

1954

CENSUS OF MINERAL INDUSTRIES

VOLUME I

SUMMARY AND INDUSTRY STATISTICS

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U. S. DEPARTMENT OF COMMERCE
Sinclair Weeks, Secretary

BUREAU OF THE CENSUS
Robert W. Burgess, Director

UNITED STATES

Census of Mineral Industries

1954

Volume I

SUMMARY AND INDUSTRY STATISTICS

Employment, Payroll, Capital Expenditures, Value Added,
Power Equipment, and Related Statistics by Industry;
Quantity and Value of Individual Supplies and Products

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Prepared under the supervision of
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This volume comprises the 1954 Census of Mineral Industries Summary and Industry Bulletins, Series MI-A thru MI-G and MI-10A thru MI-14J, and related supplementary materials.

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Preface

This is one of two volumes presenting final results of the 1954 Census of Mineral Industries. The conduct of this census depended on significant contributions from a large number of private and public organizations and individuals. Its success resulted particularly from the excellent cooperation of the approximately 32,000 mining companies in completing the appropriate report forms.

Many trade associations and hundreds of individual mining companies--large, medium, and small--as well as the Bureau of Mines, other Government agencies, and other users of statistics provided valuable assistance in determining the types of information which would be most useful. Among Government agencies other than the Bureau of Mines, especially important contributions were made by the Bureau of the Budget, the Federal Power Commission, the Bureau of Labor Statistics, the Tariff Commission, the Office of Business Economics, and the Board of Governors of the Federal Reserve System. The Advisory Council on Federal Reports provided valuable advice upon the feasibility of collecting various types of data and on ways to minimize the reporting burden for respondents. Support by the United States Chamber of Commerce, the National Association of Manufacturers, the American Mining Congress, and other business groups and timely publicity given to the minerals census (and other economic censuses) by the press, television, and radio aided materially in the collection of the reports.

The primary responsibility for the 1954 Census of Mineral Industries was centered in the Industry Division of the Census Bureau. Other divisions of the Bureau, particularly the Economic Operations Division, the Machine Tabulation Division, and the Administrative Service Division, also had important functions in the Census.

The Census of Mineral Industries was taken under the supervision of Maxwell R. Conklin, Chief of the Industry Division, and Vivian Eberle Spencer, Assistant Chief for Mineral Industries. The branch chiefs listed in the organization structure of the Division shown on the opposite page carried the principal responsibility for the major commodity areas for the minerals census within the Division. Other Industry Division staff which made very significant contributions to the preparation of report forms and instructions, the design of specifications for editing and coding the returns, the conduct of major contacts with respondents regarding the reports, analysis of coverage, and preparation and review of final text and tables were: for metal mining, William Cooper; for coal mining, Curtis O. Siegel; for crude petroleum and natural gas, Charles E. Hennig, Evelyn O. Denny, George R. Hopkins, and C. H. Wallace Sedge-
wick; for nonmetallic minerals (except fuels) mining, Sam Arnold. Evelyn O. Denny was also in charge of industry and commodity classification for the minerals census. Angela R. Daly was the Industry Division representative for preparation of publications.

The Bureau of Mines cooperated with the Census Bureau in conducting the 1954 Census of Mineral Industries. The Bureau of the Census is particularly indebted to the Bureau of Mines Office of Chief Statistician and Office of Chief Economist for their staff work in planning and conducting the census. Very valuable assistance and cooperation was provided by the Chiefs, Divisions of Anthracite, Bituminous Coal, Minerals, and Petroleum; and of the Divisions of Mineral Industries in the field offices; and by staff members of these divisions. The coal divisions and field offices of the Bureau of Mines made a major contribution in collecting a substantial proportion of the census reports on minerals, other than petroleum and natural gas, their employees acting as special agents of the Census Bureau. Much of the processing prior to machine tabulation of the anthracite and bituminous coal production reports, and of the bituminous coal distribution reports, was performed by the Bureau of Mines coal staff in Washington.

Processing of the 1954 Census of Mineral Industries reports in the Census Bureau was performed by the Economic Operations Division under the supervision of Marion D. Bingham, Chief, and Irving Weiss, Assistant Chief of Processing. Charles Merzel was directly in charge of all mailing, collection, and processing in the Census Bureau and supervised a major portion of the preparation of final tables.

C. F. Van Aken was Chief of the Machine Tabulation Division and, in that division, Catherine M. Neafsey, Chief, Economic Section, and Emil Gorgovits were responsible for the machine tabulation procedures used in this census.

Julius Shiskin, Chief Economic Statistician in the Office of the Assistant Director for Statistical Standards, as well as Harold T. Goldstein and Irving Rottenberg of that office, contributed to the coordination of the Census of Mineral Industries with the Censuses of Manufactures and Business.

Robert H. Brooks, Chief of the Graphics Branch of the Administrative Service Division, was responsible for preparing the Census of Mineral Industries publications for reproduction. Elma D. Beynon and Ingrid L. Millison of the Statistical Reports Division reviewed text material and table forms.

1954 CENSUS OF MINERAL INDUSTRIES FINAL REPORTS

Volume I: SUMMARY AND INDUSTRY STATISTICS

Summary Statistics

Chapter

- I. General Summary
- II. Size of Establishments
- III. Employment and Related Statistics
- IV. Type of Organization

Chapter

- V. Power Equipment
- VI. Energy, Water, and Selected Supplies
- VII. Type of Operation

Chapters I-VII were also issued as separate reports in Bulletin Series MI-A through MI-G

Industry Statistics

Separate chapters for each of 29 groups of related industries. These chapters include, for approximately 70 individual industries, statistics on employment and payrolls, capital expenditures, fuels, electric energy, and power equipment as well as quantities and values of individual products made and

supplies used. Included are 6 separate summary chapters for industry groups. (The 29 industry chapters were issued as separate reports in Bulletin Series MI-10A through MI-14J.)

Volume II: AREA STATISTICS

Chapters for each State, the District of Columbia, and Alaska and Hawaii. Detailed statistics by industry within State. General statistics for counties, and for selected counties by industry, with establishment counts for each

industry within county. Water use by industry within State. (The State chapters were issued as separate reports in Bulletin Series MI-100.)

1954 CENSUS OF MANUFACTURES FINAL REPORTS

Volume I: Summary Statistics

Volume II: Industry Statistics

Volume III: Area Statistics

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Volume II: Retail Trade—Area Statistics

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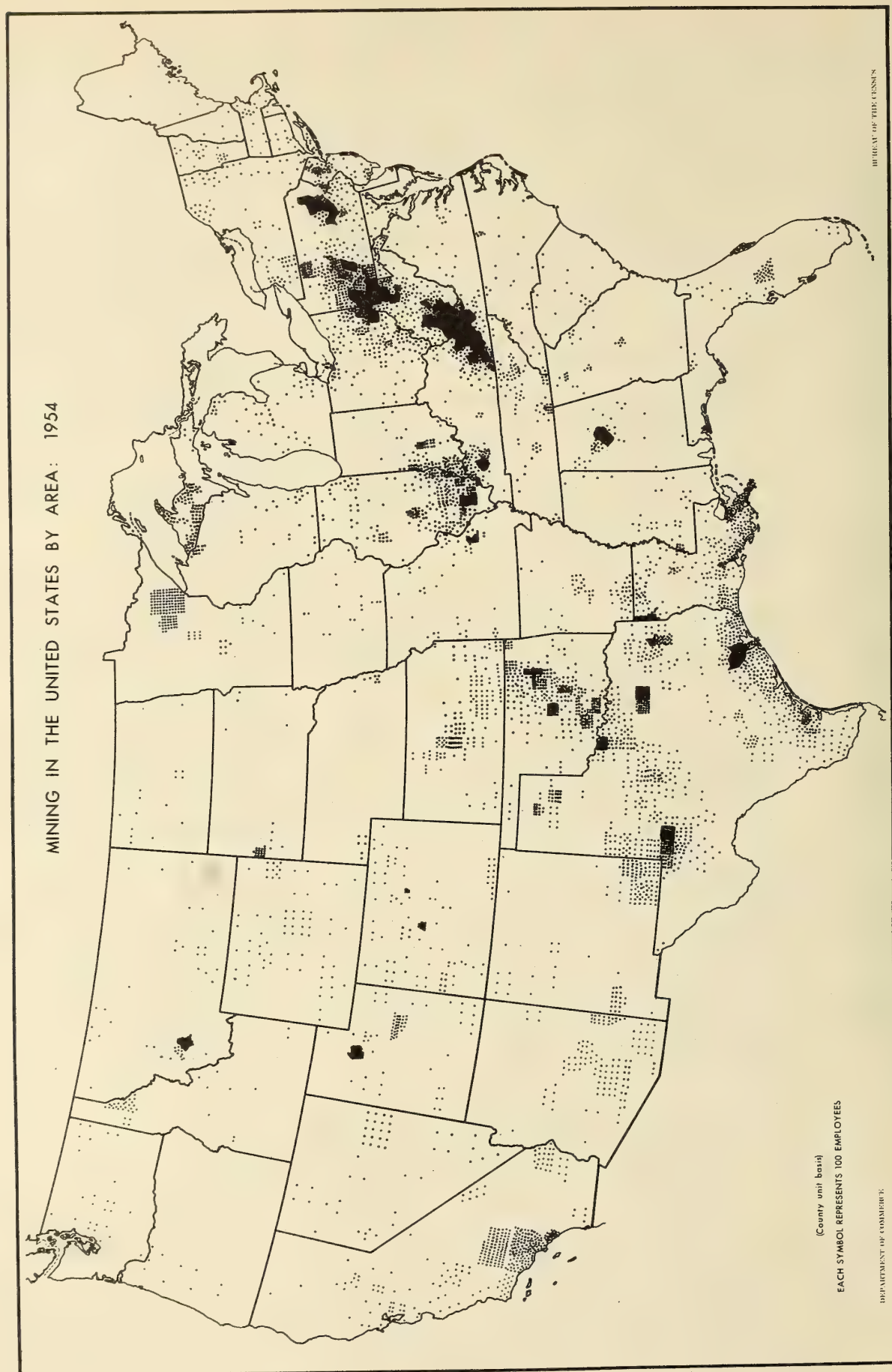
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INTRODUCTION

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3. The mineral industries and other segments of the economy
4. Definition of the mineral industries
5. Industry classification
6. Establishment statistics
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1. Earlier Censuses of Mineral Industries

The 1954 Census of Mineral Industries is the thirteenth such census of the United States. The first minerals census covered the year 1840. Such censuses have been conducted for the intervening years: 1850, 1860, 1870, 1880, 1889, 1902, 1909, 1919, 1929, 1935, and 1939. Present legislation provides for a Census of Mineral Industries to cover the year 1958 and every fifth year thereafter.

The scope and quality of the minerals censuses have varied. While many of the problems and concepts involved in such a census were recognized early, the difficulties of locating mineral operators and the meager records often maintained impaired the quality of the first few censuses. Beginning with 1880, however, fairly comparable statistics have been available. The most comprehensive previous censuses are those covering the years 1880, 1889, 1902, 1909, 1919, and 1939.

The 1954 minerals census was conducted jointly with the Censuses of Manufactures and Business (Wholesale, Retail, and Services). All of these censuses covered the continental United States, Alaska, and Hawaii. For 1954, as in previous years, most of the basic inquiries were common to the Censuses of Mineral Industries and Manufactures. The statistics published for mineral industries are generally comparable with those published for manufacturing industries, although in somewhat greater detail.

2. Publication of the 1954 Minerals Census Results

The 1954 Census of Mineral Industries final results are published in two volumes: Volume I, General Summary and Industry Statistics, shows comparative summary statistics for industries and States for such measures for mining establishments as employment; payrolls; capital expenditures; value of shipments; value added in mining; minerals received for preparation; supplies, fuels, electric energy, and water used; cost of contract work; and horsepower of power equipment. Selected industry statistics are shown by size of establishment and by type of operation. Separate reports containing detailed industry figures are included for 22 groups of industries and summary reports for 6 broader industry groups. Volume II, Area Statistics, shows for each State, and for major mining industries within the State, such statistics as indicated above, and less detailed figures for counties. A listing of number of establishments in each mineral industry by size and by county is also included for each State.

3. The Mineral Industries and other Segments of the Economy

The mineral industries in recent years have accounted for only about 2 percent of national income and have required employment of less than 2 percent of all gainful workers in the United States. Nevertheless, the mineral industries furnish an increasing proportion of the raw materials base of the economy. In 1950, the mining industries supplied 28 percent of all raw materials produced, agricultural materials, 65 percent, forest products, 6 percent, and fishery and wildlife products, 1 percent. This may be compared with averages for the first decade of this century when mineral products accounted for only 16 percent of all raw materials. Table A compares such figures for three periods in the last half century.

TABLE A.--PERCENTAGE DISTRIBUTION OF RAW MATERIALS PRODUCTION
FOR SELECTED PERIODS: 1900-1952

Raw materials group	1900-1909 average	1920-29 average	1950-52 average
All raw materials.....	100	100	100
Minerals.....	16	23	29
Agricultural materials.....	70	67	65
Forest products.....	14	9	6
Fishery and wildlife products.....	1	1	1

Source: U. S. Bureau of the Census. Raw Materials in the United States Economy: 1900-1952 (Working Paper No. 1, 1954)

Production of minerals in the United States requires a relatively much greater expenditure of capital and equipment than is needed for the manufacturing industries. Although value added in mining in 1954 amounted to less than 9 percent of total value added for mining and manufacturing combined, new capital expenditures in the mineral industries were 25 percent of the total for mining and manufacturing, and horsepower of power equipment, excluding highway-type equipment, 21 percent of the total. (See Table B.) The crude petroleum and natural gas extraction industries accounted for 21 percent of these new capital expenditures. (In comparing figures in Table B, it should be noted that value added in mining includes a measure of value added in the development of mineral properties, see section 26, and capital expenditures include expenditures for development of mineral properties, see section 23.)

TABLE B.--VALUE ADDED, EMPLOYMENT, NEW CAPITAL EXPENDITURES, AND HORSEPOWER OF EQUIPMENT
IN MINERAL AND MANUFACTURING INDUSTRIES: 1954

Item	Mineral industries		Manufacturing industries	Mineral industries as percent of mineral and manufacturing industries	
	All mining	Crude petroleum and natural gas extraction only		All mining	Crude petroleum and natural gas extraction only
Value added.....\$1,000,000..	11,546	7,674	116,913	9.0	6.0
New capital expenditures.....do..	2,614	2,157	7,818	25.1	20.7
Employment.....1,000..	786	316	16,126	4.6	1.9
Horsepower of power equipment:					
Including highway-type.....do..	40,711	20,101	(NA)	(NA)	(NA)
Excluding highway-type.....do..	29,351	12,939	108,362	21.3	9.4

NA Not available.

4. Definition of the Mineral Industries

The minerals census covers all establishments classified in Division B--Mining, according to the Standard Industrial Classification of the Bureau of the Budget (see Standard Industrial Classification Manual, Volume II, Nonmanufacturing Industries, Executive Office of the President, Bureau of the Budget, May 1949). The definition of this division provides that it includes all establishments primarily engaged in mining. This term is used in the broad sense to include the extraction of minerals occurring naturally: solids, such as coal and ores; liquids, such as crude petroleum; and gases, such as natural gas. The term "mining" is also used in the broad sense to include quarrying, well operation, milling (crushing, screening, washing, flotation, etc.), and other preparation needed to render the mineral marketable. Exploration is included as is the development of mineral properties. Contract services performed in the development of mineral properties are classified separately but within this division.

Mining operations were classified by industry, on the basis of the principal mineral produced or, if there was no production, on the basis of the principal mineral for which exploration or development work was in process. The recovery of material from culm banks, ore dumps, and other waste minerals piles was classified with the appropriate mining industry according to the mineral product recovered.

Mineral preparation plants are usually operated together with mines or quarries and frequently no separate records for them are maintained. All such preparation plants are included in the scope of the minerals census. In general, separately operated preparation plants, whether they process minerals for the account of the operator or on a custom or toll basis for others, are also included in the minerals census. Coal cleaning and sizing plants operated at mines or as separate establishments are so included. However, the crushing, grinding, or otherwise treating of certain nonmetallic minerals (except fuels) at separately operated plants is included in the Census of Manufactures.

Contract hauling (except out of open-pits in conjunction with mining) is excluded from the 1954 minerals census.

Statistics on mining operations which are carried on as secondary activities at manufacturing or other nonmining establishments (such as clay pits at clay products plants or sand and gravel operations at ready-mixed concrete plants) are not within the scope of this census. However, certain information on these operations has been obtained in the 1954 Censuses of Manufactures and Business, and is included in some of the summary and industry reports and in the State reports. Wherever such inclusion occurs, it is clearly specified.

All blast furnaces; metal smelters; metal and petroleum refineries; plants manufacturing cement, brick, tile, and pottery; and plants engaged in dressing or polishing stone are classified in the manufacturing industries. Separate reports were obtained and included in the minerals census for the few ore

dressing plants operated in conjunction with smelters and for the few natural gas liquids recovery plants operated as part of chemical establishments.

5. Industry Classification

The industry classifications used in this Census are those specified in the Standard Industrial Classification. This classification divides the "Mining" industries into five Major Groups: Metal mining; Anthracite mining; Bituminous coal and lignite mining; Crude petroleum and natural gas extraction; and Mining and quarrying of nonmetallic minerals, except fuels. These five major groups are divided into 20 subgroups and into 71 individual industries. Table C shows the relative magnitude of the 5 major groups in terms of value added in mining and employment.

TABLE C.--VALUE ADDED AND EMPLOYMENT IN THE
MINERAL INDUSTRIES, BY MAJOR INDUSTRY GROUP: 1954

Industry group	Value added in mining		Employment	
	Million dollars	Percent of total	Thousand employees	Percent of total
All mineral industries	11,546	100	786	100
Metal mining.....	1,076	9	100	13
Anthracite mining.....	197	2	37	5
Bituminous coal and lignite mining.....	1,418	12	219	28
Crude petroleum and natural gas extraction.....	7,674	67	316	40
Nonmetallic minerals (except fuels) mining.....	1,182	10	113	14

Separate general statistics are published for all but three of the SIC industries. Separate statistics for two of the SIC industries could not be published without approximately disclosing the operations of individual companies, and in 1954 there were no establishments classified in a third industry. Selected statistics are published for certain subindustries, such as oil- and gas-field exploration services, glass sand, and asbestos. The definitions of these industries and subindustries are included in the introductory texts of the pertinent industry reports.

The industry and subindustry classifications used in the 1954 minerals census are, in general, the same as the industry classifications used in the 1939 minerals census. The most significant departure in 1954 is the exclusion from the mining census of data for certain mining operations performed in conjunction with manufacturing or wholesale trade processes and operated as part of manufacturing or trade establishments. These departures are described in detail in the appropriate industry reports.

6. Establishment Statistics

The Census of Mineral Industries obtains data, on the basis of an entire establishment, for the output and shipments of mineral products; operating and development costs; and labor, mechanical equipment, and materials requirements. Because of the nature of most operators' records, these data necessarily include the secondary products of the establishment as well as the primary products which determine the industry classification. Thus, some bituminous coal mines also produce clay, many oil wells also produce gas, silver ores contain significant quantities of copper, lead, zinc, gold, and other metals. Mines producing significant quantities of two or more different minerals are classified according to the mineral of greatest value (not tonnage) shipped during the year. A mine producing ores containing both silver and lead, for instance, is classified as a silver mine if the silver contained exceeds in value the lead content and vice versa. In most mining industries, however, the production of secondary minerals is of little statistical importance. This differs from the situation in manufacturing where about half of the industries have secondary production amounting to 10 percent or more of total shipments.

Operating companies were instructed that a mineral establishment, for purposes of the census report, is generally defined as a single physical location where mineral operations are conducted; for example, a mine only, a mine and preparation plant, or a preparation plant only. An establishment in this census, in general, represents workings at a given locality in which operations are conducted as a unit or are unified by common management or joint handling of some part of the mining or preparation process. Individual shafts, openings, or sites, however, are not necessarily considered as individual establishments. In some areas separate reports were requested for open-pit and underground mines.

For oil- and gas-field operations and contract services, reports were required for units somewhat different from the "establishment" reporting unit used for other types of mining. Only one report was required for all oil- and gas-field operations of a reporting company in each State. (However, information on employment and oil production was included in this report on a county basis.) For contract service operations, only one report was required for all mineral contract services of a company in continental United States and its territories of Hawaii and Alaska.

In practice, some flexibility was allowed in the application of the establishment definition in specific industries. Where a company did not keep separate records for two or more establishments engaged in the same type of activity and located within the same State and county, a consolidated report was usually accepted and the operations counted as a single establishment. The most significant occurrence of such consolidated reports was in iron ore mining. Separate reports were usually furnished for open-pit and underground operations, but some consolidated reports were made for most industries, and such consolidation becomes very important in the anthracite industry.

Establishment counts shown in the 1954 Census are closely comparable with those for most earlier years. However, in some years, such as 1929 and 1919, consolidated reports covering two or more operations appear to have been accepted to a greater extent than in 1954.

7. Coverage of the Census

The 1954 Census of Mineral Industries excludes very small establishments and certain noncommercial operations. The small establishments excluded represent those for which each of the following three items amounted to less than \$500 for the entire year: (1) value of products shipped and services performed for others; (2) expenses for wages, salaries, supplies, minerals received for preparation, fuel, purchased electric energy, contract work, and purchased machinery; and (3) capital expenditures for development and exploration of mineral properties, new construction and major alterations, and new and used machinery and equipment.

The cut-off for establishments covered in the 1954 census was lower than in other recent minerals censuses. For 1939 and 1929, in general, small establishments were excluded if each of three similar items amounted to \$2,500, and for 1919, if value of products was less than \$500 and expenditures for development work less than \$5,000. For bituminous coal and lignite an output criteria of 1,000 tons was used in these three censuses. For 1939, common sand and gravel operations were excluded if they produced less than 15,000 tons of sand and gravel and had expenses of less than \$15,000. For 1929, common sand and gravel establishments producing less than 25,000 tons were excluded, and this industry was not covered in censuses prior to 1929. Minima for size of establishment included were not provided for earlier censuses.

The production of minerals, particularly stone, sand, and gravel, by Federal, State, and local governments is excluded from the census. Also excluded is some production of these items by highway contractors who do not maintain separate records for sand and gravel production. The census includes, however, mining establishments operated entirely to serve other establishments of the same company, such as coal mines serving only coke ovens operated by the same company, oil and gas wells serving only refineries or public utilities owned by the same company, and copper mines and mills where all of the ore is transferred to a company owned smelter.

The 1954 Census of Mineral Industries covered establishments meeting the value criteria whether or not they had employees. The mailing lists available for establishments with no employees, such as establishments for which all labor was furnished by proprietors or contractors, were somewhat less complete than for those with employees. However, it is believed that in most areas such establishments were included where they met the specified criteria. Specific limitations in such coverage are discussed in the separate industry texts.

Establishments reported as having no employees accounted for only about one percent of the value of shipments reported for all mineral industries for 1954, but represented 16 percent of all establishments included in the census tabulations and accounted for 5 percent of new capital expenditures. Establishments without employees were most important in certain metal mining industries, and in the anthracite, crude petroleum and natural gas, common clay, mica, pumice and pumicite, and peat industries. Table D shows the relative importance of such establishments by industry groups.

In general, it is believed that the 1954 minerals census reports provided essentially complete coverage of production and development operations. However, the coverage was probably somewhat less complete for the crude petroleum and natural gas industries and for anthracite. Only about 96 percent of the total shipments of oil, and possibly only 95 percent of the total shipments of gas, were covered. For anthracite only about 95 percent of the workers in the industry appear to have been reported, but estimates for such unreported operations are included. The special problems faced in covering these industries, and details on the apparent coverage attained, are discussed in the special texts for Crude Petroleum and Natural Gas and for Anthracite Mining. Undercoverage of the oil and gas industry appears to have reduced the over-all minerals census coverage to between 97 and 98 percent of the estimated total value of shipments. However, this undercoverage is more significant for certain States, particularly for Kansas, Arkansas, and Oklahoma where the apparent coverage of all mineral operations in the State was between 94 and 95 percent.

8. Census Geographic Divisions

In order to present census data at a level intermediate between the United States and the individual 48 States, the Census Bureau has used regional groupings for over a century. Beginning with the 1909 Census of Mines and Quarries, the present nine geographic divisions have been used.

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TABLE D.--NUMBER OF ESTABLISHMENTS, VALUE OF SHIPMENTS, AND NEW CAPITAL EXPENDITURES FOR ESTABLISHMENTS WITH NO EMPLOYEES, AS PERCENTS OF TOTALS FOR ALL ESTABLISHMENTS IN THE MINERAL INDUSTRIES, BY INDUSTRY GROUPS: 1954

Industry groups	Number of establishments	Value of shipments	New capital expenditures
All mineral industries.....	16	1.2	5.1
Metal mining.....	42	0.6	3.2
Iron ores.....	7	0.5	0.2
Copper ores.....	41	0.1	3.5
Lead and zinc ores.....	37	0.3	18.1
Gold and silver ores.....	51	1.4	10.2
Bauxite.....	4	(¹)	0.3
Ferro-alloy ores, except vanadium.....	63	3.0	4.2
Metal mining contract services.....	5	(¹)	(¹)
Miscellaneous metal ores.....	29	21.1	6.1
Anthracite mining.....	46	9.9	5.8
Bituminous coal and lignite mining.....	8	0.5	0.1
Crude petroleum and natural gas extraction.....	11	1.1	5.6
Crude petroleum and natural gas.....	17	1.5	6.0
Natural gas liquids.....	1	(¹)	2.7
Oil and gas field contract services.....	2	0.1	(¹)
Nonmetallic minerals (except fuels) mining.....	15	0.7	3.6
Dimension stone.....	9	1.5	.....
Crushed and broken stone.....	5	0.4	0.3
Sand and gravel.....	12	0.9	0.7
Clay, ceramic, and refractory minerals.....	21	2.6	9.9
Natural abrasives, except sand.....	28	2.3	3.4
Chemical and fertilizer mineral mining.....	27	0.2	11.7
Nonmetallic minerals (except fuels) contract service.....	6	0.3	0.3
Miscellaneous nonmetallic minerals (except fuels).....	51	2.5	2.7

¹Less than 0.05 percent.²Excludes figures for the Uranium-radium-vanadium ores industry.

Not only are these groupings convenient for the summary presentation of census statistics below the United States level, but they are needed to present uniform geographic information for those individual industries in which application of the Census disclosure law precludes the publication of individual State figures. The relative importance of the mineral industries in 1954 among States and geographic divisions is shown in Table E.

9. Cooperation with the Bureau of Mines

The Bureau of the Census cooperated with the Bureau of Mines, United States Department of the Interior, in conducting the 1954 minerals census for industries for which the Bureau of Mines had been conducting annual commodity surveys. The purpose of this cooperation was to avoid duplicate canvassing of respondents for production statistics, and to make sure that all mines on Bureau of Mines mailing lists were covered.

TABLE E.--VALUE ADDED IN MINING BY GEOGRAPHIC DIVISIONS AND STATES: 1954

Division and State	Value added in mining (million dollars)	Per-cent	Division and State	Value added in mining (million dollars)	Per-cent	Division and State	Value added in mining (million dollars)	Per-cent
United States, total	11,546	100.0	West North Central--Con.			West South Central.....	5,210	45.1
New England.....	32	0.3	Missouri.....	57	0.5	Arkansas.....	108	0.9
Maine.....	2	(¹)	North Dakota.....	7	0.1	Louisiana.....	985	8.5
New Hampshire.....	2	(¹)	South Dakota.....	22	0.2	Oklahoma.....	584	5.1
Vermont.....	11	0.1	Nebraska.....	29	0.3	Texas.....	3,533	30.6
Massachusetts.....	9	0.1	Kansas.....	359	3.1			
Rhode Island.....	1	(¹)				Mountain.....	1,305	11.3
Connecticut.....	8	0.1	South Atlantic.....	761	6.6	Montana.....	83	0.7
Middle Atlantic.....	767	6.6	Delaware.....			Idaho.....	39	0.3
New York.....	97	0.8	Maryland.....	18	0.2	Wyoming.....	258	2.2
New Jersey.....	39	0.3	District of Columbia..			Colorado.....	205	1.8
Pennsylvania.....	632	5.5	Virginia.....	89	0.8	New Mexico.....	338	2.9
East North Central.....	813	7.0	West Virginia.....	513	4.4	Arizona.....	178	1.5
Ohio.....	167	1.4	North Carolina.....	31	0.3	Utah.....	152	1.3
Indiana.....	85	0.7	South Carolina.....	10	0.1	Nevada.....	53	0.5
Illinois.....	375	3.3	Georgia.....	33	0.3			
Michigan.....	149	1.3	Florida.....	67	0.6	Pacific.....	1,350	11.7
Wisconsin.....	37	0.3	East South Central.....	521	4.5	Washington.....	22	0.2
West North Central.....	786	7.0	Kentucky.....	272	2.4	Oregon.....	13	0.1
Minnesota.....	290	2.5	Tennessee.....	61	0.5	California.....	1,315	11.4
Iowa.....	22	0.2	Alabama.....	94	0.8			
			Mississippi.....	94	0.8			

¹Less than 0.05 percent.

The Bureau of Mines acted as collection agent for about one-third of the establishment reports for the 1954 Census of Mineral Industries, including almost all companies having only one establishment in the metal mining and coal areas and about one-half of such reports in the nonmetallic minerals, except fuels, industries. The Bureau of the Census collected all reports for multiestablishment companies and all reports for the crude petroleum and natural gas, stone, clay, and certain other nonmetallic minerals industries.

Bureau of Mines Field Office employees, acting as special agents of the Bureau of the Census, received the Census reports for the metal mining and nonmetallic minerals, except fuels, industries. They also conducted the followup of delinquents and performed certain initial processing of the reports. For coal, the Bureau of Mines used its Washington office employees to perform similar functions, again acting as special agents of the Census Bureau. For the coal industries the Bureau of Mines also had a major responsibility in the editing of the reports.

10. Census Mailing List

The basic mailing list for the 1954 Censuses of Business, Manufactures, and Mineral Industries comprised all employers (except farmers, State and local governments, and a few other classes) who made one or more quarterly payments in 1954 under the Federal Insurance Contributions Act. The list was obtained from the Internal Revenue Service of the Treasury Department. It contained all of the information necessary for mailing of the Census questionnaires except the industry classification of the employer.

The IRS list was compared with various lists carrying the industry identification necessary for selection of the appropriate Census questionnaire. The information common to both the IRS list and certain of the classified lists was the Social Security employer identification number.

The principal source of industry codes was the "employer master file" of the Bureau of Old Age and Survivors Insurance of the Social Security Administration. The latter file was supplemented by Bureau of Mines lists, which also furnished the principal source of names, addresses, and industry classifications for establishments without employees. In addition, for the oil and gas industries, it was supplemented by a list from the Petroleum Administration for Defense, by a list from the Federal Power Commission, and by certain trade association lists.

In order to correct and consolidate these lists, and to provide information on individual establishments operated by multi-unit companies and additional names and addresses of contractors, limited prec canvasses were conducted in the autumn of 1954.

In the 1954 Census the report forms were distributed and returned by mail. Personal or telephone contact was made only when the operator did not respond to the initial request or follow-up letter. All forms were mailed from Washington and, except for forms collected by the Bureau of Mines, the follow-up was controlled from Washington.

At various stages of processing of the reports coverage checks were conducted to determine whether establishments on the original list were represented in the processing stage under study. Moreover, many comparisons were made with mailing lists being used currently by the Bureau of Mines. These checks indicated virtually complete mailing of reports to all names on the mailing list. For omissions discovered in these checks, either the missing reports were located or new reports obtained.

11. Census Report Forms

Only one report form was required, in general, for the operations of each establishment. The report forms used were adapted to the 71 industries classified in mining, 34 different establishment forms being provided for the 1954 minerals census. These included 26 standard forms used for all large

and multiestablishment companies and 6 short forms used for certain small establishments. (Only about 1,500 of the approximately 38,000 reports in the minerals census were tabulated from short forms.) The same basic information was requested in all establishment report forms. However, the inquiries in the forms were adapted in terminology and detail for each form.

In addition to the establishment report forms, a few special purpose forms were provided. These included: (1) a form on distribution of bituminous coal and lignite required for each coal district in which a company operated coal mines and (2) a form on offshore oil and gas operations required for each State in which a company performed such operations. In addition, there was a form used throughout the 1954 Censuses of Business, Manufactures, and Mineral Industries for separately operated central offices and auxiliary units.

12. Comparison of 1954 and 1939 Census Report Forms

The inquiries on the 1954 census forms were very similar, in general, to those on the 1939 forms. Some new information was obtained, however, and there were some differences in the way basic information was requested:

(a) The 1954 report forms requested quantity and value of shipments in all cases and only occasionally also provided for information on production, whereas output data for 1939 were requested in terms of production for all industries and data on shipments were not requested in most cases. This change is, in part, a recognition that respondents records are most commonly in terms of shipments and these records will be used in supplying the information whether production or shipments data are requested. For most mineral industries stocks of minerals ready for market are small and it is probable that the change from production to shipments introduced very little incomparability in the series for quantity and value of output.

(b) For 1954, employment data were requested in terms of "production and development workers" and "all other employees," whereas, for 1939, the terms "wage earners" and "salaried employees" were used. Similar definitions were provided for both years, however, for these two classes of employees. The change in terminology was similar to that made in manufacturing after 1939 and was made to emphasize that the classification was intended to distinguish classes of work performed rather than methods of payment. It is believed that the difference in definition had no significant effect on the comparability of the 1954 and earlier statistics.

(c) Employment data were requested for only four selected months for the Crude petroleum and natural gas extraction industries for 1954, but 12 monthly figures were requested for other mineral industries in recognition of the relatively high seasonal characteristics of these industries. Figures for 12 months were requested for all industries in the 1939 census.

For 1954, the data by month were obtained for all employees. For 1939, the monthly figures were for wage earners only and data for salaried employees were requested for the payroll period ended nearest October 14.

(d) Separate information was obtained for the first time, and for all industries, for man-hours devoted to development and exploration work.

(e) Quantity and value of minerals received for preparation were obtained for almost all industries in 1954, and in nearly all of the report forms shipments of crude and prepared minerals were segregated. These data made it possible to publish both gross and net shipments for most industries in 1954. Data on minerals received for preparation were not obtained for 1939, and for most industries only figures for net production could be published. (See also section 25.)

(f) Capital expenditures for development and exploration of mineral property were included for 1954, as they had been only twice before, for 1929 and 1919. (For 1929, however, no data

were obtained on oil and gas field operations.) Figures for other capital expenditures were comparable with those obtained for 1939, except that separate data were requested for 1954 on expenditures for "preparation plant construction" and for "other construction." The 1954 census obtained, for the first time, information on total capital expenditures. It also obtained the cost of purchased machinery installed, included only once before, in the 1929 census. These figures for total capital expenditures and cost of purchased machinery made it possible to compute the first fairly adequate measure of value added in mining (see section 26-Value added in mining).

(g) The first information on water used in all mineral industries was obtained in the 1954 census. The quantity and cost of explosives and of steel mill shapes and forms were also included for the first time for all metal mining and coal mining industries; and for the coal industries the first data were collected on the cost of round and hewn woods products and stumpage, and on the quantity of rough lumber produced for use at the same establishment.

13. Establishment Location and Company Characteristics

Tabulations of Census data are provided by geographic area and a limited amount of information was also compiled on company affiliation characteristics. To permit adequate classification in this manner, specific questions were included on the location of the mine and any associated mineral preparation plant. Information was requested on whether the company was incorporated, or was an individual proprietorship, partnership, or other type of organization; on company affiliation; and on the predecessor or successor, if the operation changed hands during 1954.

All 1954 industry forms requested the Social Security employer identification number. This facilitated efforts to assure that all mining establishments included in the social security records were included in the census and helped to avoid the inclusion of duplicate reports.

14. Type of Operation

The type of operation statistics in all industry reports are based primarily on replies to a check box inquiry which listed the usual mining and mineral preparation methods used in a particular industry. The respondent was asked to check each method used in the establishment reported and to underscore the dominant method. Wherever possible, separate statistics are provided on establishments using underground mining methods, using a combination of underground and open-pit methods, and using open-pit methods only. For selected industries, separate statistics are provided by type of underground mining, such as for establishments having as the dominant method open stoping, shrinkage stoping, square setting, or block caving. Separate figures are provided, where possible, for mines with and without preparation plants; and, for establishments with preparation plants, classified by the dominant preparation method, such as crushing, washing, flotation, or gravity concentration. Separate statistics are also provided on producing and nonproducing operations, an establishment being defined as nonproducing if no mineral products were shipped during the year. For the crude petroleum and natural gas industries, details were obtained on the type of wells drilled and operated and reports were classified on the basis of whether they represented oil wells only, both oil and gas wells, or gas wells only, on the basis of whether or not they included drilling, as well as on the basis of whether part of the operations were performed by contractors or on contract for others.

15. Number of Operating Companies

For the purpose of this census, an operating company is defined as a corporation, individual proprietorship, partnership, cooperative, or other organization, regardless of size, directly engaged in production or development activities at one or more mineral establishments. An operating company may own the property operated or be the lessee of such property or operate for the account of others on a contract or fee basis.

Regardless of the number of establishments operated by a company, or the number of States operated in, the company is counted only once in summary statistics. Hence, the sum of the detailed statistics for number of operating companies is usually greater than the statistics shown for group totals.

16. Persons Engaged

The employment statistics represent all full-time and part-time employees at the establishment who worked or received pay for any part of the pay period ending nearest the 15th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacation during these pay periods. Also included are employees of miners paid on a per ton, car, or yard basis. Excluded are employees at the mine but who were on the payroll of another employer (such as employees of contractors) and employees at company stores, boarding houses, bunk houses, and recreational centers. Also excluded are members of the armed forces, and pensioners carried on the rolls but not working during the period. Officers of corporations are included as employees; but proprietors and partners of unincorporated firms are excluded.

This total employment is divided into two functional classifications comparable with the basic classifications used for the manufacturing industries. (The manufacturing classification is based on the Bureau of the Budget's Standard Specifications for Employment Reports of November 1944.)

The instructions to mining companies for reporting these two employee classifications were as follows:

Production, development, and related workers--Employees up through the working foreman level engaged in manual work, using tools, operating machines, hauling materials, loading and hauling products out of the mine in mine cars or trucks, and caring for mines, plants, mills, shops, or yards. Included are exploration work, mine development, storage, shipping, maintenance, repair, watchmen services, auxiliary production for use at establishments (such as power plant), record keeping, and other services closely associated with these production and development operations at the establishment covered by the report. Gang and straw bosses and foremen who performed manual labor are included, as are employees paid on either a time- or piece-rate basis. Also included are miners paid on a per ton, car, or yard basis and the men engaged by them and paid out of the total amount received by these miners, and other employees at the establishment but not on its payroll if paid directly through its own employees, such as superintendents and foremen. Supervisory employees above the working foreman level are excluded from this category.

All other employees--Nonproduction personnel at the establishment and above the working foreman level. These are engaged in such activities as supervision, sales, highway trucking (by employees not entering mines or pits), advertising, credit collection, clerical, and routine office functions, executive, purchasing, finance, legal, personnel (including cafeteria and medical), professional (such as engineers and geologists), and technical activities. Also included are force-account construction workers engaged in the construction of major additions or alterations to the plant who are utilized as a separate work force. (Workers engaged in regular maintenance and repair operations are not included here but are classified as "production, development, and related workers.")

Employees at an office located at or near the mining establishment are usually included in the mine report. Where such offices or auxiliary units were reported separately their employees are included in the totals for individual industries and the State tables for each industry, but are not classified by type of operation or by frequency class in frequency tabulations. These figures, classified by industry, are also shown separately in report A. This practice differs from that used in the Census of Manufactures, in which employment at central

administrative offices and auxiliary establishments were included in total manufacturing but not in individual industries.

In the mineral industries reports, besides these statistics on two types of employment, figures are shown on the total number of proprietors and firm members, and separately on the number of these who regularly performed production or development work.

17. Monthly and Average Employment

The average employment statistics represent, in general, averages of reported employment for the midmonth pay period for the 12 months of the year. However, the 1954 Census report forms for the crude petroleum and natural gas extraction industries requested employment figures for only four selected pay periods (midmonth employment in March, May, August, and November).

This latter approach was used for oil- and gas-field operations, as for most manufacturing industries, to simplify the schedule format and lighten the reporting burden of respondents, since for these operations it appears that the average obtained by using 4 months approximates very closely the average which would be obtained by using 12 pay periods. The mid-March, rather than mid-February, pay period was selected to agree with the pay period for which employment data are reported to the Bureau of Old Age and Survivors Insurance, thus permitting coordination of the Census and BOASI records.

This average employment for mines, based on 4 or 12 monthly figures, is generally comparable with employment statistics compiled for manufacturing and mining by other Government agencies but is lower than the measure used in annual accident and other reports to the Bureau of Mines. The latter measure represents "average number of employees on active days," excluding shut-down periods. To maintain comparability with the Bureau of Mines annual reports, the second measure was also provided for on the coal reports. In the case of anthracite for 1954, the average number of employees on active days exceeds the average for 12 months by about 25 percent.

18. Production and Development Worker Man-Hours

The total man-hours figures represent all man-hours of production and development workers (as defined in Section 16) which were worked on both active days on which there was production or development work and on inactive days when only watchmen, inspectors, repairmen, and other maintenance men were on duty. They include all man-hours worked or paid for at the mining operations, except hours paid for vacations, holidays, or sick leave, when the employee was not at the mine. Included are actual overtime hours, not straight-time equivalent hours. Man-hours of working proprietors are excluded.

The Census man-hour figures differ from those published monthly by the Bureau of Labor Statistics which cover all hours paid for, whether or not worked, and relate only to the payroll period ending nearest the middle of each month. They differ from man-hours collected by the Bureau of Mines which include data for all employees classified as exposed to accidents, rather than only production and development workers.

Census man-hour figures were collected separately by department, such as for work in underground mining and development, in open-pit mining and stripping, at surface shops and yards for the mine, and at preparation plants (including auxiliary works for these plants). For the oil and gas industries, separate figures were obtained for operating and maintaining wells, for drilling wells and rig building, and for exploration work. For industries in which there is a significant amount of dredge activity, separate figures were obtained for man-hours on floating equipment. A separate figure was also obtained on man-hours devoted to development and exploration work and charged to capital or depletion accounts.

Man-hours were well reported for the larger establishments, although the distribution by department was inadequately reported in some instances. Where total man-hours, or the distribution by department, were not reported and it was

not feasible to obtain the information by correspondence, the data were estimated. Since such estimates were usually for small establishments, they have little effect on the validity of the statistics, except possibly those for small operations in the size of establishment tabulations.

19. Wages and Salaries for the Year

These items represent the gross earnings paid in the calendar year to all employees on the payroll of mining establishments, and are comparable with the definition of payrolls used for the Federal withholding tax. They include all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind; prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern. It excludes payments to members of the armed forces and pensioners carried on the active payroll of mining establishments. Also excluded are royalty payments to unions and costs of smithing, explosives, fuses, electric cap lamps, and mine supplies used in production and development work but charged to employees and deducted from their wages.

The Census definition of payrolls is that recommended to all Federal statistical agencies by the Bureau of the Budget. It should be noted that it does not include employers' Social Security contributions, or other nonpayroll labor costs such as employers' pension plans, group insurance premiums, and workmen's compensation. It should be noted also that these payrolls include wages for development and construction work which would be charged to the capital account.

As in the case of employment figures, the payrolls of separately reported offices and auxiliary units are included in the industry and State tables, but also shown separately by industry in report A.

20. Supplies and Related Costs, Contract Work, and Purchased Machinery

The 1954 Census report forms requested information on supplies, fuels, and electric energy used; on contract work done by others; and on purchased machinery installed for each establishment. These items included charges to both the current and capital accounts. The figures reported were to include items used during 1954 whether purchased, withdrawn from inventories, or received from other establishments of the company. For selected supplies and fuels and for electric energy both quantity and cost data were requested. The cost data refer to direct charges actually paid or payable (after discounts) for items used during the year. Freight charges and other direct charges incurred by the establishment in acquiring the items are included. Where the company's records did not show actual amounts used, they were asked to approximate use by adding purchases (or receipts) during the year to opening inventory and subtracting closing inventory.

Separate figures were obtained for (a) selected supplies for some industries; (b) the value of minerals received for preparation (see Section 12); (c) the amount paid for electric energy purchased; (d) the amount paid for all purchased fuels used for heat, power, or the generation of electricity; (e) the cost of contract work done by others; (f) the cost of products bought and resold in the same condition; and (g) the cost of purchased machinery installed. Supplies and equipment used in mine development and plant expansion and capitalized repairs, which are chargeable to fixed assets accounts, were included as were supplies furnished without charge to contractors for use at the mining operation and also supplies sold to employees for use at the establishment (see Section 19). No data were obtained on such costs as advertising, insurance, telephone, and research and consulting services of other establishments; or on overhead costs, such as depreciation charges, rent, interest, and royalties.

Under contract work, companies were instructed to report the total amounts paid or due for contract services performed

during the year, including payments for supplies and equipment furnished by the contractor incidental to this work. If part of the payment to contractors was in materials produced, the respondent was asked to estimate the value of the service performed. However, payments to miners paid on a per ton, car, yard, or footage basis were included under payrolls rather than under contract work (see Section 19).

Under purchased machinery, companies were instructed to report all machinery, equipment, and parts for renewals and repairs, including equipment installed in the mine or mill as well as mobile loading and transportation equipment.

21. Specific Supplies Used

In the 1954 minerals census, uniform quantity and cost data were obtained on the use of selected supplies. Comparable statistics on these items are not available for previous years. Collection of the supplies data was coordinated with the expanded manufactures statistics program for the 1954 Census, which obtained data on 230 materials for every industry that consumed appreciable quantities of them.

For the minerals census, data on the quantity and cost of explosives and of steel mill shapes and forms used were obtained for the metal mining industries and for coal mining, and also, for coal mining, data were obtained on the cost of round and hewn woods products and stumpage, and on the quantity of rough lumber produced for use at the same establishment. For the crude petroleum and natural gas industries, data were obtained on the quantity and cost of gas purchased for gas lift and repressuring.

22. Minerals Prepared

On report forms for almost all mineral industries, except the oil and gas and contract services industries, a uniform inquiry was included on minerals prepared at the reported establishments. Separate quantity figures were obtained on minerals prepared from three sources: (a) crude minerals mined at the establishment; (b) crude minerals received from other establishments of the company or purchased from others (quantity and cost); and (c) crude minerals received for preparation on a custom or toll basis (quantity and estimated value).

23. Capital Expenditures

In the 1954 Census, mining companies were asked to report expenditures made during the year for development and exploration of mineral properties, for new construction, and for machinery purchased at their operations that were chargeable to fixed-assets accounts of the mining establishments and were of a type for which depreciation, depletion, or Defense Minerals Exploration Administration accounts are ordinarily maintained. Capital expenditures during 1954 were to be determined as: additions completed during the year plus construction-in-progress at the end of the year minus construction-in-progress at the beginning of the year. Reported capital expenditures were to include work done on contract as well as by the mine forces. Expenditures for machinery and equipment were to include those made for replacement purposes, as well as those for additions to capacity. Excluded from such expenditures totals are costs of maintenance and repairs charged as current operating expense. Also excluded are expenditures for land and mineral rights.

Wherever applicable, separate figures were provided on expenditures for: (a) development and exploration of mineral property, (b) preparation plant construction and major alterations, (c) other construction and major alterations, (d) new machinery and equipment, and (e) used plant and used equipment acquired from others. The 1954 minerals census was the first to cover the totality of these items. However, for 1939, data were obtained on (b) and (c) combined and separately on (d) and (e). For 1929 and 1919, data were obtained on (a). "New capital expenditures" shown in certain tables consist of items (a) through (d) above. This figure is comparable with that shown for manufacturing and avoids the duplication inherent in including used equipment.

The census figures for capital expenditures differ from those based on the joint Office of Business Economics-Securities and Exchange Commission sample survey not only because of errors due to sampling but much more due to the differences in scope of the surveys. Whereas census figures cover all mining establishments, but exclude all establishments of reporting companies which are not classified in the mineral industries, the OBE-SEC figures are based on reports for an entire company, classified on the basis of its principal activities. For this reason many large metal mining and oil and gas establishments are included, for example, in the OBE-SEC tabulations as part of manufacturing. Both series, however, exclude expenditures at establishments owned by Federal or State Governments but operated under lease or contract by private companies.

24. Individual Products

In the 1954 Census of Mineral Industries, information on output of about 760 individual mineral product items was collected. The list of products for which separate information was collected was prepared after extensive consultation with industry and Government representatives. The detail provided for many industries was also greatly influenced by the type of detail usually collected in the Bureau of Mines annual surveys and needed by that agency to maintain comparability.

In general, figures were collected on both quantity and value of shipments. The shipments include commercial shipments and transfers of products to other operations of the same company. For products which are used to a significant extent within the same establishment for power or heat, and for minerals mined and prepared in the same establishment, total production or separate data on production for such uses were collected. Typically, production was also collected for products for which there are usually significant differences between total production and total shipments as a result of stock changes.

For contract service industries the amount received or due for services performed during 1954 was collected as a measure of output. For mine operators who also perform contract services the amount received for such services was added to the total value of products shipped to determine total "value of shipments" for each establishment.

Table 5 of each report for individual industries provides the national and regional total shipments from all industries for each of the products primary to the industries covered in the report. Wherever possible, it provides separate totals for the amount of each product made by the primary industry and the amount made by other industries.

25. Shipments, Production, Custom Milling, and Net Shipments

"Shipments" figures include all products physically shipped from the establishment during 1954, including material withdrawn from stockpiles, and products shipped on consignment, whether or not sold in 1954. Prepared material or concentrates include preparation from ores mined at the same establishment, purchased, received from other operations of the same company, or received for milling on a custom or toll basis. For products transferred to other establishments of the same company or prepared on a custom basis, the company was requested to report the approximate commercial value not merely the cost of producing the items. All values were requested f.o.b. the establishment reported.

The figures for "Value of shipments" of an industry include for all establishments classified in the industry: (a) the value of all "primary" products of the industry; (b) the value of "secondary" products which are primary to other industries; (c) the receipts for contract work done for others (except custom milling); and (d) the value of products purchased and resold without further processing. Receipts for custom milling are omitted from this total and shown separately to avoid duplication with the value of custom milled ores included in (a) or (b).

For industry and industry group totals some duplication is introduced by the inclusion of materials transferred from one

establishment to another for mineral preparation. In general, where this duplication is significant, figures are shown both for "gross" and "net" shipments. The "net" shipments are obtained by subtracting the value of crude minerals transferred to other establishments for preparation from the "gross" shipments. Wherever value of shipments is shown without further specification; it represents gross shipments.

For years prior to 1954, data on shipments were not collected. Instead, the report forms requested data on the quantity and value of production. In general, the data for these years were edited to represent "net" production, excluding duplications due to mining and later milling of the same material.

Another source of duplication in the industry totals, particularly in the major group totals, for value of shipments is the inclusion of the cost of contract work performed by one establishment for another as well as the value of products produced by the assistance of this contract work. Only part of the contract work performed during a given year, however, results in production during that year. Another significant portion results in capital additions to the industry. It was not possible to segregate these two types of contract work in the census tabulations and the exclusion of all receipts for contract work in a computation of net shipments must be considered an over adjustment. Of the types of contract work classified in the mining contract services industries, only contract mining of minerals and contract pumping of wells would always warrant deduction as duplication in the value of shipments totals, and these items amounted to less than 5 percent of the total receipts for contract work by minerals establishments in 1954.

A third element of duplication in the total value of shipments for all mineral industries, and in the major group totals for the fuel producing industries, is the transfer of coal and natural gas from one mining establishment to another for use for power or heat. The total value of such fuels transferred for use in all mineral industries, however, was only \$44 million, or less than 0.3 percent of the gross value of shipments for all mineral industries.

Table F shows, for major industry groups, gross shipments and two approximate computations of net shipments, the first adjusted only for the transfer of minerals from one establishment to another for preparation and the second adjusted also by exclusion of all receipts for contract work. This second adjustment, for the reasons indicated above, is made only in Table F, and nowhere else in the 1954 census reports.

TABLE F.--GROSS AND APPROXIMATE NET SHIPMENTS IN THE MINERAL INDUSTRIES, BY MAJOR INDUSTRY GROUP: 1954

Industry group	Gross shipments (million dollars)	Net shipments (million dollars)	
		Adjusted for transfer of minerals	Adjusted for transfer of minerals and for contract work
All mineral industries.....	14,907	14,166	12,492
Metal mining.....	1,506	1,361	1,321
Anthracite mining.....	408	291	248
Bituminous coal and lignite mining.....	2,068	¹ 1,806	1,787
Crude petroleum and natural gas extraction.....	9,342	9,169	7,613
Nonmetallic minerals (except fuels) mining.....	1,582	1,539	1,523

¹Adjusted also to exclude duplication of coal transferred to other establishments in the same industry for resale without preparation.

26. Value Added in Mining

This measure is shown for the first time in Census publications for 1954. It is computed for 1954 by subtracting the cost of supplies, fuels, purchased minerals received for preparation, electric energy, contract work, and purchased machinery from the value of shipments and capital expenditures. This statistic avoids the duplication in value of shipments which results from the use of products of some establishments as supplies, energy sources, or materials by others. Moreover, it provides a measure not only of value added in mineral production but also in the development of mineral properties. For these reasons it is considered to be the best value measure for comparing the relative economic importance of mining among industries and geographic areas.

"Value of shipments" used in this calculation includes the shipments of all products made in the mining establishment, together with receipts for contract work done for others. "Capital expenditures" used includes expenditures for development of mineral properties as well as for new construction and major alterations of preparation plants and other structures and expenditures for new and used machinery and equipment. The "costs" used in this calculation include costs charged to both the current and capital accounts. Both the shipments and costs figures include products bought and resold in the same condition.

For 1939 and earlier years, comparable data are not available for capital expenditures or for costs of capitalized supplies and equipment. However, a rough measure of value added in mining is computed for these years by subtracting from the value of shipments the cost of supplies, minerals received for preparation, fuels, purchased electric energy, and contract work.

Value added in mining differs from "national income originating in mining," as presented in the national income estimates compiled by the Office of Business Economics, Department of Commerce. The latter measure is the sum of factor costs incurred by an industry in production. It excludes, in addition to cost of materials, such costs as depreciation charges, State and local taxes (other than corporate income taxes), allowance for bad debts, and purchases of services from other economic sectors, such as contract services classified in other sectors, services of engineering and management consultants, advertising, telephone and telegraph expenses, insurance, royalties, etc. It is, therefore, a more "net" concept for value added in mineral production than that used in the minerals census. On the other hand, the OBE figures do not include a measure of value added in development of mineral properties.

27. Horsepower of Equipment

Beginning with 1870, statistics on the horsepower rating of power equipment have been collected in all minerals censuses, except in the abbreviated one for 1935.

As in previous censuses, separate figures were obtained on prime movers driving generators and those not driving generators. Separate figures are also published for electric motors driven by purchased energy and for those driven by energy generated. In accordance with the international convention, and as in previous censuses, aggregate horsepower was computed as the sum of the horsepower of all prime movers and the horsepower of electric motors driven by purchased energy.

In the 1954 Census, for all mineral industries except oil and gas, separate figures were obtained on "loading equipment," "transportation equipment," and "all other" equipment. It was specified that "loading equipment" should represent such equipment as power shovels, dragline excavators, and scrapers, including both underground and surface equipment. Examples of items to be included under "transportation equipment" were locomotives, tractors, trucks, and shaft hoists.

Some of the major items included under "all other," are drills, compressors, machine tools, pumps, and preparation plant machinery.

For the mineral industries, transportation equipment is particularly important in the total use of energy. Some of this equipment is of highway-type, and would be included also in the Interstate Commerce Commission figures on licensed vehicles operating on public highways. In order to measure the extent of overlap with ICC figures, separate data were requested on highway-type equipment.

No data were obtained on highway-type equipment used in the manufacturing industries, where a major portion of such equipment is probably used for delivery of products. For the mineral industries, such equipment is more frequently used for functions that cannot be segregated from mining and development of mineral properties. Table G shows that such equipment had over one-fourth of the total horsepower used in the mineral industries, and over one-third of total horsepower of all equipment used in the crude petroleum and natural gas extraction industries.

TABLE G.--HORSEPOWER OF POWER EQUIPMENT USED IN THE MINERAL INDUSTRIES, BY TYPE OF EQUIPMENT: 1954

Type of equipment	Horsepower of power equipment (1,000)	
	All mineral industries	Crude petroleum and natural gas extraction only
All equipment, total.....	40,711	20,101
Loading equipment.....	3,759	(¹)
Transportation equipment, total.....	15,007	7,162
Highway type.....	11,360	7,162
Other.....	3,647	(¹)
All other equipment.....	21,945	¹ 12,939

¹For the crude petroleum and natural gas extraction industries only highway-type and all other equipment were segregated by type.

Respondents were requested to report the total horsepower rating of all equipment (except electric motors of less than one horsepower) in use or available for use at the end of 1954. They were to include emergency or stand-by equipment and equipment temporarily idle for repairs, excluding only junk. Companies were requested to include both stationary and mobile equipment. It was specified that all engines and turbines should be reported, such as steam and internal-combustion engines, hydroturbines, and water wheels. Moreover, both owned and rented equipment at the establishment was to be reported.

Separate data were not requested for 1954 on the horsepower of electric motors driven by purchased energy and of those driven by energy generated at the establishment. This segregation was made for 1954 on the basis of reported figures for the quantity of purchased electric energy used and the quantity generated and used. For establishments both purchasing and generating energy, the horsepower of electric motors was allocated in proportion to the energy used from each source.

28. Energy Used

The 1954 Census of Mineral Industries obtained data on the quantity and cost of fuels and electric energy used in mining which are comparable, in general, to such data obtained in the 1939, 1929, and 1919 censuses. Separate quantity and cost figures were provided on purchased coal, fuel oil, gas, and electric energy, and a cost figure was obtained for other fuels.

To supplement the data on energy and energy materials purchased, data were obtained on the quantity of such items

produced and used at the same establishment. In the minerals census, such data were obtained on coal, crude petroleum, and natural gas used at the producing establishment for power and heat, and on electric energy generated and used at the same mining operation. For electric energy, the figures actually collected represented total quantity generated (excluding generating-station use) and quantity and value of electric energy generated and sold. The difference between these two quantity figures represented electric energy generated and used.

In order to provide total figures for energy used in specific industries, States, and types of operations, the energy figures were reduced to a common unit of measure representing kilowatt-hours, the international unit of energy. These figures include an estimated kilowatt-hour equivalent for "Other fuels" for which only "Cost" was reported. The conversion factors used in computing these kilowatt-hour equivalents were:

Bituminous coal.....	1 ton	= 7,677 kwh
Anthracite.....	1 ton	= 7,443 kwh
Distillate fuel oil.....	1 barrel	= 1,707 kwh
Residual fuel oil.....	1 barrel	= 1,842 kwh
Natural gas.....	1 MCF	= 307.7 kwh
Other fuels.....	\$1	= 250 kwh

29. Water Use

The first census data on water use in the mineral industries were obtained for 1954. In order to facilitate reporting, only a very few items on water use were requested and the figures were collected in millions of gallons. Only total intake and source of water were required for establishments with total intake and total water pumped for drainage amounting to less than 10 million gallons. It appears that nearly complete coverage of water use in the mineral industries was obtained.

All respondents were required to report total water intake (except mine water) and to indicate the principal source of the fresh water: public systems (municipally or privately owned), company surface systems, and company ground systems. For areas other than oil and gas, data were also obtained on water discharged (except mine water), on mine water used, on mine water drained and discharged, and on the incidence of recirculation and the estimated total amount of water which would have been required if no water had been recirculated. This is shown as "Gross water use" in Table 13 of the industry reports.

For oil and gas field operations, separate data were obtained on fresh and brackish (salt) water intake and discharge, and separately on the amounts used for flooding.

30. Loading Equipment

For all industries, except crude petroleum and natural gas extraction, data were requested on the number and type of mechanical-power loading and excavating machines used. Such information had been obtained for all industries only once before, in the 1939 minerals census.

Operators were requested to show the number of machines in use or available for use at the end of 1954, classified by kind of power used and, for some types, by dipper or bucket capacity, by horsepower rating of scraper hoists, or by working height required. Operators were instructed to include emergency or stand-by equipment and equipment temporarily idle because in need of repairs, excluding only junk.

The inquiry was adapted in the various report forms to the types of equipment commonly used by each group of industries. For the coal mining industries, data were obtained also on the tonnage of coal loaded by each type of underground equipment.

31. Output Per Man-hour

Statistics on output per man-hour are shown for most of the mineral industries, exclusive of the crude petroleum and natural gas extraction industries, as Table 8 of the industry reports. For measuring output per man-hour, producing establishments were classified according to class intervals of output

per man-hour, with output usually measured in physical units, such as tons of coal, representing the principal product of the industry.

Where feasible, the distribution by output per man-hour was shown separately for major types of operation since it differs significantly for open-pits as compared with underground mines, and for a mine only, a mine and plant, and a plant only. The output per man-hour distributions are also sometimes shown by geographic divisions and States.

Meaningful ratios of output per man-hour could not be computed when a significant portion of the production resulted from the work of proprietors or contractors, for whom man-hour figures are excluded, or where a significant portion of the man-hours of production workers was spent in activity other than mineral production. Such operations were included as "unclassified."

32. Ratio of Wages and Salaries to Value Added in Mining

General statistics are shown in Table 9 of each industry report for establishments classified on the basis of the ratio of wages and salaries to value added in mining. In comparing labor costs with the other factors that contribute to value added it should be recognized, however, that value added as here computed includes many expenses for which no separate data were obtained in the 1954 minerals census, such as taxes, royalties, and interest paid; and nonpayroll benefits to employees.

33. Imputation of Data

Short forms were used to obtain information for about 1,700 small establishments in three areas; about 1,400 for crude petroleum and natural gas, 150 for uranium-radium-vanadium ores, and 165 for sand and gravel. In these forms less detail was obtained on selected items, such as cost of supplies, fuels, electric energy, horsepower of power equipment, and on the status of wells and drilling costs for oil and gas operations. Certain items were omitted entirely, such as water use.

To obtain industry totals, estimates were prepared for detail omitted for such establishments on the basis of other information reported on the short forms and the data reported on long forms for similar operations. The computed figures did not significantly effect the totals tabulated since in the case of crude petroleum and natural gas the establishments reported on short forms accounted for only about 0.5 percent of the total value of shipments of these industries; for sand and gravel, about 0.3 percent of value of shipments; and for uranium-radium-vanadium ores, for less than 10 percent of employment and principal expenses.

34. Confidentiality of Data for Individual Companies

The Bureau of the Census is prohibited by law from publishing any statistics that disclose information reported by individual companies. In the 1954 Census, preference was given to geographic regions and divisions over individual States in applying disclosure rules; similarly, States took precedence over counties. In tables showing industry detail, major industry group (2-digit) totals were given preference over industry group (3-digit) totals which, in turn, had precedence over individual (4-digit) industries.

Such order-of-precedence was used because (1) it was considered preferable to show regional data for an industry, even at the cost of withholding data for another (usually the least important) State in a region, rather than to show all publishable data for the individual States and group the disclosure States throughout the United States in an "all other" category as was frequently done in the 1939 and earlier censuses; and (2) by giving preference to industry group statistics over individual industries within each State, the extent to which individual States can be compared within the SIC industry classification framework is greatly increased.

In general, for each producing State not shown separately in Table 3 of the Industry Volume, a footnote gives the number of establishments. Only the number of establishments is shown in a footnote, in most cases, where the value of shipments and principal expenses for a State amounted to less than \$100,000.

In the Area Volume, figures are not shown for a county or for an industry within a State if the publication of such statistics would disclose information for individual companies. In table 4 of that Volume, however, the number of establishments is shown for every county. Moreover, for all mining operations in each State, Table 5 shows the distribution by employment size of operations in each industry.

For industries with few establishments or considerable geographic concentration, it has frequently been necessary to use geographic regions broader than the traditional nine census divisions, in order to show all establishments by some geographic grouping. For this purpose the following combinations of Census divisions have been used:

NORTHEAST	SOUTH
New England	South Atlantic
Middle Atlantic	East South Central
	West South Central
NORTH CENTRAL	WEST
East North Central	Mountain
West North Central	Pacific

35. Abbreviations

The following abbreviations and symbols occur frequently in tables and footnotes:

...	Zero
xxx	Not applicable
NA	Not available
n.e.c.	Not elsewhere classified
kwh	Kilowatt-hours
D	Withheld to avoid approximately disclosing figures for individual companies
S.I.C.	Standard Industrial Classification

Other abbreviations, such as lb., gal., and bbl., are used in the customary sense. Where the term "tons" only is used, it refers to short tons of 2,000 pounds; where the figures are expressed in tons of 2,240 pounds, the unit of measure is specified as "long tons."

GENERAL SUMMARY

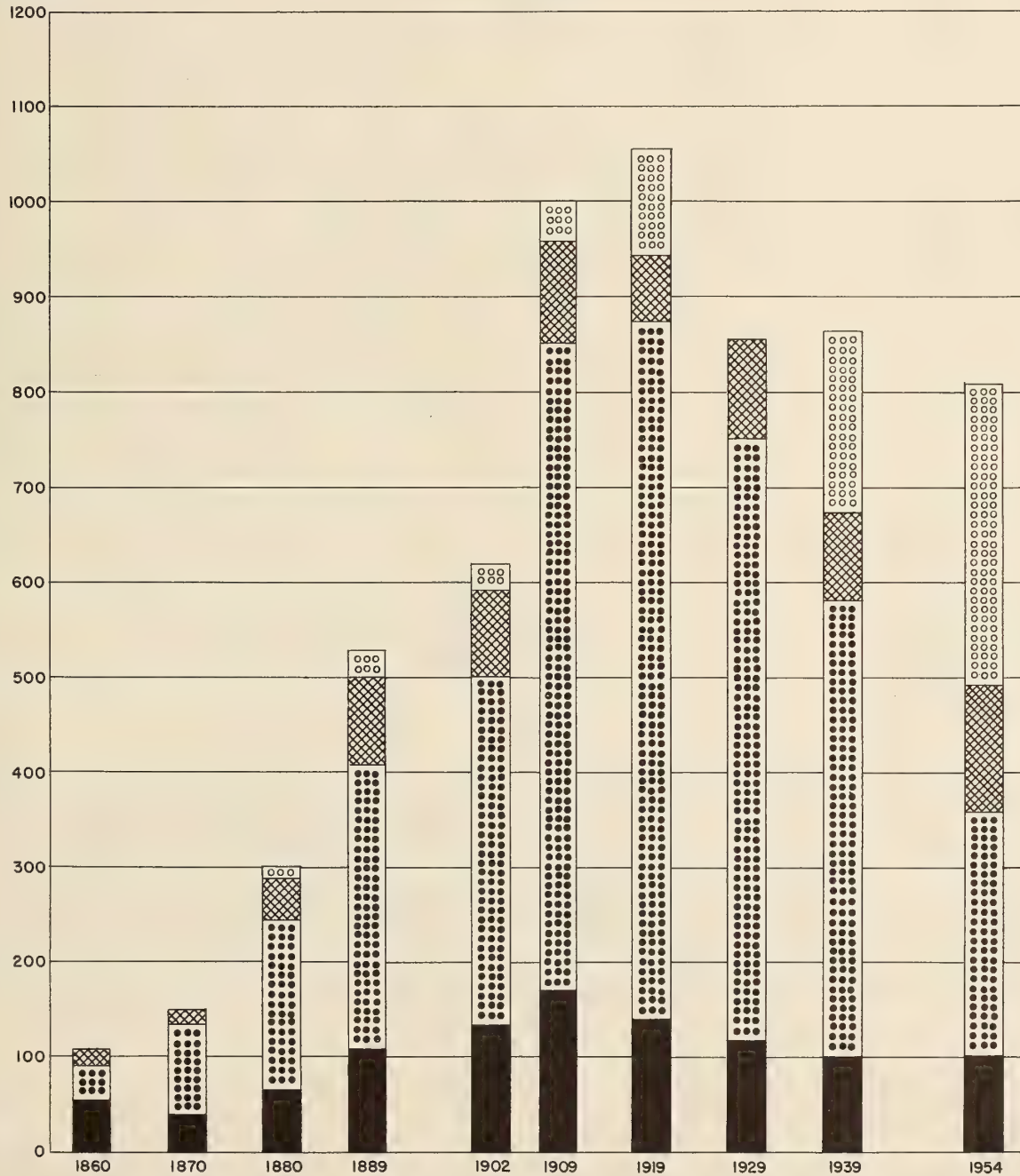
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MINING EMPLOYMENT IN THE UNITED STATES: 1860-1954



* Not available for 1929

THOUSANDS
OF
EMPLOYEES



BUREAU OF THE CENSUS

Table 1.--COMPARATIVE STATISTICS FOR MINERAL OPERATIONS IN THE UNITED STATES: 1954, 1939, 1929, 1919, 1909, 1902, 1889, AND 1880

(For explanation of line captions and for statement on the minimum size of establishments included for each year, see INTRODUCTION. For all years prior to 1939, excludes common clay and shale and contract service operations)

Item	Comparative statistics for all operations							Comparative statistics excluding the crude petroleum and natural gas extraction industries		
	1954	1939 ¹	1919 ²	1909 ²	1902 ³	1889	1880	1954	1939	1929
Number of operating companies.....	32,932	20,658	(NA)	423,664	450,412	(NA)	(NA)	17,848	11,310	(NA)
Number of establishments.....	38,663	(NA)	21,997	25,017	(NA)	(NA)	(NA)	21,078	(NA)	10,996
Number of mines and quarries.....	20,736	13,557	14,417	27,240	20,352	21,807	7,395	20,736	13,557	12,506
Number of oil and gas wells producing at end of year.....	493,611	347,645	257,673	166,320	123,149	37,410	15,009	xxx	xxx	xxx
Number of preparation plants.....	8,814	5,450	1,503	(NA)	(NA)	(NA)	(NA)	8,232	4,716	(NA)
Value of shipments ⁴.....\$1,000..	15,147,297	3,413,954	3,158,464	1,238,410	772,558	426,311	251,967	5,805,758	1,754,123	2,392,831
Value added in mining.....do....	11,740,054	2,765,396	2,387,956	976,928	556,964	334,040	216,790	4,066,360	1,429,122	1,955,804
Number of persons engaged, total.....	846,144	872,429	1,084,796	1,060,938	621,846	542,584	295,991	510,584	678,549	870,448
Production and development workers.....	666,621	774,130	987,184	980,772	581,985	542,584	295,991	431,138	625,134	812,220
All other employees.....	139,347	82,259	75,457	46,475	39,861	(NA)	(NA)	59,095	45,105	53,331
Proprietors and firm members.....	40,176	16,040	22,155	33,691	(NA)	(NA)	(NA)	20,352	8,310	4,897
Performing manual labor.....	20,958	7,068	5,272	9,937	(NA)	(NA)	(NA)	13,959	5,213	(NA)
Man-hours worked by production and development workers.....1,000..	1,288,461	1,287,852	(NA)	(NA)	(NA)	(NA)	(NA)	796,743	1,022,824	(NA)
Principal expenses designated below, total.....\$1,000..	8,385,623	1,823,329	2,226,189	947,610	632,389	319,399	129,949	3,892,224	1,181,390	1,675,945
Wages of production and development workers.....do....	2,639,378	970,546	1,304,409	599,706	376,218	227,129	94,772	1,662,783	750,111	1,099,895
Salaries of all other employees.....do....	817,601	204,225	151,272	55,878	40,577	(NA)	(NA)	331,753	106,278	139,023
Minerals received for preparation.....do....	710,321	(NA)	35,905	29,318	(NA)	(NA)	(NA)	537,406	(NA)	(NA)
Supplies.....do....	2,023,377	307,980	528,854	184,289	(NA)	(NA)	(NA)	855,022	220,789	298,198
Fuel ⁵.....do....	206,491	60,965	94,849	46,503	192,262	85,551	31,447	109,681	34,718	49,146
Purchased electric energy.....do....	161,083	69,245	28,661	(NA)	(NA)	(NA)	(NA)	126,066	62,144	71,769
Contract work.....do....	1,827,372	210,368	82,239	30,690	23,332	6,720	3,730	269,513	7,350	17,914
Purchased machinery installed.....do....	1,214,881	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	351,676	(NA)	86,733
Capital expenditures, total.....do....	2,725,665	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	499,349	(NA)	(NA)
Development and exploration of mineral property.....do....	1,309,076	(NA)	334,015	(NA)	(NA)	(NA)	(NA)	79,137	(NA)	89,646
Preparation plant construction.....do....	192,664	27,435	(NA)	(NA)	(NA)	(NA)	(NA)	136,870	16,217	(NA)
Other construction.....do....	121,241	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	18,213	(NA)	(NA)
New machinery and equipment.....do....	992,399	241,135	(NA)	(NA)	(NA)	(NA)	(NA)	224,649	52,666	(NA)
Used plant and equipment.....do....	110,285	21,962	(NA)	(NA)	(NA)	(NA)	(NA)	40,499	9,451	(NA)
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....1,000..	40,879	14,160	6,786	4,700	2,753	(NA)	(NA)	20,778	9,059	7,584
Per production worker.....do....	61	18	7	5	5	(NA)	(NA)	48	14	9
Prime movers.....1,000..	30,620	8,149	5,147	4,484	2,727	(NA)	(NA)	11,816	3,512	2,780
Electric motors driven by purchased energy.....do....	10,259	6,011	1,639	216	26	(NA)	(NA)	8,962	5,547	4,804
Horsepower rating of electric motors driven by energy generated at establishment.....do....	1,582	1,638	1,260	508	3113	(NA)	(NA)	1,182	1,520	1,357
Energy used.....million kwh equivalent..	373,126	224,898	(NA)	(NA)	(NA)	(NA)	(NA)	88,030	77,131	133,790
Coal ⁶.....1,000 short tons..	2,842	7,186	26,081	(NA)	(NA)	(NA)	(NA)	2,835	7,160	14,675
Fuel oils ⁶.....1,000 barrels..	16,269	6,115	9,747	(NA)	(NA)	(NA)	(NA)	11,674	3,770	4,047
Gas ⁶.....million cu.ft..	931,705	489,052	103,432	(NA)	(NA)	(NA)	(NA)	89,280	26,720	25,536
Electric energy purchased.....million kwh..	13,250	6,329	(NA)	(NA)	(NA)	(NA)	(NA)	10,502	5,677	5,382
Electric energy generated and used.....do....	3,604	2,070	(NA)	(NA)	(NA)	(NA)	(NA)	2,290	1,884	2,081

NA Not available.

xxx Not applicable.

¹Except for value of shipments and value added, excludes data for dimension stone dressing plants operated in conjunction with quarries. The value added in dressing stone at such operations was \$7,913,000; this value has been included in the value of shipments and value added in mining.²Excludes data for sand and gravel operations. There were 1,563 such mines in 1939 with products valued at \$79,402,000.³Includes data for lime plants producing lime valued at \$9,336,000.⁴Represents the sum of the number of operating companies in individual industries or available groups of industries. Probably includes some duplication due to the same company operating in more than one industry.⁵For crushed stone, clay, and gypsum operations classified in the manufacturing industries includes the estimated value of minerals produced and used in the same establishment. For 1954, 1919, and 1909, represents gross value of shipments (or production for 1919 and 1909) and contains some duplication due to the transfer of crude minerals from one establishment to another for preparation. The approximate magnitude of this duplication is indicated by the figures shown for cost of "Minerals received for preparation." For all other years the figures represent net production and exclude this duplication.⁶Figures for average employment were reduced to a 300-day basis for establishments which operated for a shorter period.⁷For 1954, represents purchased fuel only. For 1939, includes the value of fuels produced and used at the same establishment for power or heat.⁸Includes data for fuels produced and used at the same establishment for power or heat.

Table 2.—SELECTED STATISTICS FOR THE MINERAL INDUSTRIES

(For explanation of column

Code	Industry group and industry	Number of operating companies	Number of establishments	Number of mines, quarries, and wells	Number of preparation plants	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of persons engaged					Man-hours worked by production and development workers (1,000)
								Total	Production and development workers	All other employees	Proprietors and firm members		
											Total	Performing manual labor	
	All mineral industries.....	31,994	37,446	513,128	8,610	14,906,583	11,546,418	825,716	647,141	138,567	40,008	20,838	1,248,898
	MAJOR INDUSTRY GROUPS												
10	Metal mining.....	2,961	3,496	3,356	993	31,506,238	31,075,519	103,775	81,896	18,354	3,525	2,721	168,346
11	Anthracite mining.....	1,296	1,436	1,263	196	408,431	196,835	39,800	33,026	4,436	2,338	2,065	48,266
12	Bituminous coal and lignite mining.....	6,104	6,855	6,844	628	2,068,183	1,418,384	226,593	199,655	19,178	7,760	5,485	325,769
13	Crude petroleum and natural gas extraction.....	15,099	17,585	493,611	582	9,341,539	47,673,694	335,559	235,483	80,252	19,824	6,999	491,718
14	Nonmetallic minerals (except fuels) mining.....	6,623	8,074	8,054	6,211	1,582,192	1,181,986	119,989	97,081	16,347	6,561	3,568	214,799
	INDUSTRIES												
10	Metal mining.....	2,961	3,496	3,356	993	31,506,238	31,075,519	103,775	81,896	18,354	3,525	2,721	168,346
1011	Iron ores.....	94	225	298	123	547,218	435,668	34,243	28,216	5,954	73	46	53,288
1021	Copper ores.....	179	210	201	48	508,729	334,876	27,997	21,544	6,269	184	145	46,676
103	Lead and zinc ores.....	411	520	491	141	175,947	107,409	17,016	13,592	2,974	450	343	27,554
1032	Lead ores.....	112	113	110	18	4,581	3,415	702	475	103	124	102	903
1033	Zinc ores.....	16	28	23	15	11,661	7,733	1,934	1,308	614	12	7	2,383
1034	Lead-zinc ores.....	293	379	358	108	159,705	96,261	14,380	11,809	2,257	314	234	24,268
104	Gold and silver ores.....	514	535	528	275	46,581	35,354	5,370	4,200	631	539	434	9,363
1042	Lode gold.....	286	298	291	135	28,517	21,884	3,300	2,634	386	280	223	5,894
1043	Placer gold.....	131	136	136	116	5,916	3,614	729	501	55	173	145	1,255
1044	Silver ores.....	98	101	101	24	12,148	9,856	1,341	1,065	190	86	66	2,214
1051	Bauxite.....	12	25	20	9	16,819	12,827	854	661	191	2	...	1,288
106	Ferro-alloy ores, except vanadium.....	972	1,086	1,042	297	153,671	107,399	9,493	6,838	1,240	1,415	1,214	15,122
1062	Manganese ores.....	319	367	360	63	32,398	18,118	3,062	2,266	338	458	386	4,293
1064	Tungsten ores.....	500	549	524	171	60,737	40,744	3,701	2,635	352	714	634	6,327
1063	Molybdenum ores.....	155	170	158	63	60,536	48,537	2,730	1,937	550	243	194	4,502
1069	Ferro-alloy ores, n.e.c.....	114	114	xxx	xxx	38,679	26,703	3,141	2,863	196	82	55	6,519
1081	Metal mining contract services.....	114	114	xxx	xxx	38,679	26,703	3,141	2,863	196	82	55	6,519
109	Miscellaneous metal ores.....	701	781	776	100	318,594	315,283	5,661	3,982	899	780	484	8,536
1092	Mercury ores.....	81	87	87	75	4,519	3,355	372	372	81	125	110	841
1093	Titanium ores.....	7	10	8	8	12,750	11,134	844	568	275	1	1	1,261
1094	Uranium-radium-vanadium ores.....	572	637	636	8	(NA)	(NA)	4,081	2,944	523	614	339	6,227
1099	Metallic ores, n.e.c.....	44	47	45	9	1,325	794	158	98	20	40	34	207
11	Anthracite mining.....	1,296	1,436	1,263	196	408,431	196,835	39,800	33,026	4,436	2,338	2,065	48,266
1111	Anthracite.....	1,160	1,291	1,263	196	365,536	167,090	34,970	28,823	3,946	2,201	1,985	42,061
1112	Anthracite stripping contract services.....	131	132	xxx	xxx	42,048	29,079	4,682	4,074	482	126	72	6,038
1113	Anthracite contract services, except stripping.....	13	13	xxx	xxx	847	666	148	129	8	11	8	167
12	Bituminous coal and lignite mining.....	6,104	6,855	6,844	628	2,068,183	1,418,384	226,593	199,655	19,178	7,760	5,485	325,769
1211	Bituminous coal.....	5,913	6,643	6,784	628	2,040,200	1,396,774	224,352	197,819	18,994	7,539	5,324	322,410
1212	Lignite.....	56	60	60	...	10,387	9,093	631	505	69	57	43	901
1213	Bituminous coal and lignite contract services.....	152	152	xxx	xxx	17,596	12,517	1,610	1,331	115	164	118	2,458
13	Crude petroleum and natural gas extraction.....	15,099	17,585	493,611	582	9,341,539	47,673,694	335,559	235,483	80,252	19,824	6,999	491,718
131	Crude petroleum and natural gas.....	9,720	11,508	485,907	xxx	7,070,097	6,129,213	185,822	109,792	62,714	13,316	3,886	216,581
1312	Crude petroleum.....	8,565	10,101	432,226	xxx	6,642,452	5,741,256	173,032	101,542	59,740	11,750	3,517	201,086
1313	Natural gas.....	1,290	1,407	53,681	xxx	427,645	387,957	12,790	8,250	2,974	1,566	369	15,495
131	Natural gas liquids.....	181	562	xxx	582	640,422	(4)	17,412	13,560	3,780	72	13	27,862
1314	Natural gasoline.....	167	521	xxx	540	507,655	(4)	15,114	11,740	3,305	69	13	24,119
1315	Cycle condensate.....	30	41	xxx	42	132,767	(4)	2,298	1,820	475	3	...	3,743
133	Oil and gas field contract services.....	5,463	5,515	7,704	xxx	1,631,020	1,118,544	132,325	112,131	13,758	6,436	3,100	247,275
1331	Drilling oil and gas wells.....	2,846	2,869	7,372	xxx	972,745	623,967	71,375	62,145	5,831	3,399	1,684	133,216
1332	Building, repairing, and dismantling rigs and derricks	120	120	...	xxx	11,657	9,552	1,763	1,539	93	131	68	1,720
1339	Oil and gas field contract services, n.e.c.....	2,502	2,526	332	xxx	646,618	485,025	59,187	48,447	7,834	2,906	1,348	112,339
14	Nonmetallic minerals (except fuels) mining.....		8,074	8,054	6,211	1,582,192	1,181,986	119,989	97,081	16,347	6,561	3,568	214,799
141	Dimension stone.....	322	351	352	...	18,945	15,155	3,523	3,068	156	299	133	5,893
1412	Dimension limestone.....	63	65	65	...	3,754	2,942	572	472	28	72	41	872
1413	Dimension granite.....	79	86	86	...	5,738	4,590	1,022	917	50	55	25	1,769
1415	Dimension marble.....	18	30	31	...	3,491	2,893	645	612	25	8	3	1,245
1417	Dimension sandstone.....	107	115	115	...	5,292	4,178	1,070	925	48	97	43	1,752
1416	Dimension trap rock.....	55	55	55	...	670	552	214	142	5	67	21	255
1419	Dimension stone, n.e.c.....	55	55	55	...	670	552	214	142	5	67	21	255
142	Crushed and broken stone.....	1,174	1,901	1,882	1,761	465,254	337,611	38,665	33,124	4,280	1,261	595	75,559
1422	Crushed and broken limestone.....	75	1,447	1,443	1,362	328,757	239,604	29,257	24,925	3,315	1,017	490	56,335
1423	Crushed and broken granite.....	6	101	99	88	30,875	22,201	2,605	2,344	206	55	24	5,607
1424	Crushed and broken slate.....	14	11	11	11	8,162	5,055	535	464	69	2	...	1,198
1425	Crushed and broken marble.....	6	18	17	16	5,142	3,661	433	379	52	2	2	796
1426	Crushed and broken trap rock.....	100	142	139	131	45,471	34,127	3,132	2,680	377	75	29	6,559
1427	Crushed and broken sandstone.....	60	87	86	74	31,190	22,913	1,757	1,529	182	46	23	3,283
1429	Crushed and broken stone, n.e.c.....	83	95	87	79	15,657	10,050	946	803	79	64	27	1,681
144	Sand and gravel.....	3,340	3,931	3,949	3,309	466,015	356,729	39,989	30,533	5,933	3,523	1,913	70,103
	Common sand and gravel.....	3,196	3,756	3,766	3,156	435,662	334,046	37,498	28,423	5,667	3,408	1,852	65,600
	Glass sand.....	40	44	44	38	18,591	13,701	1,321	1,144	151	26	11	2,505
	Foundry sand.....	105	131	139	115	11,762	8,982	1,170	966	115	89	50	1,998

See footnotes at end of table.

IN THE UNITED STATES, BY INDUSTRY GROUP AND INDUSTRY: 1954
 captions, see INTRODUCTION)

Principal expenses designated below (\$1,000)								Capital expenditures (\$1,000)						Horsepower rating of power equipment			Water intake ² (million gallons)	Code
Total	Wages and salaries		Minerals received for prepara- tion	Supplies ¹	Purchased fuel	Purchased electric energy	Contract work	Purchased machinery installed (\$1,000)	Total	Develop- ment and explora- tion of mineral property	Prepara- tion plant and other con- struc- tion	New ma- chinery and equip- ment	Used plant and equip- ment	Aggregate horse- power (1,000)	Horse- power per produc- tion worker			
	Produc- tion and develop- ment workers	All other employees																
8,267,152	2,572,297	813,425	708,809	1,980,576	205,688	159,619	1,826,738	1,213,108	2,723,756	1,308,967	313,598	991,186	110,005	40,711	63	721,982		
1,038,537	353,303	109,722	³ 168,922	229,913	26,936	32,662	117,079	86,891	221,067	64,569	84,313	65,655	6,530	5,113	62	137,781	10	
348,749	113,932	21,997	119,848	29,027	3,932	8,787	51,226	9,270	10,494	1,438	2,241	4,767	2,048	1,506	46	27,214	11	
1,521,275	764,863	109,442	203,953	322,916	17,111	47,802	55,188	121,640	118,811	3,601	34,168	66,206	14,836	6,332	32	29,408	12	
⁴ 4,493,399	976,595	485,848	⁴ 172,921	1,168,349	96,810	35,017	1,557,859	863,205	2,226,316	1,229,958	158,822	767,750	69,786	20,101	85	158,487	13	
865,192	363,604	86,416	43,165	230,371	60,899	35,351	45,386	132,102	147,068	9,401	34,054	86,808	16,805	7,659	79	369,092	14	
1,038,537	353,303	109,722	³ 168,922	229,913	26,936	32,662	117,079	86,891	221,067	64,569	84,313	65,655	6,530	5,113	62	137,781	10	
316,443	119,688	37,221	12,837	75,866	9,549	13,767	47,515	36,994	84,978	23,515	32,790	27,955	718	1,795	64	26,855	1011	
368,707	98,491	37,574	100,693	72,822	8,576	6,278	43,873	23,821	82,210	23,750	35,265	21,955	1,240	1,545	72	59,112	1021	
145,479	53,676	17,687	35,116	24,673	1,409	6,838	6,080	5,942	11,520	6,509	2,054	2,509	448	749	55	22,149	103	
3,498	1,726	489	1	628	55	267	332	458	575	336	123	83	33	29	61	247	1032	
13,385	4,406	3,877	1,203	1,855	274	438	1,332	1,165	2,339	932	762	614	31	64	49	1,492	1033	
128,596	47,544	13,321	33,912	22,190	1,080	6,133	4,416	4,319	8,606	5,241	1,169	1,812	384	656	56	20,410	1034	
33,934	17,406	3,212	1,279	8,738	922	1,652	725	1,658	3,747	1,804	780	711	452	212	50	17,320	104	
20,169	10,406	1,863	1,274	5,017	569	720	320	910	2,177	1,037	564	386	190	112	42	4,277	1042	
4,815	1,997	314	xxx	1,554	248	661	41	302	504	180	52	121	151	64	128	10,752	1043	
8,950	5,003	1,035	5	2,167	105	271	364	446	1,066	587	164	204	111	36	34	2,291	1044	
7,527	2,529	1,052	1,181	789	239	134	1,603	356	310	24	11	271	4	49	74	179	1051	
91,851	31,330	7,205	16,734	23,235	2,011	2,519	8,817	8,475	15,519	3,185	5,309	5,577	1,448	368	54	7,661	106	
24,532	7,643	1,649	5,382	5,087	721	477	3,573	2,304	3,264	607	708	1,366	583	106	47	2,834	1062	
37,515	13,148	1,610	10,891	8,295	933	753	1,885	3,562	6,326	2,168	1,267	2,224	667	156	59	3,380	1064	
29,804	10,539	3,946	461	9,853	357	1,289	3,359	2,609	5,929	410	3,334	1,987	198	107	55	1,447	¹⁰⁶³ 1069	
27,595	13,933	1,335	xxx	10,412	1,273	133	509	2,049	2,400	xxx	523	1,522	355	152	53	99	1081	
47,401	16,250	4,436	³ 1,082	13,378	2,957	1,341	7,957	7,596	20,383	5,782	7,581	5,155	1,865	242	61	4,406	109	
3,425	1,607	365	(⁵)	⁵ 1,160	204	61	28	226	515	167	176	116	56	12	31	12	1092	
8,027	2,397	1,302	(⁵)	⁵ 2,801	449	743	335	1,286	3,998	...	2,904	1,092	2	46	81	2,793	1093	
34,642	11,908	2,660	(NA)	9,844	2,263	505	7,462	5,336	14,793	5,494	4,289	3,842	1,168	165	56	1,601	1094	
1,307	338	109	(⁵)	⁵ 655	41	32	132	748	1,077	121	212	105	639	19	(⁶)	...	1099	
348,749	113,932	21,997	119,848	29,027	3,932	8,787	51,226	9,270	10,494	1,438	2,241	4,767	2,048	1,506	46	27,214	11	
318,733	98,678	19,392	119,848	20,224	2,038	8,397	50,156	5,667	7,884	1,438	2,148	3,367	931	1,072	37	27,206	1111	
29,357	14,809	2,571	xxx	8,651	1,868	390	1,068	3,529	2,537	xxx	93	1,371	1,073	433	106	8	1112	
659	445	34	xxx	152	26	...	2	74	73	xxx	...	29	44	1	11	...	1113	
1,521,275	764,863	109,442	203,953	322,916	17,111	47,802	55,188	121,640	118,811	3,601	34,168	66,206	14,836	6,332	32	29,408	12	
1,506,355	757,175	108,474	203,953	319,298	15,712	47,512	54,231	118,481	115,761	3,586	33,948	63,845	14,382	6,093	31	29,325	1211	
3,914	2,177	411	...	627	239	254	206	607	639	15	134	479	11	75	148	16	1212	
11,006	5,511	557	xxx	2,991	1,160	36	751	2,552	2,411	xxx	86	1,882	443	164	123	67	1213	
⁴ 4,493,399	976,595	485,848	⁴ 172,921	1,168,349	96,810	35,017	1,557,859	863,205	2,226,316	1,229,958	158,822	767,750	69,786	20,101	85	158,487	13	
3,054,030	459,955	375,785	xxx	692,682	36,177	30,624	1,458,807	621,048	1,898,454	1,206,214	98,229	558,950	35,061	9,123	83	82,408	131	
2,874,614	430,497	360,449	xxx	646,428	34,641	30,104	1,372,495	588,211	1,770,683	1,129,878	86,856	526,029	27,920	8,636	85	81,984	1312	
179,416	29,458	15,336	xxx	46,254	1,536	520	86,312	32,837	127,771	76,336	11,373	32,921	7,141	487	59	424	1313	
⁴ 228,384	63,983	21,074	⁷ 57,556	43,891	1,964	3,190	36,726	65,752	109,959	xxx	55,794	51,227	2,938	2,902	214	67,262	131	
⁴ 208,006	55,114	18,245	⁷ 57,556	37,534	1,929	2,996	34,632	60,913	102,277	xxx	53,188	46,160	2,929	2,536	216	52,614	1314	
20,378	8,869	2,829	(⁴)	6,357	35	194	2,094	4,839	7,682	xxx	2,606	5,067	9	366	201	14,648	1315	
1,095,620	452,657	88,989	xxx	431,776	58,669	1,203	62,326	176,405	217,903	23,744	4,799	157,573	31,787	8,076	72	8,817	133	
686,173	264,797	39,515	xxx	298,789	36,704	320	46,048	120,385	153,468	23,416	1,939	99,722	28,391	4,265	69	8,313	1331	
7,416	4,769	452	xxx	1,689	308	3	195	347	437	...	56	308	73	39	25	21	1332	
402,031	183,091	49,022	xxx	131,298	21,657	880	16,083	55,673	63,998	328	2,804	57,543	3,323	3,772	78	483	1339	
865,192	363,604	86,416	43,165	230,371	60,899	35,351	45,386	132,102	147,068	9,401	34,054	86,808	16,805	7,659	79	369,092	14	
12,471	7,938	687	...	2,482	401	389	574	891	947	69	86	581	211	94	31	133	141	
2,335	1,429	127	...	586	87	54	52	158	125	...	...	89	36	18	37	16	1412
3,806	2,404	235	...	693	96	229	149	226	245	30	5	157	53	30	33	95	1413	
2,244	1,505	135	...	511	13	80	...	55	61	5	14	39	3	13	21	16	1415	
3,629	2,273	183	...	631	161	22	359	413	472	23	64	285	100	27	30	6	1417	
457	327	7	...	61	44	4	14	39	44	111								

Table 2.—SELECTED STATISTICS FOR THE MINERAL INDUSTRIES

(For explanation of column

(For explanation of symbols)													
Code	Industry group and industry	Number of operating companies	Number of establishments	Number of mines, quarries, and wells	Number of preparation plants	Value of shipments	Value added in mining	Number of persons engaged					Man-hours worked by production and development workers
								Total	Production and development workers	All other employees	Proprietors and firm members		
											Total	Performing manual labor	
						(\$1,000)	(\$1,000)						(1,000)
	INDUSTRIES—Continued												
14	Nonmetallic minerals (except fuels) mining—Con.												
145	Clay, ceramic, and refractory minerals.....	475	632	673	247	103,768	78,449	8,633	7,463	769	401	213	15,377
1452	Bentonite.....	29	43	43	28	21,830	16,350	657	578	56	23	7	1,340
1453	Fire clay.....	180	248	252	61	22,206	17,468	2,154	1,802	185	167	74	3,123
1454	Fuller's earth.....	15	16	19	13	6,012	4,179	572	510	54	8	4	1,109
1455	Kaolin and ball clay.....	40	54	61	38	31,892	25,249	3,167	2,820	328	19	7	6,159
1456	Feldspar.....	58	84	110	22	6,669	4,048	700	579	37	84	70	1,235
1457	Magnesite and brucite.....	4	4	4	1	1,655	1,372	133	121	11	1	1	237
1459	Clay, ceramic, and refractory minerals, n.e.c.....	169	183	184	84	13,504	9,783	1,250	1,053	98	99	50	2,174
146	Natural abrasives, except sand.....	32	32	32	24	4,474	3,681	310	251	34	25	12	524
1462	Abrasive stones, natural.....	11	11	11	6	326	236	50	42	...	8	3	78
1469	Natural abrasives, n.e.c.....	21	21	21	18	4,148	3,445	260	209	34	17	9	446
147	Chemical and fertilizer mineral mining.....	243	317	298	185	457,586	340,520	21,821	17,295	4,314	212	129	36,418
1472	Barite.....	36	44	45	35	18,269	14,051	1,160	1,036	89	35	18	2,403
1473	Fluorspar.....	94	104	105	33	15,461	9,914	1,374	997	263	114	82	2,001
1474	Potash, soda, and borate minerals.....	15	20	20	16	107,757	82,213	6,323	4,738	1,584	1	...	9,381
1475	Phosphate rock.....	53	75	73	54	117,976	62,089	5,484	4,579	861	44	21	10,119
1476	Rock salt.....	11	15	15	13	35,658	30,013	1,928	1,659	266	3	1	3,861
1477	Sulfur.....	12	20	16	5	140,685	124,166	4,095	3,077	1,018	...	...	6,229
1479	Chemical and fertilizer mineral mining, n.e.c.....	36	39	24	29	21,780	18,074	1,457	1,209	233	15	7	2,424
1481	Nonmetallic minerals (except fuels) contract services....	62	62	xxx	xxx	6,571	4,884	706	614	25	67	26	1,258
149	Miscellaneous nonmetallic minerals (except fuels).....	757	848	868	685	59,579	44,957	6,342	4,733	836	773	547	9,667
1492	Gypsum.....	34	37	34	22	6,631	5,352	470	399	50	21	7	926
1493	Mica.....	446	498	510	444	4,126	3,284	1,259	668	42	549	432	1,196
1494	Native asphalt and bitumens.....	9	12	12	8	6,424	4,857	563	451	100	12	3	987
1495	Pumice and pumicite.....	73	75	75	47	3,393	2,741	326	223	44	59	35	440
1496	Talc, soapstone, and pyrophyllite.....	54	68	75	39	11,819	9,486	1,501	1,297	174	30	14	2,778
1498	Peat.....	86	88	87	68	2,326	1,800	422	321	32	69	42	637
1497	Vermiculite.....												
1499	Miscellaneous nonmetallic minerals, n.e.c.....	63	70	75	57	24,860	17,437	1,801	1,374	394	33	14	2,703

D Withheld to avoid approximately disclosing figures for individual companies.

NA Not available.

xxx Not applicable.

¹Includes products purchased for resale without further processing.²Includes mine water used.³Excludes figures for the Uranium-radium-vanadium ores industry.⁴No data were obtained on the value of gas received for processing at natural gas liquids plants or on the value of residue gas sold or transferred. However, the estimated value (prior to processing) of natural gas liquids contained in such gas is included in the industry group totals. Such estimated values are not included in the costs shown for the Natural gas liquids industries and no value added is shown for these industries.⁵Figures for minerals received for preparation are included with those for supplies.⁶Not shown since the number of proprietors and firm members performing manual labor exceeds one-third of the number of production and development workers.⁷Represents only natural gas liquids transferred for further processing.

IN THE UNITED STATES, BY INDUSTRY GROUP AND INDUSTRY: 1954—Continued
 captions, see INTRODUCTION)

Principal expenses designated below (\$1,000)									Capital expenditures (\$1,000)					Horsepower rating of power equipment			
Total	Wages and salaries		Minerals received for prepara- tion	Supplies ¹	Purchased fuel	Purchased electric energy	Contract work	Purchased machinery installed (\$1,000)	Total	Develop- ment and explora- tion of mineral property	Prepara- tion plant and other con- struc- tion	New ma- chinery and equip- ment	Used plant and equip- ment	Aggre- gate horse- power (1,000)	Horse- power per produc- tion worker	Water intake ² (million gallons)	Code
	Production and develop- ment workers	All other employees															
54,377	22,490	4,014	1,305	12,847	4,651	2,415	6,655	6,508	9,062	287	2,591	5,709	475	361	48	6,753	145
7,653	1,920	215	(³)	⁵ 2,916	468	305	1,829	604	642	15	81	392	154	36	63	12	1452
11,371	5,670	928	160	1,983	639	305	1,686	1,292	1,327	79	184	925	139	100	56	157	1453
3,563	1,381	363	...	840	538	218	223	539	525	...	84	413	28	23	46	51	1454
18,276	8,115	1,828	14	4,576	1,524	857	1,362	2,601	4,291	109	1,449	2,733	...	97	34	3,890	1455
4,457	1,523	199	430	1,400	238	302	365	294	408	36	94	259	19	29	52	1,224	1456
822	469	70	...	212	32	39	...	17	17	...	...	17	...	13	115	1,152	1457
8,235	3,412	411	(⁵)	⁵ 1,621	1,212	389	1,190	1,161	1,852	48	699	970	135	60	57	267	1459
2,229	932	229	32	580	192	76	188	123	398	11	263	103	21	14	57	203	146
222	132	...	(⁵)	⁵ 31	10	...	49	(D)	(D)	...	...	(D)	(D)	1	25	(D)	1462
2,007	800	229	(⁵)	⁵ 581	182	76	139	(D)	(D)	11	263	(D)	(D)	13	64	(D)	1469
228,044	73,324	26,067	38,838	55,156	15,921	9,018	9,720	26,054	37,641	5,152	9,661	22,499	329	928	54	113,421	147
7,854	3,451	423	...	2,251	327	552	850	1,250	1,012	24	78	853	57	68	65	6,047	1472
10,601	3,451	1,415	1,728	2,195	495	513	804	561	749	140	145	429	35	49	49	1,091	1473
59,649	23,028	10,411	(⁵)	⁵ 17,329	5,594	1,641	1,646	8,390	9,056	525	1,599	6,866	66	195	41	10,561	1474
80,598	17,089	4,440	35,393	11,917	3,348	5,507	2,904	8,156	11,338	1,083	2,484	7,662	109	357	78	62,618	1475
14,868	7,117	1,454	...	5,351	335	367	244	1,534	2,186	53	873	1,259	1	47	29	2,968	1476
43,747	14,619	6,567	...	14,055	5,629	44	2,833	2,803	8,845	3,069	3,110	2,635	31	159	52	15,969	1477
10,727	4,569	1,357	(⁵)	⁵ 3,775	193	394	439	3,360	4,455	258	1,372	2,795	30	52	44	14,167	1479
3,993	2,214	113	xxx	1,088	354	11	213	402	381	xxx	19	306	56	38	63	25	1481
36,005	15,241	4,262	558	9,711	1,957	1,617	2,659	5,729	7,609	857	1,674	2,736	2,342	238	50	2,062	149
3,159	1,567	285	(⁵)	⁵ 924	171	140	72	2,395	2,423	13	48	402	1,960	29	71	131	1492
2,570	1,255	87	34	564	151	132	347	476	860	255	188	321	96	17	(⁶)	1,022	1493
3,790	1,443	704	(⁵)	1,251	137	85	170	476	552	114	24	402	12	32	69	38	1494
1,731	748	214	(⁵)	334	119	40	276	298	415	32	98	99	186	26	115	27	1495
7,984	4,141	799	256	1,671	238	467	412	486	1,197	300	453	407	37	36	28	324	1496
1,512	829	111	...	321	174	31	46	159	205	34	43	104	24	24	74	...	1498
15,259	5,258	2,062	265	4,649	967	722	1,336	1,441	1,957	109	820	1,001	27	76	55	520	1499

Table 3.—SELECTED STATISTICS FOR THE MINERAL INDUSTRIES,

(For explanation of column

	Geographic division and State	Number of operating companies	Number of establishments	Number of mines, quarries, and wells	Number of preparation plants	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of persons engaged					Man-hours worked by production and development workers (1,000)
								Total	Production and development workers	All other employees	Proprietors and firm members		
											Total	Per-forming manual labor	
1	United States, total.....	31,994	37,446	513,128	8,610	14,906,583	11,546,418	825,716	647,141	138,567	40,008	20,838	1,248,898
2	New England.....	340	385	386	273	41,325	32,104	4,286	3,456	613	217	122	7,581
3	Maine.....	62	66	65	30	2,175	1,809	356	292	22	42	29	614
4	New Hampshire.....	34	39	39	28	1,980	1,658	292	240	26	26	15	481
5	Vermont.....	36	42	42	27	14,427	10,600	1,352	1,187	142	23	17	2,633
6	Massachusetts.....	111	127	128	103	11,577	8,925	1,275	992	215	68	26	2,142
7	Rhode Island.....	20	20	20	14	1,447	1,109	173	140	23	10	10	274
8	Connecticut.....	83	91	92	71	9,719	8,003	838	605	185	48	25	1,437
9	Middle Atlantic.....	4,740	5,320	87,123	961	1,229,313	767,158	127,629	105,017	15,778	6,834	4,188	177,172
10	New York.....	567	629	17,222	248	128,393	96,838	12,298	7,641	3,876	781	283	16,907
11	New Jersey.....	117	153	149	122	350,855	38,617	4,186	3,479	647	60	33	7,820
12	Pennsylvania.....	4,076	4,538	69,752	591	1,050,065	463,703	111,145	93,897	11,255	5,993	3,872	152,445
13	East North Central.....	4,115	4,636	49,974	1,526	1,094,500	813,435	86,356	69,142	12,269	4,945	2,336	131,846
14	Ohio.....	1,531	1,654	14,570	411	228,046	166,825	23,575	17,508	4,146	1,921	942	33,242
15	Indiana.....	713	776	4,235	274	129,720	85,201	9,889	7,782	1,402	705	339	14,304
16	Illinois.....	1,233	1,345	26,384	397	492,465	375,191	31,639	26,627	3,530	1,482	624	48,697
17	Michigan.....	505	567	4,499	209	194,668	149,074	16,980	13,729	2,702	549	264	28,238
18	Wisconsin.....	270	294	286	235	49,601	37,144	4,273	3,496	489	288	167	7,365
19	West North Central.....	2,976	3,320	40,890	1,181	1,006,491	785,763	54,910	43,170	8,397	3,343	1,523	86,965
20	Minnesota.....	192	292	355	216	343,864	290,205	17,191	13,849	3,146	196	83	26,355
21	Iowa.....	279	329	259	228	31,564	21,513	2,984	2,347	297	340	202	5,288
22	Missouri.....	419	456	529	280	378,171	36,554	8,377	6,697	1,268	412	244	13,461
23	North Dakota.....	137	146	556	29	28,694	17,151	1,864	1,399	399	66	29	2,956
24	South Dakota.....	175	187	177	95	31,314	22,419	3,051	2,497	373	181	129	5,651
25	Nebraska.....	228	249	721	139	36,817	429,222	1,849	1,433	203	213	113	3,253
26	Kansas.....	1,610	1,661	38,293	194	456,067	358,699	19,594	14,948	2,711	1,935	723	30,001
27	South Atlantic.....	3,696	4,227	26,883	1,259	1,118,407	761,393	113,498	98,602	10,397	4,499	2,284	176,135
28	Delaware, Maryland, and District of Columbia.....	175	196	212	73	24,142	17,941	2,210	1,804	227	179	106	4,098
29	Virginia.....	710	755	787	143	137,543	89,095	17,029	14,400	1,719	910	613	25,045
30	West Virginia.....	2,053	2,322	24,936	305	736,026	513,492	77,299	68,340	6,375	2,584	1,037	114,929
31	North Carolina.....	429	513	534	444	39,566	30,678	4,103	3,322	240	541	396	7,420
32	South Carolina.....	48	56	61	41	12,852	10,097	1,460	1,276	146	38	24	2,909
33	Georgia.....	168	192	179	127	43,439	32,724	4,497	3,928	426	143	72	8,783
34	Florida.....	160	193	174	126	124,839	67,366	6,900	5,532	1,264	104	36	12,951
35	East South Central.....	2,810	3,073	21,706	553	706,066	521,131	70,194	60,615	6,013	3,566	2,252	104,304
36	Kentucky.....	1,722	1,816	18,677	205	365,877	272,103	41,255	35,820	3,075	2,360	1,472	59,659
37	Tennessee.....	620	665	677	158	82,815	61,108	10,275	8,839	737	699	504	16,291
38	Alabama.....	326	378	439	153	137,141	93,638	14,718	12,880	1,484	354	219	22,038
39	Mississippi.....	195	214	1,913	37	120,233	49,282	3,946	3,076	717	153	57	6,316
40	West South Central.....	8,149	9,179	227,470	780	6,397,677	5,209,798	233,406	165,208	58,471	9,727	3,904	358,039
41	Arkansas.....	383	410	3,810	69	136,241	107,904	6,311	4,985	925	401	169	9,986
42	Louisiana.....	828	895	17,569	115	1,194,947	984,473	37,832	29,474	7,634	724	278	65,780
43	Oklahoma.....	2,475	2,610	59,120	183	755,206	584,366	43,523	30,294	10,565	2,664	1,095	61,057
44	Texas.....	4,908	5,264	146,971	413	4,311,283	3,533,055	145,740	100,455	39,347	5,938	2,362	221,216
45	Mountain.....	3,867	4,551	24,346	904	1,768,451	1,305,463	88,776	68,713	15,949	4,114	2,611	140,458
46	Montana.....	540	578	4,692	102	147,547	42,867	12,130	8,899	2,669	562	325	17,406
47	Idaho.....	215	249	242	145	351,883	38,558	4,917	4,121	646	150	107	8,622
48	Wyoming.....	445	483	5,980	57	312,959	258,165	10,037	7,460	2,254	323	160	14,579
49	Colorado.....	921	1,020	2,510	180	258,895	204,547	14,570	10,840	2,710	1,020	622	21,045
50	New Mexico.....	644	691	9,432	65	403,274	338,096	14,494	11,545	2,389	560	295	23,599
51	Arizona.....	447	525	499	119	217,936	178,139	13,785	11,014	2,217	554	432	25,169
52	Utah.....	493	555	570	85	273,486	151,662	13,088	10,249	2,387	452	266	19,806
53	Nevada.....	408	450	421	151	102,471	53,429	5,755	4,585	677	493	404	10,232
54	Pacific.....	2,421	2,755	34,350	1,173	1,544,353	1,350,173	46,661	33,218	10,680	2,763	1,618	66,398
55	Washington.....	242	287	275	190	31,404	22,346	3,314	2,515	581	218	139	4,651
56	Oregon.....	264	278	260	213	18,263	12,646	1,732	1,280	156	296	185	2,588
57	California.....	1,938	2,190	33,815	770	1,494,686	1,315,181	41,615	29,423	9,943	2,249	1,294	59,159

¹Includes products purchased for resale without further processing.²Includes mine water used.³Excludes figures for the Uranium-radium-vanadium ores industry.

BY GEOGRAPHIC DIVISIONS AND STATES: 1954

captions, see INTRODUCTION)

Principal expenses designated below (\$1,000)								Capital expenditures (\$1,000)					Horsepower rating of power equipment			Water intake ² (million gallons)
Total	Wages and salaries		Minerals received for preparation	Supplies ¹	Purchased fuel	Purchased electric energy	Contract work	Purchased machinery installed (\$1,000)	Total	Development and exploration of mineral property	Preparation plant and other construction	New machinery and equipment	Used plant and equipment	Horsepower rating of power equipment		
	Production and development workers	All other employees												Aggregate horsepower (1,000)	Horsepower per production worker	
8,267,152	2,572,297	813,425	708,809	1,980,576	205,688	159,619	1,826,738	1,213,108	2,723,756	1,308,967	313,598	991,186	110,005	40,711	63	721,982
25,792	12,434	3,249	135	6,056	1,502	1,250	1,166	3,404	4,292	209	1,033	2,498	552	257	74	8,220
1,416	861	69	10	252	92	41	91	239	359	27	78	210	44	18	62	99
1,261	723	132	51	134	96	59	66	178	262	37	66	154	5	14	58	375
8,856	4,153	790	34	2,610	357	513	399	600	686	40	127	484	35	51	43	467
7,627	3,772	1,173	4	1,602	469	320	287	1,635	1,665	2	223	1,111	329	91	92	3,588
958	461	104	...	232	106	34	21	166	221	52	37	77	55	19	136	266
5,674	2,464	981	36	1,226	382	283	302	586	1,099	51	502	462	84	64	106	3,425
953,032	392,232	91,711	177,420	139,829	19,782	29,770	102,288	68,629	75,539	14,036	14,660	36,456	10,387	4,994	48	94,425
94,642	35,247	27,634	340	18,334	4,359	3,767	4,961	12,194	12,400	1,150	2,638	5,962	2,650	681	89	16,930
31,343	14,932	3,597	3,482	7,734	1,720	1,595	1,283	3,477	4,029	846	959	2,040	184	208	60	7,560
827,047	342,053	60,480	176,598	113,761	13,703	24,408	96,044	52,958	59,110	12,040	11,063	28,454	7,553	4,105	44	69,935
689,419	280,043	69,383	60,623	152,898	21,614	23,746	81,106	99,520	158,448	42,970	30,164	75,435	9,879	4,274	62	116,174
157,151	67,573	23,503	410,735	33,405	6,053	4,633	11,249	19,722	24,576	4,874	2,982	13,708	3,012	1,043	60	31,259
85,808	29,866	8,287	18,418	17,339	2,261	3,139	6,498	12,772	15,908	3,020	1,665	10,108	1,115	544	57	14,132
269,419	107,174	19,673	423,804	60,608	6,470	9,962	41,728	38,327	63,625	20,734	11,531	27,400	3,960	1,429	54	27,805
145,159	61,134	15,182	46,922	32,277	4,947	4,581	20,116	23,513	46,762	13,266	11,777	20,660	1,059	940	68	37,865
31,882	14,296	2,738	744	9,275	1,883	1,431	1,515	5,186	7,577	1,076	2,209	3,559	733	318	91	5,113
528,633	167,642	45,724	10,280	133,908	24,587	15,664	130,828	104,617	199,102	65,984	36,139	88,403	8,576	3,649	85	54,527
167,555	56,495	18,977	4,580	43,714	6,520	6,506	30,763	25,622	64,046	17,733	25,919	19,878	516	1,229	89	15,122
19,229	7,894	1,210	14	6,223	1,847	515	1,526	3,731	3,805	143	417	2,604	641	284	121	4,686
52,376	24,371	6,689	32,075	10,960	2,260	3,319	2,702	6,064	5,785	1,027	1,240	2,840	678	488	73	12,096
38,466	6,319	2,300	(5)	47,941	1,320	281	20,305	14,008	22,312	5,335	3,271	13,048	658	107	76	1,227
22,155	9,936	1,813	3592	6,026	1,124	395	2,269	2,101	3,536	1,143	692	1,427	274	130	52	3,565
22,220	5,735	898	(5)	5,391	1,319	218	8,659	8,395	16,387	7,325	567	7,732	763	158	110	2,889
206,632	56,892	13,837	42,884	53,788	10,197	4,430	64,604	44,696	83,231	33,278	4,033	40,874	5,046	1,253	84	14,942
801,683	366,985	54,276	102,110	196,927	14,900	27,168	39,317	75,363	98,768	11,528	28,429	52,032	6,779	3,274	33	120,160
13,048	6,135	995	...	3,689	1,115	378	736	2,195	1,912	303	214	1,260	135	124	68	4,086
104,139	45,027	7,796	10,002	32,000	1,861	2,951	4,502	7,429	10,297	1,580	2,184	5,390	1,143	408	28	7,577
542,842	272,734	34,731	458,982	130,170	4,457	14,996	26,772	46,161	59,004	8,579	16,942	29,594	3,889	1,946	28	19,882
19,661	9,192	1,179	218	6,198	1,062	922	890	3,021	3,421	222	1,007	2,048	144	131	35	8,581
7,498	3,330	765	4	2,163	608	460	168	1,298	1,946	82	699	452	713	86	63	3,238
26,374	10,957	2,340	613	8,101	1,792	1,274	1,297	4,192	6,554	245	2,017	3,818	474	164	42	6,412
88,121	19,610	6,470	32,291	14,606	4,005	6,187	4,952	11,067	15,634	517	5,366	9,470	281	415	75	70,384
449,549	206,919	33,087	39,311	107,392	8,961	12,384	41,495	44,401	69,011	23,634	10,843	28,955	5,579	1,973	33	39,992
245,050	124,149	15,164	424,775	56,123	3,459	6,475	14,905	18,756	30,719	8,718	5,011	14,294	2,696	943	26	9,556
53,452	26,368	3,828	1,045	14,883	2,192	1,400	3,736	5,511	7,060	1,847	1,416	2,828	969	360	41	16,888
97,762	44,782	10,158	(5)	33,363	1,572	4,119	3,768	8,862	8,183	708	1,817	4,613	1,045	418	32	7,966
53,285	11,620	3,937	(5)	16,514	1,738	390	19,086	11,272	23,049	12,361	2,599	7,220	869	252	82	5,582
3,142,266	688,469	356,147	149,323	826,157	71,650	21,019	1,029,501	615,825	1,525,548	832,666	109,049	537,927	45,906	13,836	84	147,920
57,374	17,501	4,982	32,085	16,962	1,643	1,346	12,855	7,139	13,690	5,382	1,017	5,920	1,371	359	69	4,329
670,744	132,617	46,634	(5)	215,314	13,860	1,745	260,574	150,157	431,176	266,107	33,418	125,717	5,934	2,354	80	44,362
473,536	115,138	61,791	(5)	126,024	9,802	4,801	155,980	94,707	220,465	114,243	13,488	87,126	5,608	2,300	76	18,552
1,940,612	423,213	242,740	(5)	615,095	46,345	13,127	600,092	363,822	860,217	446,934	61,126	319,164	32,993	8,823	88	80,677
1,103,367	301,851	91,895	140,363	269,470	26,327	17,119	256,342	128,584	364,677	178,014	64,475	105,898	16,290	4,710	69	91,830
137,434	36,839	14,785	32,399	21,524	2,270	2,231	24,074	10,554	31,680	14,168	3,691	7,946	5,875	538	60	7,992
38,294	18,664	3,694	32,672	9,191	906	1,380	1,787	3,254	5,820	2,236	762	2,433	389	223	54	6,814
146,658	32,385	13,339	32,399	37,896	3,959	1,534	56,146	25,319	71,475	40,704	5,312	23,803	1,656	682	91	14,605
153,598	43,934	15,610	32,355	42,523	4,302	3,124	40,750	24,767	56,479	27,302	8,218	18,814	2,145	701	65	8,686
212,016	51,274	14,510	32,573	61,571	4,500	1,816	72,572	41,036	121,656	66,903	15,273	36,701	2,779	825	71	9,557
146,605	53,889	12,695	31,078	41,602	4,275	2,638	30,428	9,154	47,867	11,884	27,351	7,022	1,610	889	81	14,714
188,375	43,260	13,360	375,609	33,327	3,863	2,391	16,565	10,090	19,438	9,076	2,647	6,577	1,138	498	49	21,461
80,387	21,606	3,902	14,766	21,836	2,252	2,005	14,020	4,410	10,262	5,741	1,221	2,602	698	354	77	8,001
573,411	155,722	67,953	29,250	147,927	16,365	11,499	144,695	72,765	228,371	139,926	18,806	63,582	6,057	3,744	113	48,734
23,721	10,840	3,378	214	5,921	948	680	1,740	2,387	2,857	475	489	1,448	445	400	159	5,041
12,862	5,485	828	66	3,350	948	290	1,895	2,759	3,691	263	1,580	1,074	774	141	110	2,479
536,828	139,397	63,747	428,970	138,656	14,469	10,529	141,060	67,619	221,823	139,188	16,737	61,060	4,838	3,203	103	41,214

⁴No data were obtained on the value of gas received for processing at natural gas liquids plants or on the value of residue gas sold or transferred. However, the estimated value (prior to processing) of natural gas liquids contained in such gas is included in the State totals.

⁵Figures for minerals received for preparation are included with those for supplies.

GENERAL SUMMARY

Table 4.—COMPARATIVE STATISTICS FOR MINERAL OPERATIONS IN THE
(For explanation of column captions and for statement on the minimum

	Major industry group, industry, and year	Number of operating companies	Number of mines, quarries, and wells	Number of preparation plants	Value of ship-ments ¹	Value added in mining	Number of persons engaged				Man-hours worked by production and development workers
							Production and development workers	All other employees	Proprietors and firm members		
									Total	Per-forming manual labor	
					(\$1,000)	(\$1,000)					(1,000)
	All mineral operations: Including crude petroleum and natural gas extraction:										
1	1954.....	32,932	514,347	8,814	15,147,297	11,740,054	666,621	139,347	40,176	20,958	1,288,461
2	1939.....	20,658	361,202	5,450	3,413,954	2,765,396	774,130	82,259	16,040	7,068	1,287,852
3	1919.....	(NA)	272,090	1,503	3,158,464	2,387,956	987,184	75,457	22,155	5,272	(NA)
	Excluding crude petroleum and natural gas extraction:										
4	1954.....	17,848	20,736	8,232	5,805,758	4,066,360	431,138	59,095	20,352	13,959	796,743
5	1939.....	11,310	13,557	4,716	1,754,123	1,429,122	625,134	45,105	8,310	5,213	1,022,824
6	1929.....	(NA)	12,506	(NA)	2,392,831	1,955,804	812,220	53,331	4,897	(NA)	(NA)
	Metal mining:										
7	1954.....	2,961	3,356	993	31,506,238	31,075,519	81,896	18,354	3,525	2,721	168,346
8	1939.....	1,886	2,095	693	517,375	416,956	89,791	10,344	1,169	824	190,835
9	1929.....	(NA)	2,007	(NA)	633,821	496,335	115,775	9,802	313	(NA)	(NA)
10	1919.....	(NA)	2,699	634	551,270	402,098	135,916	10,703	1,625	868	(NA)
	Iron ores:										
11	1954.....	94	298	123	547,218	435,668	28,216	5,954	73	46	53,288
12	1939.....	116	196	44	150,871	133,390	20,377	2,274	32	14	38,513
13	1929.....	(NA)	214	(NA)	197,335	167,127	28,623	2,490	9	(NA)	(NA)
14	1919.....	(NA)	424	74	218,218	177,402	46,339	3,037	41	9	(NA)
	Copper ores:										
15	1954.....	179	201	48	508,729	334,876	21,544	6,269	184	145	46,676
16	1939.....	35	51	27	145,590	108,494	23,844	2,908	...	...	51,239
17	1929.....	(NA)	180	45	283,517	221,690	44,502	3,465	76	(NA)	(NA)
18	1919.....	(NA)	226	57	181,258	130,167	43,717	3,179	103	62	(NA)
	Lead and zinc ores:										
19	1954.....	411	491	141	175,947	107,409	13,592	2,974	450	343	27,554
20	1939.....	208	260	124	72,648	47,310	15,731	1,994	89	48	32,481
21	1929.....	(NA)	375	188	112,428	84,793	25,907	1,818	78	(NA)	(NA)
22	1919.....	(NA)	473	262	75,579	53,623	21,884	1,734	412	186	(NA)
	Lode gold and silver ores:										
23	1954.....	384	392	159	40,665	31,740	3,699	576	366	289	8,108
24	1939.....	1,004	1,038	365	114,234	82,863	21,847	2,034	631	492	50,577
25	1929.....	(NA)	258	94	26,107	17,604	7,946	663	114	(NA)	(NA)
26	1919.....	(NA)	799	191	58,832	35,927	15,436	1,383	712	485	(NA)
	Placer gold:										
27	1954.....	131	136	116	5,916	3,614	501	55	173	145	1,255
28	1939.....	307	340	339	28,027	21,935	3,228	477	260	167	8,088
29	1929.....	(NA)	37	(NA)	3,779	2,582	578	90	18	(NA)	(NA)
30	1919.....	(NA)	132	2	9,369	5,847	1,380	149	122	77	(NA)
	Bauxite:										
31	1954.....	12	20	9	16,819	12,827	661	191	2	...	1,288
32	1939.....	10	12	11	2,527	1,965	727	100	...	...	1,176
33	1929.....	(NA)	11	(NA)	2,239	1,781	602	87	1	...	(NA)
34	1919.....	(NA)	15	(NA)	2,190	1,748	738	66	2	...	(NA)
	Manganese ores:										
35	1954.....	319	360	63	32,398	18,118	2,266	338	458	386	4,293
36	1939.....	26	34	14	945	707	504	41	12	4	959
37	1929.....	(NA)	21	(NA)	1,184	967	354	35	4	(NA)	(NA)
38	1919.....	(NA)	37	8	2,188	1,493	909	88	35	6	(NA)
	Tungsten ores:										
39	1954.....	500	524	171	60,737	40,744	2,635	352	714	634	6,327
40	1939.....	39	53	32	3,354	2,427	701	143	31	22	1,639
41	1929.....	(NA)	13	(NA)	734	540	186	31	3	...	(NA)
	Molybdenum ores and Ferro-alloy ores, except vanadium, n.e.c.:										
42	1954.....	155	158	63	60,536	48,537	1,937	550	243	194	4,502
43	1939.....	17	16	7	15,458	13,271	963	141	9	5	2,088
	Metal mining contract services:										
44	1954.....	114	xxx	xxx	38,679	26,703	2,863	196	82	55	6,519
45	1939.....	69	xxx	xxx	2,368	1,822	637	58	49	28	1,344

See footnotes at end of table.

UNITED STATES, BY INDUSTRY: 1954, 1939, 1929, and 1919

size of establishments included for each year, see INTRODUCTION)

Principal expenses designated Below (\$1,000)						Purchased machinery installed (\$1,000)	Capital expenditures (\$1,000)				Horsepower rating of power equipment		Energy used (million kwh equiva- lent)	
Wages and salaries		Supplies	Fuel ²	Pur- chased electric energy	Contract work		Develop- ment and explora- tion of mineral property	Prepa- ration plant and other con- struction	New machinery and equipment	Used plant and equipment	Aggregate horse- power (1,000)	Horse- power per produc- tion worker		
Production and development workers	All other employees													
2,639,378 970,546 1,304,409	817,601 204,225 151,272	2,023,377 307,980 528,854	206,491 60,965 94,849	161,083 69,245 28,661	1,827,372 210,368 82,239	1,214,881 (NA) (NA)	1,309,076 (NA) 334,015	313,905 27,435 (NA)	992,399 241,135 (NA)	110,285 21,962 (NA)	40,879 14,160 6,786	61 18 7	373,126 224,898 (NA)	1 2 3
1,662,783 750,111 1,099,895	331,753 106,278 139,023	855,028 220,789 298,198	109,681 34,718 49,146	126,066 62,144 71,769	269,513 7,350 17,914	351,676 (NA) 86,733	79,118 (NA) 89,646	155,083 16,217 (NA)	224,649 52,666 (NA)	40,499 9,451 (NA)	20,778 9,059 7,584	48 14 9	88,030 77,131 129,684	4 5 6
353,303 127,111 178,319 209,199	109,722 26,806 27,647 24,387	229,913 68,719 93,951 99,380	26,936 10,400 17,098 25,490	32,662 18,686 18,975 11,769	117,079 2,616 7,462 5,924	86,891 (NA) 25,391 (NA)	64,569 (NA) 59,682 56,668	84,313 5,409 (NA) (NA)	65,655 14,775 (NA) (NA)	6,530 3,342 (NA) (NA)	5,113 2,264 1,696 1,330	62 25 15 10	21,087 14,647 24,623 (NA)	7 8 9 10
119,688 27,431 41,049 76,698	37,221 5,895 6,385 7,044	75,866 10,791 18,717 27,841	9,549 2,280 5,332 8,871	13,767 4,174 4,607 1,634	47,515 236 1,552 2,470	36,994 (NA) 4,016 (NA)	23,515 (NA) 10,223 17,360	32,790 784 (NA) (NA)	27,955 3,550 (NA) (NA)	718 210 (NA) (NA)	1,795 600 501 381	64 29 17 8	5,928 3,246 7,763 (NA)	11 12 13 14
98,491 34,486 73,200 66,390	37,574 8,078 10,136 8,040	72,822 23,562 43,995 34,275	8,576 4,168 9,210 11,310	6,278 4,899 6,027 3,556	43,873 511 2,595 422	23,821 (NA) 13,084 (NA)	23,750 (NA) 22,151 13,302	35,265 1,822 (NA) (NA)	21,955 2,577 (NA) (NA)	1,240 1,507 (NA) (NA)	1,545 753 702 524	72 32 16 12	9,255 6,693 12,200 (NA)	15 16 17 18
53,676 20,253 39,191 30,708	17,687 5,084 5,053 3,835	24,673 10,580 18,344 15,312	1,409 848 1,536 2,783	6,838 3,550 6,102 2,592	6,080 363 1,653 863	5,942 (NA) 3,752 (NA)	6,509 (NA) 8,172 4,269	2,054 390 (NA) (NA)	2,509 778 (NA) (NA)	448 339 (NA) (NA)	749 353 358 230	55 22 14 10	1,641 1,556 2,964 (NA)	19 20 21 22
15,409 33,321 12,983 23,818	2,898 4,973 1,738 3,006	7,184 16,261 5,934 13,041	674 1,595 558 1,623	991 3,921 1,317 2,336	684 1,140 694 1,237	1,356 (NA) 1,509 (NA)	1,624 (NA) 5,641 7,863	728 1,890 (NA) (NA)	590 3,588 (NA) (NA)	301 615 (NA) (NA)	148 335 99 150	40 15 12 10	720 1,830 1,130 (NA)	23 24 25 26
1,997 5,632 970 1,914	314 1,162 260 437	1,554 3,780 590 2,245	248 700 1 20	661 1,471 604 1,124	41 141 2 133	302 (NA) 359 (NA)	180 (NA) 76 201	52 135 (NA) (NA)	121 3,348 (NA) (NA)	151 442 (NA) (NA)	64 110 20 36	128 34 35 26	170 510 69 (NA)	27 28 29 30
2,529 578 513 942	1,052 241 277 157	789 269 216 304	239 187 122 138	134 60 38 ...	1,603 46 82 ...	356 (NA) 96 (NA)	24 (NA) 13 11	11 20 (NA) (NA)	271 173 (NA) (NA)	4 7 (NA) (NA)	49 13 6 3	74 18 10 3	170 270 (NA) (NA)	31 32 33 34
7,643 483 392 1,086	1,649 83 88 134	5,087 161 140 448	721 37 32 52	477 40 39 46	3,573 ... 6 149	2,304 (NA) 12 (NA)	607 (NA) 40 238	708 3 (NA) (NA)	1,366 29 (NA) (NA)	583 6 (NA) (NA)	106 5 2 6	47 10 7 6	477 37 73 (NA)	35 36 37 38
13,148 1,114 297	1,610 254 61	8,295 659 127	933 99 10	753 114 53	1,885 55 4	3,562 (NA) 14	2,168 (NA) 92	1,267 163 (NA)	2,224 205 (NA)	667 104 (NA)	156 15 3	59 22 18	371 41 (NA)	39 40 41
10,539 1,499	3,946 561	9,853 1,736	357 44	1,289 364	3,359 43	2,609 (NA)	410 (NA)	3,334 42	1,987 102	198 40	107 36	55 37	280 44	42 43
13,933 853	1,335 132	10,412 382	1,273 144	133 20	509 (NA)	2,049 (NA)	xxx (NA)	523 (NA)	1,522 (NA)	355 (NA)	152 23	53 36	358 (NA)	44 45

GENERAL SUMMARY

Table 4.—COMPARATIVE STATISTICS FOR MINERAL OPERATIONS IN THE
(For explanation of column captions and for statement on the minimum

	Major industry group, industry, and year	Number of operating companies	Number of mines, quarries, and wells	Number of preparation plants	Value of shipments ¹	Value added in mining	Number of persons engaged				Man-hours worked by production and development workers
							Production and development workers	All other employees	Proprietors and firm members		
									Total	Per-forming manual labor	
					(\$1,000)	(\$1,000)					(1,000)
Mercury ores:											
1	1954.....	81	87	75	4,519	3,355	372	81	125	110	84
2	1939.....	72	69	60	1,830	1,425	621	81	51	41	1,421
3	1929.....	(NA)	40	(NA)	2,820	2,042	1,029	88	10	(NA)	(NA)
4	1919.....	(NA)	26	24	1,803	1,235	748	71	27	11	(NA)
Titanium ores:											
5	1954.....	7	8	8	12,750	11,134	568	275	1	1	1,261
6	1939.....	3	3	3	458	370	183	13	...	...	322
Uranium-radium-vanadium ores:											
7	1954.....	572	636	8	(NA)	(NA)	2,944	523	614	339	6,227
8	1939.....	8	8	6	1,472	1,043	378	63	5	3	879
Metallic ores, n.e.c.:											
9	1954.....	44	45	9	1,325	794	98	20	40	34	207
Anthracite mining:											
10	1954.....	1,296	1,263	196	408,431	196,835	33,026	4,436	2,338	2,065	48,266
11	1939.....	359	518	163	201,126	154,023	83,112	5,480	301	161	124,462
12	1929.....	(NA)	303	(NA)	384,854	320,756	142,801	8,370	38	...	(NA)
13	1919.....	(NA)	534	324	364,084	289,049	147,372	7,351	159	34	(NA)
Anthracite:											
14	1954.....	1,160	1,263	196	365,536	167,090	28,823	3,946	2,201	1,985	42,061
15	1939.....	289	518	163	189,648	146,418	80,429	5,284	232	139	120,085
Anthracite stripping contract services:											
16	1954.....	131	xxx	xxx	42,048	29,079	4,074	482	126	72	6,038
17	1939.....	58	xxx	xxx	10,936	7,126	2,461	185	56	21	4,038
Anthracite contract services, except stripping:											
18	1954.....	13	xxx	xxx	847	666	129	8	11	8	167
19	1939.....	13	xxx	xxx	542	479	222	11	13	1	339
Bituminous coal and lignite mining:											
20	1954.....	6,104	6,844	628	2,068,183	1,418,384	199,655	19,178	7,760	5,485	325,769
21	1939.....	5,182	5,847	365	731,427	610,674	370,944	19,834	4,676	3,409	545,702
22	1929.....	(NA)	5,639	(NA)	966,694	819,976	458,835	23,686	2,983	(NA)	(NA)
23	1919.....	(NA)	8,308	134	1,145,978	962,833	546,269	33,626	4,242	1,832	(NA)
Bituminous coal:											
24	1954.....	5,913	6,784	628	2,040,200	1,396,774	197,819	18,994	7,539	5,324	322,410
25	1939.....	5,021	5,716	365	727,358	607,318	369,265	19,690	4,497	3,271	542,310
Lignite:											
26	1954.....	56	60	...	10,387	9,093	505	69	57	43	901
27	1939.....	130	131	...	3,457	2,879	1,480	115	144	118	3,027
Bituminous coal and lignite mining contract services:											
28	1954.....	152	xxx	xxx	17,596	12,517	1,331	115	164	118	2,458
29	1939.....	32	xxx	xxx	612	477	199	29	35	20	365
Crude petroleum and natural gas extraction:											
30	1954.....	15,099	493,611	582	9,341,539	7,673,694	235,483	80,252	19,824	6,999	491,718
31	1939.....	9,348	347,645	736	1,659,831	1,242,473	148,996	37,154	7,730	1,855	265,028
32	1919 ⁶	(NA)	257,673	1,115	931,793	613,744	93,659	17,952	14,319	1,995	(NA)
Crude petroleum and Natural gas:											
33	1954.....	9,720	485,907	xxx	7,070,097	6,129,213	109,792	62,714	13,316	3,886	216,581
34	1939.....	8,061	347,645	xxx	1,375,954	1,071,989	105,505	30,546	6,294	1,346	190,674
Natural gas liquids:											
35	1954.....	181	xxx	582	640,422	(NA)	13,560	3,780	72	13	27,862
36	1939.....	295	xxx	736	96,338	(NA)	8,332	2,005	10	2	16,634
Drilling oil and gas wells contract services:											
37	1954.....	2,846	7,372	xxx	972,745	623,967	62,145	5,831	3,399	1,684	133,216
38	1939.....	985	(NA)	xxx	128,107	(NA)	22,548	1,676	862	292	38,621

See footnotes at end of table.

UNITED STATES, BY INDUSTRY: 1954, 1939, 1929, and 1919—Continued
size of establishments included for each year, see INTRODUCTION)

Principal expenses designated below (\$1,000)						Purchased machinery installed (\$1,000)	Capital expenditures (\$1,000)				Horsepower rating of power equipment		Energy used (million kwh equiva- lent)
Wages and salaries		Supplies	Fuel ²	Pur- chased electric energy	Contract work		Develop- ment and explora- tion of mineral property	Prepa- ration plant and other con- struction	New machinery and equipment	Used plant and equipment	Aggregate horse- power (1,000)	Horse- power per produc- tion worker	
Production and development workers	All other employees												
1,607 752 1,383 828	365 164 220 221	(D) 229 464 404	204 139 230 127	61 33 69 29	28 4 15 8	226 (NA) 618 (NA)	167 (NA) 460 162	176 68 (NA) (NA)	116 139 (NA) (NA)	56 54 (NA) (NA)	12 10 6 3	31 16 5 3	78 92 140 (NA)
2,397 140	1,302 42	(D) 38	449 15	743 35	335 ...	1,286 (NA)	... (NA)	2,904 15	1,092 72	2 ...	46 2	81 12	361 18
11,908 497	2,660 112	9,844 244	2,263 140	505 ...	7,462 45	5,336 (NA)	5,494 (NA)	4,289 77	3,842 169	1,168 17	165 7	56 18	1,266 224
338	109	(D)	41	32	132	748	121	212	105	639	19	(4)	12
113,932 107,798 229,967 210,289	21,997 12,252 21,282 12,995	29,027 25,489 43,367 59,738	3,932 3,920 7,420 11,406	8,787 6,524 6,509 1,900	51,226 11,170 6,802 1,558	9,270 (NA) 5,580 (NA)	1,438 (NA) 7,902 6,190	2,241 1,771 (NA) (NA)	4,767 2,882 (NA) (NA)	2,048 322 (NA) (NA)	1,506 1,092 1,041 900	46 13 7 6	7,198 19,716 42,694 (NA)
98,678 104,378	19,392 11,482	20,224 22,496	2,038 3,275	8,397 6,430	50,156 11,029	5,667 (NA)	1,438 (NA)	2,148 1,771	3,367 1,974	931 221	1,072 1,019	37 13	6,589 19,455
14,809 3,166	2,571 749	8,651 2,956	1,868 619	390 94	1,068 141	3,529 (NA)	xxx xxx	93 899	1,371	1,073 101	433 71	106 29	602 261
445 254	34 21	152 37	26 26	... ...	2 (NA)	74 (NA)	xxx xxx	xxx 9	29 9	44 2	1 2	11 11	7 (NA)
764,863 432,188 574,919 683,192	109,442 44,488 58,647 68,749	322,916 88,516 106,560 143,084	17,111 5,432 7,529 25,901	47,802 24,895 30,739 11,291	55,188 1,910 1,890 2,869	121,640 (NA) 34,947 (NA)	3,601 (NA) 16,928 31,298	34,168 5,321 (NA) (NA)	66,206 22,471 (NA) (NA)	14,836 2,967 (NA) (NA)	6,332 3,373 3,125 2,158	32 9 7 4	15,351 22,587 37,766 (NA)
757,175 430,564	108,474 44,183	319,298 88,093	15,712 5,299	47,512 24,749	54,231 1,899	118,481 (NA)	3,586 (NA)	33,948 5,305	63,845 22,357	14,382 2,947	6,093 3,344	31 9	14,854 22,339
2,177 1,384	411 219	627 342	239 80	254 145	206 11	607 (NA)	15 (NA)	134 16	479 73	11 20	75 21	148 14	144 248
5,511 240	557 86	2,991 81	1,160 53	36 1	751 (NA)	2,552 (NA)	xxx xxx	86 41	1,882 41	443	164 8	123 42	353 (NA)
976,595 220,435 135,397	485,848 97,947 33,879	1,168,349 (NA) 226,903	96,810 (NA) 20,071	35,017 (NA) 973	1,557,859 (NA) 70,102	863,205 (NA) (NA)	1,229,958 (NA) 236,553	158,822 (NA) (NA)	767,750 (NA) (NA)	69,786 (NA) (NA)	20,101 5,101 1,827	85 34 20	285,096 (NA) (NA)
459,955 155,700	375,785 79,199	692,682 78,538	36,177 19,647	30,624 6,746	1,458,807 199,034	621,048 (NA)	1,206,214 (NA)	98,229 9,757	558,950 177,849	35,061 11,561	9,123 3,397	83 32	141,655 92,788
63,983 13,212	21,074 5,052	43,891 8,653	1,964 6,600	3,190 355	36,726 3,984	65,752 (NA)	xxx xxx	55,794 1,461	51,227 10,620	2,938 949	2,902 772	214 93	113,449 54,979
264,797 36,020	39,515 5,917	298,789 (NA)	36,704 (NA)	320 (NA)	46,048 (NA)	120,385 (NA)	23,416 (NA)	1,939 (NA)	99,722 (NA)	28,391 (NA)	4,265 678	69 30	23,302 (NA)

Table 4.—COMPARATIVE STATISTICS FOR MINERAL OPERATIONS IN THE
(For explanation of column captions and for statement on the minimum

	Major industry group, industry, and year	Number of operating companies	Number of mines, quarries, and wells	Number of preparation plants	Value of shipments ¹ (\$1,000)	Value added in mining (\$1,000)	Number of persons engaged				Man-hours worked by production and development workers (1,000)
							Production and development workers	All other employees	Proprietors and firm members		
									Total	Per-forming manual labor	
1	Building, repairing, and dismantling rigs and derricks contract services:										
2	1954.....	120	...	xxx	11,657	9,552	1,539	93	131	68	1,720
	1939.....	115	(NA)	xxx	9,155	(NA)	3,478	258	111	44	3,265
3	Oil and gas field contract services, n.e.c.:										
4	1954.....	2,502	332	xxx	646,618	485,025	48,447	7,834	2,906	1,348	112,339
	1939.....	519	(NA)	xxx	50,277	(NA)	9,133	2,669	453	171	15,834
5	Nonmetallic minerals (except fuels) mining:										
6	1954: Including operations classified in manufactures..	7,571	9,273	6,415	1,822,906	1,375,622	116,561	17,127	6,729	3,688	254,362
7	Mineral industries only...	6,623	8,054	6,211	1,582,192	1,181,986	97,081	16,347	6,561	3,568	214,799
8	1939.....	4,127	5,097	3,459	323,043	255,702	81,306	9,113	2,164	819	161,824
	1929.....	(NA)	4,557	(NA)	407,461	318,737	94,808	11,473	1,563	(NA)	(NA)
9	Dimension stone:										
10	1954: Including operations classified in manufactures....	523	558	204	78,903	61,774	11,389	936	467	253	23,155
	Mineral industries only.....	322	352	...	18,945	15,155	3,068	156	299	133	5,893
11	Dimension limestone:										
12	1954.....	63	65	...	3,754	2,942	472	28	72	41	872
	1939.....	33	40	...	1,541	1,368	617	55	13	(NA)	(NA)
13	Dimension granite:										
14	1954.....	79	86	...	5,738	4,590	917	50	55	25	1,769
	1939.....	75	91	...	3,268	2,674	1,163	75	59	(NA)	(NA)
15	Dimension marble:										
16	1954.....	18	31	...	3,491	2,893	612	25	8	3	1,245
	1939.....	13	19	...	879	721	652	17	5	(NA)	(NA)
17	Dimension sandstone:										
18	1954.....	107	115	...	5,292	4,178	925	48	97	43	1,752
	1939.....	25	25	...	641	501	269	18	22	(NA)	(NA)
19	Dimension trap rock and Dimension stone, n.e.c.:										
20	1954.....	55	55	...	670	552	142	5	67	21	255
	1939.....	4	4	...	27	19	24	...	4	3	36
21	Crushed and broken stone:										
22	1954: Including operations classified in manufactures....	1,632	2,137	1,761	584,101	434,646	39,413	(NA)	(NA)	(NA)	88,136
	Mineral industries only.....	1,474	1,882	1,761	465,254	337,611	33,124	4,280	1,261	595	75,559
23	Crushed and broken limestone:										
24	1954.....	1,174	1,443	1,362	328,757	239,604	24,925	3,315	1,017	490	56,335
25	1939.....	714	916	(NA)	55,172	41,430	17,655	1,726	507	(NA)	(NA)
	1929.....	(NA)	785	(NA)	66,908	(NA)	16,443	(NA)	(NA)	(NA)	(NA)
26	Crushed and broken granite:										
27	1954.....	75	99	88	30,875	22,201	2,344	206	55	24	5,607
28	1939.....	59	79	74	7,030	5,042	2,100	232	22	10	4,574
	1929.....	(NA)	89	(NA)	6,751	(NA)	2,066	(NA)	(NA)	(NA)	(NA)
29	Crushed and broken slate:										
30	1954.....	6	11	11	8,162	5,055	464	69	2	...	1,198
31	1939.....	6	11	11	2,137	1,236	407	43	...	...	803
	1929.....	(NA)	6	(NA)	1,026	(NA)	214	(NA)	(NA)	(NA)	(NA)
32	Crushed and broken marble:										
33	1954.....	14	17	16	5,142	3,661	379	52	2	2	796
34	1939.....	6	6	5	185	160	70	9	1	...	127
	1929.....	(NA)	12	(NA)	471	(NA)	123	(NA)	(NA)	(NA)	(NA)
35	Crushed and broken trap rock:										
36	1954.....	100	139	131	45,471	34,127	2,680	377	75	29	6,659
37	1939.....	97	116	115	9,632	7,340	1,886	278	34	11	4,001
	1929.....	(NA)	131	(NA)	14,799	(NA)	2,877	(NA)	(NA)	(NA)	(NA)
38	Crushed and broken sandstone:										
39	1954.....	60	86	74	31,190	22,913	1,529	182	46	23	3,283
40	1939.....	60	68	50	2,930	2,160	1,134	98	14	6	1,990
	1929.....	(NA)	56	(NA)	2,718	(NA)	921	(NA)	(NA)	(NA)	(NA)
41	Crushed and broken stone, n.e.c.:										
42	1954.....	83	87	79	15,657	10,050	803	79	64	27	1,681
43	1939.....	60	61	52	2,528	1,995	858	79	30	17	1,970
	1929.....	(NA)	200	(NA)	6,954	(NA)	1,507	(NA)	(NA)	(NA)	(NA)

See footnotes at end of table.

UNITED STATES, BY INDUSTRY: 1954, 1939, 1929, and 1919—Continued
size of establishments included for each year, see Introduction)

Principal expenses designated below (\$1,000)						Purchased machinery installed (\$1,000)	Capital expenditures (\$1,000)				Horsepower rating of power equipment		Energy used (million kwh equiva- lent)	
Wages and salaries		Supplies	Fuel ²	Pur- chased electric energy	Contract work		Develop- ment and explora- tion of mineral property	Prepa- ration plant and other con- struction	New machinery and equipment	Used plant and equipment	Aggregate horse- power (1,000)	Horse- power per produc- tion worker		
Production and development workers	All other employees													
4,769 3,725	452 568	1,689 (NA)	308 (NA)	3 (NA)	195 (NA)	347 (NA)	... (NA)	56 (NA)	308 (NA)	73 (NA)	39 15	25 4	84 (NA)	1 2
183,091 11,778	49,022 7,211	131,298 (NA)	21,657 (NA)	880 (NA)	16,083 (NA)	55,673 (NA)	328 (NA)	2,804 (NA)	57,543 (NA)	3,323 (NA)	3,772 239	78 26	6,606 (NA)	3 4
430,685 363,604 83,374 114,691	90,592 86,416 21,641 31,678	7273,172 230,371 38,065 54,319	761,702 60,899 14,966 17,098	736,815 35,351 12,040 15,547	746,020 45,386 2,270 1,760	8133,875 132,102 (NA) 20,814	89,510 9,401 (NA) 5,135	834,361 34,054 3,716 (NA)	888,021 86,808 12,634 (NA)	817,085 16,805 2,820 (NA)	87,827 7,659 2,311 1,651	67 79 29 17	844,394 43,792 20,289 28,603	5 6 7 8
35,364 7,938	4,863 687	11,544 2,482	1,204 401	1,853 389	1,208 574	2,664 891	178 69	393 86	1,794 581	491 211	262 94	23 31	744 142	9 10
1,429 632	127 89	586 80	87 36	54 53	52 4	158 (NA)	... (NA)	... 5	89 18	36 10	18 17	37 28	34 39	11 12
2,404 1,297	235 182	693 313	96 67	229 200	149 14	226 (NA)	30 (NA)	5 14	157 50	53 21	30 29	33 22	35 77	13 14
1,505 449	135 48	511 49	13 52	80 48	... 9	55 (NA)	5 (NA)	14 ...	39 2	3 9	13 8	21 12	8 130	15 16
2,273 268	183 29	631 95	161 32	22 8	359 5	413 (NA)	23 (NA)	64 ...	285 7	100 1	27 4	30 15	52 28	17 18
327 13	7 ...	61 2	44 5	4 1	14 ...	39 (NA)	11 (NA)	3 ..	11 1	19 1	6 1	43 40	13 1	19 20
145,915 122,499	(NA) 22,697	149,697				(NA) 44,701	(NA) 1,376	(NA) 11,894	(NA) 26,316	(NA) 5,357	(NA) 2,779	(NA) 84	(NA) 6,883	21 22
90,715 17,064 19,437	17,103 3,850 (NA)	58,726 7,720 12,693	11,913 2,735 2,399	8,634 2,780 2,592	7,336 507 (NA)	32,622 (NA) (NA)	1,219 (NA) (NA)	7,638 (NA) (NA)	19,153 (NA) (NA)	3,963 (NA) (NA)	2,183 (NA) 276	88 (NA) 17	4,956 (NA) (NA)	23 24 25
7,573 1,782 2,162	1,306 573 (NA)	(D) 1,405 1,273	747 223 209	838 334 359	729 26 (NA)	3,041 (NA) (NA)	13 (NA) (NA)	844 75 (NA)	1,841 210 (NA)	489 50 (NA)	169 48 38	72 23 18	282 166 (NA)	26 27 28
1,949 426 209	420 93 (NA)	2,045 716 120	610 39 21	336 138 56	124 8 (NA)	304 (NA) (NA)	... (NA) (NA)	35 ... (NA)	277 24 (NA)	... ... (NA)	26 13 5	56 32 23	498 55 (NA)	29 30 31
1,120 44 162	249 30 (NA)	(D) 11 19	86 6 5	117 8 31	168 ... (NA)	196 (NA) (NA)	10 (NA) (NA)	154 ... (NA)	186 1 (NA)	4 1 (NA)	13 2 2	34 29 16	54 11 (NA)	32 33 34
12,089 2,452 4,247	2,116 651 (NA)	(D) 1,344 2,104	1,409 413 372	1,148 503 618	987 32 (NA)	3,870 (NA) (NA)	50 (NA) (NA)	1,196 137 (NA)	1,915 284 (NA)	509 101 (NA)	217 96 61	81 51 21	507 280 (NA)	35 36 37
5,970 1,084 1,051	1,084 174 (NA)	(D) 519 473	890 123 70	542 105 144	737 23 (NA)	4,096 (NA) (NA)	6 (NA) (NA)	1,772 23 (NA)	2,701 39 (NA)	145 31 (NA)	108 25 15	71 22 16	393 95 (NA)	38 39 40
3,083 800 1,941	419 190 (NA)	4,646 314 1,423	395 101 145	213 95 219	604 23 (NA)	572 (NA) (NA)	78 (NA) (NA)	255 34 (NA)	243 136 (NA)	247 30 (NA)	63 21 26	79 24 17	193 46 (NA)	41 42 43

Table 4.—COMPARATIVE STATISTICS FOR MINERAL OPERATIONS IN THE
(For explanation of column captions and for statement on the minimum

	Major industry group, industry, and year	Number of operating companies	Number of mines, quarries, and wells	Number of preparation plants	Value of shipments ¹	Value added in mining	Number of persons engaged				Man-hours worked by production and development workers
							Production and development workers	All other employees	Proprietors and firm members		
									Total	Per-forming manual labor	
					(\$1,000) *	(\$1,000)					(1,000)
	Common sand and gravel:										
1	1954.....	3,196	3,766	3,156	435,662	334,046	28,423	5,667	3,408	1,852	65,600
2	1939.....	1,129	1,380	1,383	69,130	53,870	14,584	2,445	711	253	31,324
3	1929.....	(NA)	1,165	(NA)	102,312	81,159	15,994	3,672	249	(NA)	(NA)
	Glass sand:										
4	1954.....	40	44	38	18,591	13,701	1,144	151	26	11	2,505
5	1939.....	32	39	40	6,137	4,625	1,280	242	5	1	2,667
6	1929.....	(NA)	32	(NA)	5,359	4,082	1,030	95	...	(NA)	(NA)
	Foundry sand:										
7	1954.....	105	139	115	11,762	8,982	966	115	89	50	1,998
8	1939.....	97	144	105	4,136	3,440	1,095	131	80	36	1,794
9	1929.....	(NA)	128	(NA)	4,776	3,994	1,037	200	19	(NA)	(NA)
	Bentonite:										
10	1954.....	29	43	28	21,830	16,350	578	56	23	7	1,340
11	1939.....	27	29	20	1,982	1,463	357	62	4	1	687
	Fire clay:										
12	1954: Including operations classified in manufactures.....	279	357	61	31,819	24,335	3,022	(NA)	(NA)	(NA)	5,542
13	Classified in minerals industries only.....	180	252	61	22,206	17,468	1,802	185	167	74	3,123
14	1939.....	200	306	44	7,178	6,168	3,655	255	108	41	5,642
15	1929.....	(NA)	236	(NA)	10,753	8,469	4,139	363	72	(NA)	(NA)
16	1919.....	(NA)	350	45	10,086	8,090	5,453	447	187	48	(NA)
	Fuller's earth:										
17	1954.....	15	19	13	6,012	4,179	510	54	8	4	1,109
18	1939.....	21	22	18	2,107	1,402	562	116	2	...	1,051
19	1929.....	(NA)	24	(NA)	4,812	3,589	991	105	...	...	(NA)
20	1919.....	(NA)	9	8	2,019	1,372	824	49	...	...	(NA)
	Kaolin and ball clay:										
21	1954: Including operations classified in manufactures.....	48	69	38	33,424	26,748	2,843	(NA)	(NA)	(NA)	6,205
22	Classified in mineral industries only.....	40	61	38	31,892	25,249	2,820	328	19	7	6,159
23	1939.....	75	95	53	7,239	5,437	3,168	266	26	3	5,987
	Feldspar:										
24	1954.....	58	110	22	6,669	4,048	579	37	84	70	1,235
25	1939.....	47	59	2	981	859	512	54	39	21	1,016
26	1929.....	(NA)	58	(NA)	1,935	1,599	598	95	10	(NA)	(NA)
27	1919.....	(NA)	32	4	584	441	349	29	20	6	(NA)
	Magnesite and brucite:										
28	1954.....	4	4	1	1,655	1,372	121	11	1	1	237
29	1939.....	3	4	1	1,396	1,289	216	12	...	...	437
30	1929.....	(NA)	5	(NA)	2,044	1,448	351	27	...	...	(NA)
31	1919.....	(NA)	11	7	2,138	1,459	448	38	13	...	(NA)
	Clay, ceramic, and refractory minerals, n.e.c.:										
32	1954: Including operations classified in manufactures.....	674	802	84	39,038	29,109	3,653	(NA)	(NA)	(NA)	7,375
33	Classified in minerals industries only.....	169	184	84	13,504	9,783	1,053	98	99	50	2,174
34	1939.....	524	617	75	6,481	5,124	2,989	77	78	8	5,646
	Natural abrasives:										
35	1954.....	32	32	24	4,474	3,681	251	34	25	12	524
36	1939.....	27	36	25	1,335	1,115	383	60	12	3	798
	Barite:										
37	1954.....	36	45	35	18,269	14,051	1,036	89	35	18	2,403
38	1939.....	37	47	32	2,065	1,652	792	62	16	4	1,439
39	1929.....	(NA)	44	(NA)	1,802	1,489	844	71	9	(NA)	(NA)
40	1919.....	(NA)	98	5	1,592	1,276	919	59	93	3	(NA)
	Fluorspar:										
41	1954.....	94	105	33	15,461	9,914	997	263	114	82	2,001
42	1939.....	60	61	53	3,397	2,655	1,287	109	49	13	2,568
43	1929.....	(NA)	36	(NA)	2,858	2,038	1,053	118	13	(NA)	(NA)
44	1919.....	(NA)	72	25	3,335	2,392	1,124	119	36	7	(NA)
	Potash, soda, and borate minerals:										
45	1954.....	15	20	16	107,757	82,213	4,738	1,584	1	...	9,381
46	1939.....	15	17	13	17,031	13,330	2,049	389	6	1	4,388
	Phosphate rock:										
47	1954.....	53	73	54	117,976	62,089	4,579	861	44	21	10,119
48	1939.....	33	40	50	12,286	9,003	3,372	382	12	...	6,680
49	1929.....	(NA)	33	(NA)	13,044	9,497	3,201	305	2	(NA)	(NA)
50	1919.....	(NA)	69	20	10,300	6,155	4,373	374	14	...	(NA)

See footnotes at end of table.

GENERAL SUMMARY

A-19

UNITED STATES, BY INDUSTRY: 1954, 1939, 1929, and 1919—Continued

size of establishments included included for each year, see INTRODUCTION)

Principal expenses designated below (\$1,000)						Purchased machinery installed (\$1,000)	Capital expenditures (\$1,000)				Horsepower rating of power equipment		Energy used (million kwh equiva- lent)	
Wages and salaries		Supplies	Fuel ²	Pur- chased electric energy	Contract work		Develop- ment and explora- tion of mineral property	Prepa- ration plant and other con- struction	New machinery and equipment	Used plant and equipment	Aggregate horse- power (1,000)	Horse- power per produc- tion worker		
Production and development workers	All other employees													
111,600 16,482 22,780	26,958 5,447 10,746	57,481 7,432 11,917	19,758 4,156 3,990	8,797 3,273 4,921	13,919 399 325	45,825 (NA) 7,174	1,573 (NA) ...	7,420 870 (NA)	27,254 3,752 (NA)	7,917 1,028 (NA)	3,068 643 517	108 44 32	7,978 3,645 5,832	1 2 3
4,279 1,456 1,314	819 600 278	3,208 747 675	840 322 282	807 366 305	166 77 15	965 (NA) 433	34 (NA) 50	258 124 (NA)	789 319 (NA)	15 5 (NA)	55 29 13	48 23 13	746 496 542	4 5 6
3,087 884 1,291	570 346 606	928 314 354	775 154 180	393 166 127	607 62 121	904 (NA) 356	42 (NA) 12	188 35 (NA)	515 167 (NA)	82 31 (NA)	87 27 15	90 25 14	333 140 307	7 8 9
1,920 309	215 137	(D) 396	468 59	305 26	1,829 38	604 (NA)	15 (NA)	81 15	392 63	154 40	36 7	63 20	369 81	10 11
9,783	(NA)	7,359				(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	12
5,670 3,366 3,758 5,367	928 499 841 842	1,983 622 1,494 1,417	639 115 525 398	305 130 245 55	1,686 143 20 126	1,292 (NA) 459 (NA)	79 (NA) 94 265	184 34 (NA) (NA)	925 112 (NA) (NA)	139 41 (NA) (NA)	101 32 32 21	56 9 8 4	300 127 944 (NA)	13 14 15 16
1,381 438 853 541	363 308 303 94	840 374 425 338	538 164 385 294	218 95 62 6	223 72 351 9	539 (NA) 98 (NA)	... (NA) 90 24	84 17 (NA) (NA)	413 61 (NA) (NA)	28 7 (NA) (NA)	23 15 8 3	46 26 8 3	296 185 411 (NA)	17 18 19 20
8,174	(NA)	8,352				(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	21
8,115 1,830	1,828 637	4,576 896	1,524 530	857 241	1,362 135	2,610 (NA)	109 (NA)	1,449 203	2,733 958	... 59	97 33	34 10	1,134 750	22 23
1,523 383 527 264	199 113 203 53	1,400 81 239 98	238 28 21 21	302 8 62 12	365 5 14 12	294 (NA) 28 (NA)	36 (NA) 32 13	94 7 (NA) (NA)	259 37 (NA) (NA)	19 2 (NA) (NA)	30 6 7 2	52 11 11 5	102 6 25 (NA)	24 25 26 27
469 300 466 652	70 24 88 95	212 80 252 301	32 5 231 258	39 11 57 38	... 11 56 51	17 (NA) 44 (NA)	... (NA) 24 11	... 1 (NA) (NA)	17 38 (NA) (NA)	... 1 (NA) (NA)	14 2 3 3	115 8 9 6	16 2 247 (NA)	28 29 30 31
11,474	(NA)	10,620				(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	32
3,412 2,861	411 125	(D) 647	1,212 392	389 219	1,190 99	1,161 (NA)	48 (NA)	699 41	970 164	135 86	60 63	57 21	1,126 425	33 34
932 346	229 133	(D) 149	192 50	76 21	188 ...	123 (NA)	11 (NA)	263 30	103 51	21 7	14 5	57 14	89 109	35 36
3,451 597 648 769	423 155 186 110	2,251 246 155 219	327 94 58 50	552 52 76 19	850 21 24 10	1,250 (NA) 154 (NA)	24 (NA) 12 21	78 31 (NA) (NA)	853 57 (NA) (NA)	57 39 (NA) (NA)	68 10 6 3	65 13 7 3	269 56 84 50	37 38 39 40
3,451 1,134 1,112 1,196	1,415 228 290 295	2,195 506 626 634	495 118 153 163	513 61 24 ...	804 57 17 146	561 (NA) 140 (NA)	140 (NA) 157 393	145 106 (NA) (NA)	429 429 (NA) (NA)	35 27 (NA) (NA)	49 21 7 7	49 16 6 6	380 358 387 328	41 42 43 44
23,028 3,445	10,411 1,311	(D) 2,036	5,594 1,425	1,641 198	1,646 42	8,390 (NA)	525 (NA)	1,599 377	6,866 675	66 16	195 61	41 30	5,812 2,231	45 46
17,089 2,871 3,304 3,901	4,440 858 778 761	11,917 1,503 1,543 2,162	3,348 826 891 1,740	5,507 931 1,092 79	2,904 23 21 164	8,156 (NA) 805 (NA)	1,083 (NA) 190 353	2,484 109 (NA) (NA)	7,662 425 (NA) (NA)	109 46 (NA) (NA)	357 113 104 50	78 33 33 11	2,990 1,513 1,648 2,296	47 48 49 50

Table 4.—COMPARATIVE STATISTICS FOR MINERAL OPERATIONS IN THE
(For explanation of column captions and for statement on the minimum

	Major industry group, industry, and year	Number of operating companies	Number of mines, quarries, and wells	Number of preparation plants	Value of ship-ments ¹ (\$1,000)	Value added in mining (\$1,000)	Number of persons engaged				Man-hours worked by pro-duction and development workers (1,000)
							Produc-tion and develop-ment workers	All other employees	Proprietors and firm members		
									Total	Per-forming manual labor	
1	Rock salt:										
2	1954.....	11	15	13	35,658	30,013	1,659	266	3	1	3,861
	1939.....	17	17	17	6,896	5,721	1,380	181	4	4	2,608
3	Sulfur:										
4	1954.....	12	16	5	140,685	124,166	3,077	1,018	...	...	6,229
5	1939.....	8	10	2	31,812	28,863	1,517	507	1	1	3,031
6	1929.....	(NA)	10	(NA)	37,126	29,302	2,199	305	1	(NA)	(NA)
	1919.....	(NA)	4	1	17,936	13,720	1,129	144	...	...	(NA)
7	Chemical and fertilizer mineral mining, n.e.c.:										
8	1954.....	36	24	29	21,780	18,074	1,209	233	15	7	2,424
9	1939 ¹⁰	8	7	4	602	458	189	15	5	1	348
	1919 ⁹	(NA)	42	23	2,890	1,850	1,357	121	13	4	(NA)
10	Nonmetallic minerals (except fuels) contract services:										
11	1954.....	62	xxx	xxx	6,571	4,884	614	25	67	26	1,258
	1939.....	65	xxx	xxx	966	725	307	28	68	27	632
12	Gypsum:										
	1954: Including operations classified in manufactures.....	38	61	22	31,861	27,642	1,428	(NA)	(NA)	(NA)	2,984
13	Classified in mineral industries only.....	34	34	22	6,631	5,352	399	50	21	7	926
14	1939.....	34	59	25	4,569	3,756	1,327	97	7	...	2,466
15	1929.....	(NA)	63	(NA)	5,740	4,516	2,078	134	2	(NA)	(NA)
16	1919.....	(NA)	48	27	6,806	4,612	2,191	282	4	3	(NA)
17	Mica:										
18	1954.....	446	510	444	4,126	3,284	668	42	549	432	1,196
19	1939.....	22	21	10	327	276	190	20	11	7	361
20	1929.....	(NA)	32	(NA)	516	415	226	23	1	(NA)	(NA)
	1919.....	(NA)	69	9	607	469	448	40	67	27	(NA)
21	Native asphalt and bitumens:										
22	1954.....	9	12	8	6,424	4,857	451	100	12	3	987
23	1939.....	23	23	15	2,968	2,554	730	123	7	1	1,330
24	1929.....	(NA)	25	(NA)	5,124	4,345	1,123	183	1	(NA)	(NA)
	1919.....	(NA)	12	...	750	343	324	63	...	...	(NA)
25	Pumice and pumicite:										
26	1954.....	73	75	47	3,393	2,741	223	44	59	35	440
	1939.....	15	17	14	387	301	122	5	12	5	197
27	Talc, soapstone, and pyrophyllite:										
28	1954.....	54	75	39	11,819	9,486	1,297	174	30	14	2,778
29	1939.....	29	38	26	3,269	2,441	970	167	17	10	2,068
30	1929.....	(NA)	28	(NA)	2,688	2,012	550	82	...	...	(NA)
	1919.....	(NA)	30	23	2,302	1,749	958	103	8	2	(NA)
31	Peat:										
32	1954.....	86	87	68	2,326	1,800	321	32	69	42	637
	1939.....	23	25	23	378	338	157	27	11	4	246
33	Vermiculite and Nonmetallic minerals, n.e.c.:										
34	1954.....	63	75	57	24,860	17,437	1,374	394	33	14	2,703
35	1939.....	38	37	30	3,041	2,153	630	104	16	5	1,395
36	1929 ¹⁰	(NA)	12	(NA)	397	319	195	16	...	...	(NA)
	1919.....	(NA)	35	19	1,119	685	565	82	11	3	(NA)

D Withheld to avoid approximately disclosing figures for individual companies. NA Not available. xxx Not applicable. ¹See table 1, footnote 5. ²See table 1, footnote 7. ³See table 2, footnote 3. ⁴See table 2, footnote 6. ⁵See table 2, footnote 4. ⁶Represents figures for the Crude petroleum, Natural gas, and Natural gas liquids industries only. ⁷Figures for fuels, electric energy, and contract work for crushed stone, clay, and gypsum operations classified in manufactures are included with figures for supplies. ⁸Excludes figures for crushed stone, clay, and gypsum operations classified in manufactures. ⁹Except for number of mines for 1939 excludes data for 2 Lithium minerals mines; for 1919, excludes data for 1 Pyrite establishment. ¹⁰Except for number of mines, excludes data for 1 nonproducing establishment in the Asbestos industry.

UNITED STATES, BY INDUSTRY: 1954, 1939, 1929, and 1919

size of establishments included for each year, see Introduction)

Principal expenses designated below (\$1,000)						Purchased machinery installed (\$1,000)	Capital expenditures (\$1,000)				Horsepower rating of power equipment		Energy used (million kwh equiva- lent)	
Wages and salaries		Supplies	Fuel ²	Pur- chased electric energy	Contract work		Develop- ment and explora- tion of mineral property	Prepa- ration plant and other con- struction	New machinery and equipment	Used plant and equipment	Aggregate horse- power (1,000)	Horse- power per produc- tion worker		
Production and development workers	All other employees													
7,117 1,434	1,454 540	5,351 868	335 153	367 151	244 3	1,534 (NA)	53 (NA)	873 149	1,259 143	1 69	48 23	29 17	549 336	1 2
14,619 2,545 3,483 1,682	6,567 1,911 955 413	14,055 1,690 3,340 1,452	5,629 1,128 4,433 2,764	44 15 41 ...	2,833 116 10 ...	2,803 (NA) 1,634 (NA)	3,069 (NA) 325 56	3,110 (NA) (NA) (NA)	2,635 252 (NA) (NA)	31 44 (NA) (NA)	159 45 34 15	52 30 15 14	12,854 4,129 7,318 1,858	3 4 5 6
4,569 204 1,559	1,357 37 225	(D) 95 699	193 7 191	394 34 62	439 8 88	3,360 (NA) (NA)	258 (NA) 151	1,372 3 (NA)	2,795 15 (NA)	30 ... (NA)	53 3 9	44 13 7	223 6 288	7 8 9
2,214 320	113 48	1,088 124	354 113	11 4	213 (NA)	402 (NA)	xxx xxx	19 (NA)	306 (NA)	56 (NA)	39 18	63 59	96 (NA)	10 11
5,572	(NA)	924	3,323			(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	12
1,567 1,640 2,628 2,478	285 217 307 555	(D) 624 795 1,530	171 37 137 516	140 146 285 144	72 6 7 4	2,395 (NA) 578 (NA)	13 (NA) 127 12	48 27 (NA) (NA)	402 254 (NA) (NA)	1,960 22 (NA) (NA)	28 29 26 15	71 22 13 7	85 29 172 706	13 14 15 16
1,255 118 195 288	87 20 58 47	564 25 65 108	151 10 18 21	132 16 18 2	347 7	474 (NA) 6 (NA)	255 (NA) 14 65	188 1 (NA) (NA)	321 6 (NA) (NA)	96 2 (NA) (NA)	17 2 2 1	(⁴) 9 8 2	58 6 20 28	17 18 19 20
1,443 608 1,255 295	704 284 586 136	1,251 317 518 376	137 68 138 25	85 28 39 ...	170 1 84 6	476 (NA) 182 (NA)	114 (NA) 39 377	24 26 (NA) (NA)	402 72 (NA) (NA)	12 17 182 (NA)	31 13 13 1	69 18 12 2	66 125 285 43	21 22 23 24
748 119	214 7	(D) 45	119 30	40 11	276 ...	298 (NA)	32 (NA)	98 4	99 9	186 4	26 2	115 20	56 19	25 26
4,141 807 615 835	799 382 217 215	1,671 619 531 345	238 45 29 109	467 162 99 46	412 2 17 53	486 (NA) 35 (NA)	300 (NA) 57 59	453 62 (NA) (NA)	407 65 (NA) (NA)	37 38 (NA) (NA)	36 12 11 7	28 12 19 7	133 53 59 108	27 28 29 30
829 101	111 43	321 21	174 15	31 4	46 ...	159 (NA)	34 (NA)	43 8	104 10	24 8	24 3	74 18	87 7	31 32
5,258 636 237 585	2,062 209 34	4,649 593 36 256	967 159 27 127	722 128 13	1,336 8 2 51	1,441 (NA) 89 (NA)	109 (NA) 93 47	820 (NA) (NA) (NA)	1,001 64 (NA) (NA)	27 4 (NA) (NA)	76 13 2 7	55 21 11 12	620 197 15 72	33 34 35 36

Table 5.—COMPARATIVE STATISTICS FOR MINERAL OPERATIONS IN THE UNITED STATES,

	Geographic division, State, and type of operation	Number of operating companies	Number of mines, quarries, and wells	Number of preparation plants	Value of shipments ¹ (\$1,000)	Value added in mining (\$1,000)	Number of persons engaged			
							Production and development workers	All other employees	Proprietors and firm members	
									Total	Performing manual labor
1	United States, total.....1954...	32,932	514,347	8,814	15,147,297	11,740,054	666,621	139,347	40,176	20,958
2	1939...	20,658	361,202	5,450	3,413,954	2,765,396	774,130	82,259	16,040	7,068
3	New England.....1954...	409	460	313	59,559	46,786	5,232	756	251	148
4	1939...	³ 291	332	192	17,814	14,415	4,272	672	147	70
5	Maine.....1954...	73	76	38	5,242	4,304	653	46	48	33
6	1939...	33	34	11	1,279	1,134	379	41	19	10
7	New Hampshire.....1954...	39	44	31	2,510	1,914	285	34	29	18
8	1939...	24	25	13	903	777	266	41	9	5
9	Vermont.....1954...	56	64	45	20,415	15,512	1,881	169	43	31
10	1939...	60	77	21	6,243	5,030	1,574	121	40	23
11	Massachusetts.....1954...	131	149	111	18,866	14,719	1,626	298	72	31
12	1939...	102	112	87	5,599	4,610	1,206	362	49	24
13	Rhode Island.....1954...	21	21	15	1,447	1,109	140	23	10	10
14	1939...	20	21	16	828	623	212	36	11	4
15	Connecticut.....1954...	96	106	73	11,079	9,228	647	186	49	25
16	1939...	52	63	44	2,962	2,241	635	71	19	4
17	Middle Atlantic.....1954...	4,907	87,345	1,012	1,268,938	797,722	108,461	15,860	6,877	4,217
18	1939...	³ 3,244	82,932	988	529,164	427,921	203,871	15,610	2,992	1,419
19	New York.....1954...	623	17,286	268	138,508	104,719	8,469	3,895	805	301
20	1939...	455	15,015	217	41,152	32,739	7,044	1,693	426	135
21	New Jersey.....1954...	128	162	122	51,455	38,965	3,543	647	60	33
22	1939...	117	137	108	14,124	11,103	3,369	609	32	16
23	Pennsylvania.....1954...	4,181	69,895	617	1,078,975	654,038	96,449	11,318	6,012	3,883
24	1939...	2,672	67,780	663	473,888	384,079	193,458	13,308	2,534	1,268
25	East North Central...1954...	4,480	50,250	1,565	1,142,879	852,741	73,815	12,436	4,979	2,356
26	1939...	³ 3,617	39,545	1,008	402,287	316,909	98,084	9,896	3,017	1,575
27	Ohio.....1954...	1,639	14,709	417	249,145	184,097	19,510	4,232	1,927	945
28	1939...	1,239	16,113	336	64,230	51,914	24,948	2,395	1,152	723
29	Indiana.....1954...	749	4,274	282	145,816	98,331	9,576	1,463	705	339
30	1939...	527	2,340	153	37,387	28,094	11,398	998	414	237
31	Illinois.....1954...	1,266	26,423	397	496,815	378,595	26,964	3,530	1,482	624
32	1939...	1,166	17,764	287	211,654	165,538	44,422	4,465	1,005	508
33	Michigan.....1954...	524	4,523	212	199,440	153,036	13,991	2,702	551	265
34	1939...	554	3,175	106	80,604	64,933	15,223	1,809	372	73
35	Wisconsin.....1954...	302	321	257	51,663	38,682	3,774	509	314	183
36	1939...	131	153	126	8,412	6,460	2,093	229	74	34
37	West North Central...1954...	³ 3,008	41,077	1,195	1,043,418	813,247	45,589	8,574	3,347	1,527
38	1939...	² 2,007	21,827	536	253,332	214,098	39,737	5,245	1,610	801
39	Minnesota.....1954...	200	363	222	350,424	293,990	14,499	3,257	196	83
40	1939...	120	178	87	98,936	91,572	6,866	1,279	65	32
41	Iowa.....1954...	314	367	228	39,177	27,316	2,677	297	340	202
42	1939...	368	383	91	10,844	8,963	5,589	339	343	224
43	Missouri.....1954...	437	558	282	92,869	68,571	7,548	1,306	412	244
44	1939...	420	588	158	27,372	21,036	9,320	1,541	297	169
45	North Dakota.....1954...	138	556	29	28,694	7,151	1,399	399	66	29
46	1939...	105	106	4	2,503	2,027	874	86	118	97
47	South Dakota.....1954...	179	181	97	32,454	23,333	2,606	395	181	129
48	1939...	60	58	24	22,882	20,689	2,647	275	28	20
49	Nebraska.....1954...	235	731	139	38,400	30,082	1,531	203	213	113
50	1939...	40	64	47	1,351	930	470	61	36	12
51	Kansas.....1954...	1,647	38,321	198	461,400	362,804	15,329	2,717	1,939	727
52	1939...	894	20,450	125	89,444	68,881	13,971	1,664	723	247
53	South Atlantic.....1954...	3,835	27,026	1,289	1,144,729	782,793	101,328	10,520	4,516	2,291
54	1939...	³ 1,760	27,713	644	295,021	244,732	134,746	7,152	1,132	498
55	Delaware, Maryland and the District of Columbia.....1954...	193	233	73	27,145	20,572	1,944	227	181	106
56	1939...	156	180	65	8,707	7,243	3,599	251	120	69
57	Virginia.....1954...	743	820	149	145,592	96,014	15,123	1,741	911	613
58	1939...	223	256	113	34,625	28,642	19,010	1,051	94	51
59	West Virginia.....1954...	2,070	24,946	305	739,381	515,807	68,698	6,375	2,584	1,037
60	1939...	1,095	36,933	239	224,266	187,548	102,302	4,958	802	336
61	North Carolina.....1954...	457	567	450	42,811	33,143	3,784	263	547	398
62	1939...	85	111	60	4,537	3,448	1,787	178	32	14
63	South Carolina.....1954...	64	77	48	14,184	11,229	1,372	146	38	24
64	1939...	34	44	23	3,457	2,389	1,291	97	12	4
65	Georgia.....1954...	192	207	138	49,066	37,326	4,782	504	151	77
66	1939...	96	106	61	8,198	5,864	3,674	232	44	18
67	Florida.....1954...	166	176	126	126,550	68,707	5,625	1,264	104	36
68	1939...	71	83	83	11,231	9,598	3,083	385	28	6

See footnotes at end of table.

BY GEOGRAPHIC DIVISIONS AND STATES: 1954 AND 1939

Man-hours worked by production and development workers (1,000)	Principal expenses designated below (\$1,000)						Selected capital expenditures (\$1,000)			Horsepower rating of power equipment		Energy used (million kwh equivalent)	
	Wages and salaries		Supplies	Fuel ²	Purchased electric energy	Contract work	Prepara- tion plant and other construc- tion	New machinery and equipment	Used plant and equipment	Aggregate horse- power (1,000)	Horse- power per production worker		
	Production and de- velopment workers	All other employees											
1,288,461	2,639,378	817,601	2,023,377	206,491	161,083	1,827,372	313,905	992,399	110,285	40,879	61	373,126	1
1,287,852	970,546	204,225	307,980	60,965	69,245	210,368	27,435	241,135	21,962	14,160	18	225,411	2
11,149	18,950	4,192	8,617	1,723	1,520	1,361	1,093	2,665	632	286	55	638	3
8,659	4,863	1,740	1,986	638	738	37	165	547	128	143	33	404	4
1,330	2,060	208	636	29	83	91	86	253	83	21	32	46	5
659	376	72	83	27	33	2	(NA)	9	2	11	29	16	6
574	918	190	395	99	70	66	74	156	6	15	53	29	7
535	266	87	63	44	19	...	2	72	1	7	25	18	8
4,009	6,524	921	3,281	444	642	589	134	606	43	64	34	209	9
3,148	1,719	297	842	92	273	6	37	83	9	32	20	93	10
3,382	6,291	1,783	2,719	557	408	292	260	1,111	353	102	63	185	11
2,512	1,486	1,042	433	294	256	6	64	237	85	58	48	157	12
274	461	104	232	106	34	21	37	77	55	19	136	26	13
435	262	61	129	44	30	2	13	34	...	7	33	25	14
1,580	2,696	986	1,354	388	283	302	502	462	92	65	100	143	15
1,370	754	181	436	137	127	21	49	112	31	28	44	95	16
184,141	404,916	92,117	148,637	19,884	29,895	102,367	14,702	36,506	10,419	5,015	46	19,524	17
317,732	259,280	38,222	56,939	10,233	16,214	17,539	4,184	15,375	1,663	2,772	14	30,072	18
18,612	38,544	27,766	20,499	4,383	3,790	5,028	2,680	5,982	2,663	687	81	3,432	19
14,682	9,696	5,734	4,129	1,480	1,373	1,431	407	2,156	300	285	40	1,700	20
7,948	15,172	3,597	7,986	1,720	1,595	1,283	959	2,040	184	208	59	699	21
6,451	4,314	1,612	1,720	570	636	95	163	417	61	91	27	652	22
157,581	351,200	60,754	120,152	13,781	24,510	96,056	11,063	28,484	7,572	4,120	43	15,393	23
296,599	245,270	30,876	51,090	8,183	14,205	16,013	3,614	12,802	1,302	2,396	12	27,720	24
141,163	297,258	70,318	163,828	22,129	24,087	81,202	30,288	75,916	9,925	4,324	57	16,633	25
161,491	119,026	23,158	38,823	7,875	9,906	28,744	3,913	26,552	2,782	1,953	20	17,935	26
37,247	74,881	23,958	37,178	6,133	4,692	11,249	3,073	13,808	3,024	1,052	54	2,790	27
41,312	28,749	5,103	7,055	1,737	2,051	1,473	483	3,248	869	367	15	2,715	28
17,863	36,443	8,669	19,708	2,636	3,407	6,589	1,697	10,442	1,146	572	60	1,506	29
18,542	13,671	2,183	5,636	842	1,477	1,338	443	1,513	370	239	21	1,888	30
49,370	108,516	19,673	64,137	6,470	9,962	41,728	11,531	27,400	3,960	1,429	53	7,909	31
68,509	54,325	11,093	17,588	2,338	3,784	22,406	2,545	18,085	744	839	19	8,569	32
28,762	62,160	15,182	33,078	4,950	4,581	20,116	11,778	20,660	1,059	942	67	3,705	33
28,951	19,677	4,266	7,466	2,593	2,103	3,509	415	3,372	720	435	29	4,525	34
7,921	15,258	2,836	9,727	1,940	1,445	1,520	2,209	3,606	736	329	87	723	35
4,177	2,604	513	1,078	365	491	18	27	334	79	73	35	238	36
92,437	176,690	46,565	141,775	24,672	16,018	131,039	36,157	88,655	8,642	3,671	81	18,697	37
70,332	46,733	12,672	17,043	4,066	5,189	12,936	1,678	11,195	1,731	1,125	28	7,324	38
27,923	58,942	19,502	45,584	6,579	6,785	30,771	25,922	20,049	516	1,240	86	2,713	39
13,215	9,987	3,398	4,089	1,588	1,581	106	368	1,220	178	318	46	1,715	40
6,049	9,295	1,210	8,033	1,847	515	1,526	417	2,604	641	284	106	682	41
8,595	5,489	570	1,153	312	362	54	49	225	87	66	12	201	42
15,419	27,621	6,869	13,059	2,261	3,356	2,869	1,247	2,893	721	494	65	1,260	43
16,529	8,968	3,698	3,905	549	1,623	259	146	371	272	224	24	786	44
2,956	6,319	2,300	7,899	1,320	281	20,305	3,271	13,048	658	107	76	745	45
1,724	871	171	274	73	124	5	16	36	20	15	17	180	46
5,872	10,321	1,933	6,218	1,132	430	2,273	692	1,445	280	133	51	766	47
5,988	4,690	852	1,716	284	172	21	352	695	43	46	17	557	48
3,450	6,062	898	6,024	1,319	218	8,659	567	7,732	763	158	103	692	49
1,041	365	86	183	89	76	73	15	76	11	16	34	56	50
30,768	58,130	13,853	54,958	10,214	4,433	64,636	4,041	40,884	5,063	1,255	82	11,839	51
23,240	16,363	3,897	5,723	1,171	1,251	12,418	732	8,572	1,120	440	31	3,829	52
181,592	374,640	54,934	201,596	14,967	27,340	39,332	28,483	52,187	6,792	3,294	33	12,954	53
211,365	157,882	15,329	34,565	4,215	10,224	2,741	1,730	11,736	1,024	1,334	10	8,876	54
4,374	6,604	995	4,060	1,116	378	736	214	1,260	135	124	64	436	55
6,090	3,417	520	877	312	216	59	81	603	20	42	12	388	56
26,508	47,156	7,908	33,115	1,875	2,973	4,502	2,216	5,400	1,143	411	27	1,399	57
28,998	18,888	2,054	4,187	424	1,328	44	198	1,046	128	146	8	701	58
115,644	274,014	34,731	131,210	4,457	14,996	26,772	16,942	29,594	3,889	1,946	28	5,885	59
156,344	128,978	10,849	25,370	1,802	7,147	2,400	1,031	8,549	682	934	9	5,662	60
8,337	10,303	1,339	6,926	1,076	960	890	1,007	2,093	144	136	36	513	61
3,720	1,123	320	709	181	192	7	8	124	36	26	15	176	62
3,102	3,591	765	2,363	608	460	168	699	452	713	86	63	288	63
2,756	782	282	698	135	177	58	26	140	22	20	15	133	64
10,490	13,016	2,726	8,944	1,830	1,386	1,311	2,039	3,918	485	176	37	1,339	65
7,440	2,279	529	1,269	587	348	130	240	997	82	49	13	770	66
13,137	19,956	6,470	14,978	4,005	6,187	4,953	5,366	9,470	283	415	74	3,094	67
6,017	2,415	775	1,455	774	816	43	146	277	54	117	38	1,046	68

Table 5.--COMPARATIVE STATISTICS FOR MINERAL OPERATIONS IN THE UNITED STATES,

	Geographic division, State, and type of operations	Number of operating companies	Number of mines, quarries, and wells	Number of preparation plants	Value of shipments ¹ (\$1,000)	Value added in mining (\$1,000)	Number of persons engaged			
							Production and development workers	All other employees	Proprietors and firm members	
									Total	Performing manual labor
1	East South Central...1954...	2,928	21,791	558	721,230	533,168	61,988	6,091	3,567	2,252
2	1939...	2,228	11,211	357	158,481	130,532	89,522	4,427	760	443
3	Kentucky.....1954...	1,735	18,690	205	366,082	272,203	35,842	3,075	2,360	1,472
4	1939...	660	10,481	126	91,806	77,169	51,452	2,387	383	200
5	Tennessee.....1954...	635	702	160	88,267	65,241	9,416	765	699	504
6	1939...	220	297	88	22,684	18,435	11,723	739	116	69
7	Alabama.....1954...	351	474	156	145,888	110,860	13,602	1,534	355	219
8	1939...	290	341	106	41,852	33,849	25,758	1,195	240	168
9	Mississippi.....1954...	207	1,925	37	120,993	94,855	3,128	717	153	57
10	1939...	58	92	37	2,139	1,079	589	106	21	6
11	West South Central...1954...	8,233	227,597	808	6,416,352	5,224,592	166,957	58,476	9,734	3,907
12	1939...	3,637	150,079	622	1,015,269	809,276	98,687	24,252	3,821	786
13	Arkansas.....1954...	395	3,823	71	138,879	110,107	5,206	925	402	170
14	1939...	286	3,127	52	31,348	22,150	6,926	551	171	61
15	Louisiana.....1954...	837	17,585	115	1,195,573	984,976	29,575	7,634	724	278
16	1939...	531	6,569	62	133,828	92,879	12,244	2,232	263	47
17	Oklahoma.....1954...	2,488	59,137	185	758,124	586,635	30,534	10,566	2,668	1,095
18	1939...	1,443	50,619	223	208,713	173,015	26,188	7,124	984	267
19	Texas.....1954...	4,966	147,052	437	4,323,776	3,542,874	101,642	39,351	5,940	2,364
20	1939...	3,377	89,764	285	641,380	521,232	53,329	14,345	2,403	411
21	Mountain.....1954...	3,911	24,404	916	1,778,268	1,313,850	69,114	15,952	4,124	2,644
22	1939...	2,159	9,746	462	361,243	283,834	66,711	7,385	1,364	915
23	Montana.....1954...	544	4,697	104	148,747	83,942	8,936	2,669	562	325
24	1939...	474	2,363	70	44,701	34,865	10,291	1,308	362	226
25	Idaho.....1954...	223	250	150	52,083	38,737	4,135	646	154	111
26	1939...	108	111	49	23,389	18,952	4,654	395	59	41
27	Wyoming.....1954...	446	5,981	58	313,659	258,503	7,491	2,254	323	160
28	1939...	162	2,762	17	38,871	6,679	6,204	644	82	52
29	Colorado.....1954...	941	2,533	182	262,214	207,541	10,977	2,713	1,024	649
30	1939...	510	767	109	52,291	41,875	13,469	1,331	349	267
31	New Mexico.....1954...	646	9,434	66	403,306	338,096	11,545	2,389	560	295
32	1939...	277	3,081	30	59,160	44,683	8,065	856	161	63
33	Arizona.....1954...	455	507	120	219,031	179,001	11,073	2,217	556	434
34	1939...	178	179	59	54,230	40,560	9,400	989	122	91
35	Utah.....1954...	499	577	85	275,157	153,235	10,298	2,387	452	266
36	1939...	173	198	38	63,037	51,550	9,529	1,303	67	47
37	Nevada.....1954...	409	425	151	104,071	54,795	4,659	677	493	404
38	1939...	277	285	90	25,564	18,670	5,099	559	162	128
39	Pacific.....1954...	2,508	34,456	1,189	1,566,056	1,367,855	34,137	10,682	2,780	1,632
40	1939...	2,079	17,730	638	400,422	333,283	38,764	7,635	1,230	573
41	Washington.....1954...	263	299	191	34,998	25,182	2,647	581	219	140
42	1939...	157	174	79	13,694	11,075	3,894	354	114	74
43	Oregon.....1954...	279	278	218	18,872	13,168	1,331	156	297	186
44	1939...	119	128	81	5,120	3,807	1,309	167	70	35
45	California.....1954...	1,991	33,879	780	1,512,186	1,329,505	30,159	9,945	2,264	1,306
46	1939...	1,803	17,428	478	381,608	318,401	33,561	7,114	1,046	464

¹See table 1, footnote 5. The United States total shown is not equal to the sum of the detail by area since the estimated value of minerals produced and used in the same establishment was based on a rough industry average for the United States total, but for individual States reflects market values in the specified State.

GENERAL SUMMARY

A-25

BY GEOGRAPHIC DIVISIONS AND STATES: 1954 AND 1939—Continued

Man-hours worked by production and development workers (1,000)	Principal expenses designated below (\$1,000)						Selected capital expenditures (\$1,000)			Horsepower rating of power equipment		Energy used (million kwh equivalent)	
	Wages and salaries		Supplies	Fuel ²	Purchased electric energy	Contract work	Prepara- tion plant and other construc- tion	New machinery and equipment	Used plant and equipment	Aggregate horse- power (1,000)	Horse- power per production worker		
	Production and de- velopment workers	All other employees											
107,058	210,951	33,464	110,194	8,981	12,504	41,500	10,848	29,029	5,591	1,987	32	9,867	1
² 134,469	86,990	9,033	18,952	2,031	4,947	2,020	1,365	5,815	619	737	8	5,003	2
59,702	124,206	15,164	56,228	3,459	6,475	14,905	5,011	14,294	2,696	943	26	3,514	3
73,891	52,338	4,633	10,217	771	2,565	1,084	564	2,431	359	332	6	2,383	4
17,412	28,044	3,993	15,956	2,202	1,436	3,741	1,416	2,844	981	363	39	1,122	5
19,578	10,459	1,486	2,602	590	968	89	223	935	72	137	12	1,421	6
23,526	46,947	10,370	21,777	1,582	4,203	3,768	1,822	4,671	1,045	429	32	1,261	7
39,827	23,764	2,685	5,859	501	1,342	301	560	2,205	133	254	10	1,015	8
6,418	11,754	3,937	16,233	1,738	390	19,086	2,599	7,220	869	252	81	3,970	9
1,173	429	229	274	169	72	546	18	244	55	14	24	184	10
361,436	693,048	356,174	839,553	71,680	21,079	1,029,511	109,049	537,948	45,916	13,843	83	217,320	11
176,345	137,938	65,294	61,051	17,062	4,932	122,948	6,172	117,489	9,016	3,231	33	106,337	12
10,425	17,995	4,982	17,394	1,645	1,347	12,855	1,017	5,920	1,371	359	69	3,859	13
10,737	7,446	1,288	2,792	874	374	5,158	149	3,779	381	142	20	3,306	14
65,982	132,855	46,634	215,291	13,860	1,745	260,574	33,418	125,717	5,934	2,354	80	43,447	15
22,496	18,351	6,024	10,474	3,367	447	26,661	917	22,986	515	340	28	16,448	16
61,532	115,830	61,793	109,077	9,805	4,818	155,980	13,488	87,132	5,615	2,301	75	31,291	17
46,857	33,892	18,656	15,689	4,349	1,871	13,789	1,028	8,228	3,398	1,027	39	23,132	18
223,497	426,368	242,765	497,791	46,370	13,169	600,102	61,126	319,179	32,996	8,829	87	138,723	19
96,255	78,249	39,326	32,096	8,472	2,240	77,340	4,078	82,496	4,722	1,722	32	63,451	20
141,253	303,088	91,903	270,733	26,332	17,120	256,407	64,475	105,900	16,290	4,711	68	38,379	21
129,846	93,717	18,034	47,093	6,643	10,431	13,242	4,282	15,704	3,049	1,472	22	18,846	22
17,478	36,979	14,785	21,649	2,270	2,231	24,074	3,691	7,946	5,875	538	60	2,525	23
19,862	14,701	3,021	6,940	514	1,799	583	393	1,995	334	230	22	1,237	24
8,651	18,711	3,694	9,212	906	1,380	1,787	762	2,435	389	223	54	527	25
9,753	7,086	1,060	3,275	246	814	102	143	639	132	83	18	233	26
14,641	32,508	13,339	38,258	3,959	1,534	56,146	5,312	23,803	1,656	682	91	9,543	27
10,189	8,765	1,677	2,206	388	422	3,176	99	1,957	148	129	21	1,856	28
21,317	44,381	15,618	42,811	4,307	3,125	40,815	8,218	18,814	2,145	702	64	4,873	29
23,356	16,845	2,978	7,134	854	1,827	601	465	1,503	272	201	15	2,113	30
23,599	51,274	14,510	61,571	4,500	1,816	72,572	15,273	36,701	2,779	825	71	12,384	31
14,817	10,605	2,115	5,243	1,393	319	7,522	984	5,307	344	166	21	9,234	32
25,286	54,081	12,695	41,835	4,275	2,638	30,428	27,351	7,022	1,610	889	80	3,747	33
22,059	14,561	2,505	10,457	2,024	1,059	130	809	1,707	1,462	282	30	2,372	34
19,903	43,260	13,360	33,327	3,863	2,391	16,565	2,647	6,577	1,138	498	48	3,851	35
18,466	13,274	3,340	7,650	574	3,001	262	552	1,344	131	275	29	1,346	36
10,378	21,894	3,902	22,070	2,252	2,005	14,020	1,221	2,602	698	354	76	929	37
11,344	7,880	1,338	4,188	650	1,190	866	837	1,252	226	106	21	455	38
68,232	159,471	67,960	151,945	16,372	11,514	144,706	18,811	63,588	6,074	3,746	110	39,102	39
77,826	64,350	20,755	31,507	8,188	6,662	20,782	3,938	36,720	1,973	1,484	38	29,396	40
4,912	11,403	3,378	6,679	948	680	1,740	489	1,448	445	400	151	404	41
6,608	5,376	827	1,923	250	381	65	194	343	60	78	20	251	42
2,690	5,718	828	3,448	947	291	1,899	1,582	1,076	774	141	106	349	43
2,672	1,627	328	877	258	163	15	87	185	50	33	25	143	44
60,630	142,350	63,754	141,818	14,477	10,543	141,067	16,740	61,064	4,855	3,205	106	38,349	45
68,546	57,347	19,600	28,707	7,680	6,118	20,702	3,657	36,192	1,863	1,373	41	29,002	46

²See table 1, footnote 7.³Represents the sum of the number of operating companies in individual States. Hence, includes some duplication due to the same company operating in more than one State.

Table 6.—VALUE OF SHIPMENTS OF PRIMARY PRODUCTS OF THE MINERAL INDUSTRIES PRODUCED IN ALL INDUSTRIES AND VALUE OF SECONDARY PRODUCTS AND SERVICES OF THE MINERAL INDUSTRIES IN THE UNITED STATES, BY INDUSTRY: 1954

(For explanation of column captions, see INTRODUCTION)

Code	Industry	Value of all products of the industry (\$1,000)	Value of primary products (\$1,000)				Value of secondary products and services (\$1,000)				
			Gross shipments by establishments in the specified industry	Net shipments ¹			Total	Secondary products	Receipts for contract services	Electric energy sold	Products purchased and resold without further processing
				Total	By establishments in the specified industry	By establishments in other industries ²					
10	Metal Mining:										
101	Iron ores.....	547,218	(D)	537,688	(D)	(D)	(D)	(D)	615	1,487	...
102	Copper ores.....	508,729	484,161	393,941	385,343	8,598	24,568	21,474	512	2,582	...
103	Lead and zinc ores.....	175,947	172,602	138,617	136,787	1,830	3,345	2,928	395	22	...
104	Gold and silver ores:										
1042	Lode gold.....	28,517	28,507	27,447	26,882	565	10	(D)	(D)	...	...
1043	Placer gold.....	5,916	5,898	5,965	5,898	67	18	(D)	(D)	(D)	...
1044	Silver ores.....	12,148	(D)	11,956	(D)	(D)	(D)	(D)	(D)	...	...
105	Bauxite.....	16,819	16,736	15,946	15,946	...	83	57	26	...	...
	Ferro-alloy ores, except vanadium:										
106	Manganese ores.....	32,398	31,298	31,537	31,298	239	1,100	(D)	(D)	...	...
1064	Tungsten ores.....	60,737	60,222	62,832	60,222	2,610	515	423	8	...	84
1063	Molybdenum ores and Ferro-alloy ores,										
1069	n.e.c.....	60,536	56,714	56,714	56,714	...	3,822	3,822	...	...	...
1081	Metal mining contract services ³	38,679	37,362	(NA)	(NA)	(NA)	1,317	...	1,177	...	140
109	Miscellaneous metal ores:										
1092	Mercury ores.....	4,519	4,519	(D)	(D)	...	...	...	...	...	...
1093	Titanium ores.....	12,750	8,647	(D)	(D)	...	4,103	4,103	...	...	...
1094	Uranium-radium-vanadium ores.....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1099	Metallic ores, n.e.c.....	1,325	1,289	1,289	1,289	...	36	36	...	...	...
11	Anthracite mining:										
1111	Anthracite.....	365,536	363,299	246,276	246,276	...	2,237	282	215	1,740	...
1112	Anthracite stripping contract services ³	42,048	42,048	(NA)	(NA)	(NA)	...	...	...	...	...
1113	Anthracite contract services, except stripping ³	847	847	(NA)	(NA)	(NA)	...	...	...	...	...
12	Bituminous coal and lignite mining:										
1211	Bituminous coal.....	2,040,200	62,035,794	1,774,983	1,773,930	1,053	4,406	866	1,260	2,280	(6)
1212	Lignite.....	10,387	10,330	10,330	10,330	...	57	33	24	...	...
1213	Bituminous coal and lignite mining contract services ³	17,596	417,596	(NA)	(NA)	(NA)	(4)	...	(D)	...	(D)
13	Crude petroleum and natural gas extraction:										
1312	Crude petroleum and Natural gas.....	7,070,097	7,035,108	7,095,624	7,035,108	30,516	34,989	36	34,713	205	35
1313	Natural gas liquids.....	640,422	634,384	576,828	576,828	...	6,038	1,308	4,578	152	...
1314	Oil and gas field contract services ³	1,631,020	1,506,501	(NA)	(NA)	(NA)	124,519	60,516	10,000	...	54,003
14	Nonmetallic minerals (except fuels) mining:										
141	Dimension stone:										
1412	Dimension limestone.....	3,754	3,170	7,255	3,170	4,085	584	222	6	...	356
1413	Dimension granite.....	5,738	5,649	10,385	5,649	4,736	89	(D)	...	...	(D)
1415	Dimension marble.....	3,491	3,421	3,869	3,421	448	70	70	...	...	...
1417	Dimension sandstone.....	5,292	5,036	6,129	5,036	1,093	256	50	35	...	171
1416	Dimension trap rock and Dimension										
1419	stone, n.e.c.....	670	651	780	651	129	19	(D)	(D)	...	(D)
142	Crushed and broken stone:										
1422	Crushed and broken limestone.....	328,757	310,967	328,434	5311,525	16,909	17,790	12,622	1,910	99	3,159
1423	Crushed and broken granite.....	30,875	30,016	31,766	530,476	1,290	859	610	...	6	243
1424	Crushed and broken slate.....	8,162	8,162	8,199	(D)	(D)	...	...	...	...	...
1425	Crushed and broken marble.....	5,142	4,545	5,039	54,586	453	597	497	...	...	100
1426	Crushed and broken trap rock.....	45,471	38,974	40,280	538,555	1,725	6,497	5,542	25	6	924
1427	Crushed and broken sandstone.....	31,190	28,351	28,697	(D)	(D)	2,839	2,382	36	...	421
1429	Crushed and broken stone, n.e.c.....	15,657	14,849	17,194	516,883	311	808	(D)	82	...	(D)
144	Sand and gravel.....	466,015	408,546	425,500	408,546	16,954	57,469	38,949	7,969	...	10,551
145	Clay, ceramic, and refractory minerals:										
1452	Bentonite.....	21,830	(D)	21,157	(D)	(D)	(D)	(D)	(D)	...	...
1453	Fire clay.....	22,206	20,808	21,643	20,648	995	1,398	(D)	287	(D)	(D)
1454	Fuller's earth.....	6,012	(D)	6,029	(D)	(D)	(D)	(D)	...	...	...
1455	Kaolin and ball clay.....	31,892	31,160	31,170	31,146	24	732	732	...	...	...
1456	Feldspar.....	6,669	6,254	7,478	5,824	1,654	415	415	...	...	...
1457	Magnesite and brucite.....	1,655	1,655	1,655	1,655	...	...	...	...	...	...
1459	Clay, ceramic, and refractory minerals, n.e.c.....	13,504	(D)	14,561	(D)	(D)	(D)	(D)	(D)	...	...

See footnotes at end of table.

Table 6.--VALUE OF SHIPMENTS OF PRIMARY PRODUCTS OF THE MINERAL INDUSTRIES PRODUCED IN ALL INDUSTRIES AND VALUE OF SECONDARY PRODUCTS AND SERVICES OF THE MINERAL INDUSTRIES IN THE UNITED STATES, BY INDUSTRY: 1954--Continued

(For explanation of column captions, see INTRODUCTION)

Code	Industry	Value of all products of the industry (\$1,000)	Value of primary products (\$1,000)			Value of secondary products and services (\$1,000)				
			Gross shipments by establishments in the specified industry	Net shipments ¹		Total	Secondary products	Receipts for contract services	Electric energy sold	Products purchased and resold without further processing
				Total	By establishments in the specified industry	By establishments in other industries ²				
14	Nonmetallic minerals (except fuels) mining--Continued									
146	Natural abrasives, except sand:									
1462	Abrasive stones, natural.....	326	324	415	324	91	2	2	...	...
1469	Natural abrasives, except sand, n.e.c.....	4,148	3,969	5,220	3,969	1,251	179	(D)	(D)	...
147	Chemical and fertilizer mineral mining:									
1472	Barite.....	18,269	(D)	18,298	(D)	(D)	(D)	(D)	(D)	(D)
1473	Fluorspar.....	15,461	14,502	12,774	12,774	...	959	(D)	(D)	(D)
1474	Potash, soda, and borate minerals....	107,757	105,452	104,070	(D)	(D)	2,305	(D)	(D)	(D)
1475	Phosphate rock.....	117,976	117,909	82,516	82,516	...	67	(D)	(D)	(D)
1476	Rock salt.....	35,658	30,769	32,962	30,769	2,193	4,889	4,812	...	77
1477	Sulfur.....	140,685	140,661	140,661	140,661	...	24	...	...	24
1479	Chemical and fertilizer mineral mining, n.e.c.....	21,780	(D)	20,448	(D)	(D)	(D)	(D)	(D)	(D)
1481	Nonmetallic minerals (except fuels) contract services ³	6,571	6,013	(NA)	(NA)	(NA)	558	...	288	...
149	Miscellaneous nonmetallic minerals (except fuels):									
1492	Gypsum.....	6,631	6,613	10,301	6,613	3,688	18	...	...	(D)
1493	Mica.....	4,126	4,083	7,938	4,083	3,855	43	43	...	...
1494	Native asphalt and bitumens.....	6,424	6,408	6,408	6,408	...	16	...	16	...
1495	Pumice and pumicite.....	3,393	3,324	3,489	3,324	165	69	(D)	...	(D)
1496	Talc, soapstone, and pyrophyllite....	11,819	11,819	14,595	11,819	2,776	...	...	...	...
1498	Peat.....	2,326	2,307	2,307	2,307	...	19	(D)	(D)	...
1497	Vermiculite and Nonmetallic									
1499	minerals, n.e.c.....	24,860	24,698	24,731	24,698	33	162	(D)	(D)	...

D Withheld to avoid approximately disclosing figures for individual companies.

NA Not available.

¹Net shipments, which are equal to gross shipments less cost of minerals received for preparation, are not available for all industries. Accordingly, wherever net shipments figures are available, they are shown in italics. Otherwise, figures represent gross shipments.²Represents other mineral industries, manufacturing industries, and wholesale trade industries.³Figures for "primary products" for this industry represent receipts for services classified as primary to this industry.⁴The value of secondary products and services is included with the value of primary services, for this industry.⁵Includes value of primary products of this industry shipped by establishments in other mineral industries.⁶Includes bituminous coal, sold for \$75,866 thousand, purchased by establishments in the Bituminous coal industry for resale without further processing. This value is included in the gross shipments of primary products.

SIZE OF ESTABLISHMENTS

B-1

Table 1.—NUMBER OF ESTABLISHMENTS IN THE MINERAL INDUSTRIES IN THE UNITED STATES CLASSIFIED BY EMPLOYMENT SIZE, BY INDUSTRY GROUPS: 1954

Industry group	Total, all estab- lish- ments	Establishments with an average of—										
		No em- ployees	1-4 em- ployees	5-9 em- ployees	10-19 em- ployees	20-49 em- ployees	50-99 em- ployees	100-249 em- ployees	250-499 em- ployees	500-999 em- ployees	1,000- 2,499 em- ployees	2,500 and over
All mineral industries, total.....	37,446	5,958	14,833	5,918	4,543	3,635	1,240	802	321	145	41	10
Metal mining, total.....	3,496	1,483	1,146	296	162	154	71	99	47	17	18	3
Iron ores.....	225	16	28	21	25	25	29	48	23	4	5	1
Copper ores.....	210	86	59	16	8	9	2	7	6	6	10	1
Lead and zinc ores.....	520	192	158	41	39	47	15	13	10	3	1	1
Gold and silver ores.....	535	275	189	36	14	7	5	7	...	1	1	...
Bauxite.....	25	1	8	4	6	4	...	...	2	...	...	...
Ferro-alloy ores, except vanadium.....	1,086	679	257	66	33	27	9	9	3	2	1	...
Metal mining contract services.....	114	6	59	13	10	14	5	6	...	1	...	...
Miscellaneous metal ores.....	781	228	388	99	27	21	6	9	3	...	...	...
Anthracite mining, total.....	1,436	660	262	159	110	129	44	32	25	13	2	...
Anthracite.....	1,291	655	230	134	86	93	31	25	22	13	2	...
Anthracite contract services.....	145	5	32	25	24	36	13	7	3	...	...	...
Bituminous coal and lignite mining, total.....	6,855	565	2,616	1,316	895	654	304	286	147	67	4	1
Bituminous coal.....	6,643	545	2,517	1,274	873	633	296	286	147	67	4	1
Lignite.....	60	10	30	9	2	5	4	...	...	...	...	...
Bituminous coal and lignite mining contract services.....	152	10	69	33	20	16	4	...	...	...	...	...
Crude petroleum and natural gas extraction, total.....	17,585	2,015	8,094	2,667	2,043	1,771	579	284	70	41	15	6
Crude petroleum and natural gas.....	11,508	1,908	6,294	1,421	843	618	203	138	39	29	11	4
Natural gas liquids.....	562	6	66	72	131	201	73	12	1	...	...	...
Oil and gas field contract services...	5,515	101	1,734	1,174	1,069	952	303	134	30	12	4	2
Nonmetallic minerals (except fuels) mining, total.....	8,074	1,235	2,715	1,480	1,333	927	242	101	32	7	2	...
Dimension stone.....	351	31	177	59	38	36	7	2	1	...	...	...
Crushed and broken stone.....	1,901	85	434	370	483	383	100	38	7	1	...	...
Sand and gravel.....	3,931	468	1,567	815	627	353	82	16	3	...	...	...
Clay, ceramic, and refractory minerals	632	130	228	90	73	85	16	6	4	...	...	...
Natural abrasives, except sand.....	32	9	10	3	6	3	1	...	...	...	...	...
Chemical and fertilizer mineral mining	317	79	49	36	39	34	27	31	14	6	2	...
Nonmetallic minerals (except fuels) contract services.....	62	4	24	16	14	3	...	1	...	...	...	...
Miscellaneous nonmetallic minerals, (except fuels).....	848	429	226	91	53	30	9	7	3	...	...	...

MINERAL INDUSTRIES—SUMMARY STATISTICS

Table 2.—NUMBER OF ESTABLISHMENTS IN THE MINERAL INDUSTRIES IN THE UNITED STATES CLASSIFIED BY EMPLOYMENT SIZE, BY GEOGRAPHIC DIVISIONS AND STATES: 1954

Geographic division and State	Total, all establishments	Establishments with an average of—										
		No em- ployees	1-4 em- ployees	5-9 em- ployees	10-19 em- ployees	20-49 em- ployees	50-99 em- ployees	100-249 em- ployees	250-499 em- ployees	500-999 em- ployees	1,000-2,499 em- ployees	2,500 and over
United States, total.....	37,446	5,958	14,833	5,918	4,543	3,635	1,240	802	321	145	41	10
New England, total.....	385	51	152	67	75	30	7	1	2	...	...	...
Maine.....	66	15	36	5	7	2	1	...	...	...	...	...
New Hampshire.....	39	5	19	9	3	2	1	...	...	...	...	...
Vermont.....	42	7	11	8	5	6	2	1	2	...	...	...
Massachusetts.....	127	10	46	24	34	12	1	...	...	...	...	...
Rhode Island.....	20	1	10	1	5	3	...	...	...	...	...	...
Connecticut.....	91	13	30	20	21	5	2	...	...	...	...	...
Middle Atlantic, total.....	5,320	1,070	2,212	723	533	430	137	105	64	39	6	1
New York.....	629	78	328	90	65	40	13	9	4	2	...	...
New Jersey.....	153	7	45	33	27	24	8	6	3	...	...	...
Pennsylvania.....	4,538	985	1,839	600	441	366	116	90	57	37	6	1
East North Central, total.....	4,636	564	1,972	758	651	419	120	97	37	16	2	...
Ohio.....	1,654	206	763	266	225	136	31	16	7	4	...	...
Indiana.....	776	123	313	134	105	62	24	10	5	...	...	...
Illinois.....	1,345	129	530	216	206	147	51	46	11	9	...	...
Michigan.....	567	78	237	92	66	44	11	23	12	2	2	...
Wisconsin.....	294	28	129	50	49	30	3	2	2	1	...	...
West North Central, total.....	3,320	367	1,398	614	471	329	73	54	8	1	3	2
Minnesota.....	292	20	95	48	45	27	21	26	7	...	2	1
Iowa.....	329	30	115	81	77	24	2	...	...	...	...	...
Missouri.....	456	37	186	89	70	61	9	3	...	...	...	1
North Dakota.....	146	18	57	26	19	19	5	2	...	...	...	...
South Dakota.....	187	76	48	26	14	18	3	1	...	...	1	...
Nebraska.....	249	39	117	44	28	20	...	1	...	...	...	...
Kansas.....	1,661	147	780	300	218	160	33	21	1	1	...	...
South Atlantic, total.....	4,227	578	1,658	717	466	389	165	147	77	29	1	...
Delaware.....	10	2	3	3	1	1	...	...	...	...	...	...
Maryland.....	185	21	74	34	27	25	2	2	...	...	...	...
District of Columbia.....	1	...	1	...	...	...	...	...	...	...	...	...
Virginia.....	755	25	275	167	135	97	33	9	10	4	...	...
West Virginia.....	2,322	158	1,090	406	206	183	87	108	60	23	1	...
North Carolina.....	513	301	98	42	28	26	14	3	...	1	...	...
South Carolina.....	56	4	18	10	6	7	8	3	...	...	...	...
Georgia.....	192	46	52	22	25	27	11	6	3	...	...	...
Florida.....	193	21	47	33	38	23	10	16	4	1	...	...
East South Central, total.....	3,073	372	1,074	594	452	331	112	92	32	12	2	...
Kentucky.....	1,816	246	632	355	246	183	67	61	18	7	1	...
Tennessee.....	665	58	257	140	105	71	18	13	2	1	...	...
Alabama.....	378	46	115	63	66	45	13	14	11	4	1	...
Mississippi.....	214	22	70	36	35	32	14	4	1	...	...	...
West South Central, total.....	9,179	860	3,626	1,468	1,319	1,203	409	191	57	30	11	5
Arkansas.....	410	62	152	64	65	42	17	5	3	...	...	...
Louisiana.....	895	81	269	114	147	159	61	41	8	11	4	...
Oklahoma.....	2,610	253	1,174	414	376	275	67	32	12	6	1	...
Texas.....	5,264	464	2,031	876	731	727	264	113	34	13	6	5
Mountain, total.....	4,551	1,309	1,766	595	325	285	142	72	29	15	12	1
Montana.....	578	140	256	92	35	26	13	10	2	2	1	1
Idaho.....	249	73	95	33	20	13	7	3	3	2	...	...
Wyoming.....	483	56	208	60	58	52	31	12	6	...	...	...
Colorado.....	1,020	254	427	151	71	60	37	11	6	2	1	...
New Mexico.....	691	153	269	98	52	74	27	10	4	2	2	...
Arizona.....	525	265	154	41	29	15	3	7	2	3	6	...
Utah.....	555	124	239	94	39	22	17	12	4	2	2	...
Nevada.....	450	244	118	26	21	23	7	7	2	2	...	...
Pacific, total.....	2,755	787	975	382	251	219	75	43	15	3	4	1
Washington.....	287	66	112	48	28	23	5	3	2	...	...	...
Oregon.....	278	77	111	47	30	9	4	...	...	...	...	...
California.....	2,190	644	752	287	193	187	66	40	13	3	4	1

Table 3.—GENERAL STATISTICS FOR MINERAL INDUSTRIES ESTABLISHMENTS IN THE UNITED STATES CLASSIFIED BY EMPLOYMENT SIZE, BY INDUSTRY: 1954

(For explanation of column captions, see INTRODUCTION)

Industry group, industry, and number of employees in establishment	Number of establishments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
All mineral industries, total.....	37,446	14,906,583	11,546,418	647,141	138,567	1,248,898	2,572,297	813,425	2,613,751
Metal mining.....	3,496	1,506,238	1,075,519	81,896	18,354	168,346	353,303	109,722	214,537
Anthracite mining.....	1,436	408,431	196,835	33,026	4,436	48,266	113,932	21,997	8,446
Bituminous coal and lignite mining.....	6,855	2,068,183	1,418,384	199,655	19,178	322,769	764,863	109,442	103,975
Crude petroleum and natural gas extraction.....	17,585	9,341,539	27,673,694	235,483	80,252	491,718	976,595	485,848	2,156,530
Nonmetallic minerals (except fuels) mining.....	8,074	1,582,192	1,181,986	97,081	16,347	214,799	363,604	86,416	130,263
METAL MINING									
Iron ores, total.....	225	547,218	435,668	28,216	5,954	53,288	119,688	37,221	84,260
0.....	16	2,750	1,786	...	...	...	...	...	143
1-4.....	28	5,944	4,156	58	14	114	184	51	178
5-9.....	21	1,540	835	147	9	253	440	52	2,183
10-19.....	25	7,953	6,213	329	33	654	1,186	203	367
20-49.....	25	13,132	7,272	691	123	1,344	2,679	655	2,502
50-99.....	29	48,316	39,148	1,898	283	3,810	8,344	1,926	6,352
100-249.....	48	134,862	118,306	6,753	1,112	12,876	29,325	7,058	50,041
250-499.....	23	95,333	69,557	6,852	833	12,751	29,474	4,821	11,568
500-999.....	4	39,297	26,845	2,518	276	5,036	12,061	1,706	2,735
1,000-2,499.....	5	198,091	161,550	8,970	3,271	16,450	35,995	20,749	8,191
2,500 and over.....	1								
Copper ores, total.....	210	508,729	334,876	21,544	6,269	46,676	98,491	37,574	80,970
0.....	86	273	208	...	...	3	9	1	2,797
1-4.....	59	707	458	110	13	203	340	31	447
5-9.....	16	984	831	94	15	200	319	77	181
10-19.....	8	260	399	96	7	209	398	43	255
20-49.....	9	14,250	5,553	363	113	857	1,632	609	774
50-99.....	2								
100-249.....	7	13,243	9,207	906	151	2,132	3,854	703	2,698
250-499.....	6	35,851	19,143	1,854	361	4,075	8,136	1,733	26,927
500-999.....	6	59,121	32,687	2,606	1,086	5,850	12,055	5,844	32,365
1,000-2,499.....	10	384,040	266,390	15,515	4,523	33,147	71,748	28,533	14,526
2,500 and over.....	1								
Lead and zinc ores:									
Ores valued chiefly for lead, total...	343	94,874	62,713	7,156	1,564	14,654	29,549	9,453	4,883
0.....	143	507	400	...	...	6	9	...	253
1-4.....	113	1,080	1,127	181	39	322	560	122	787
5-9.....	27	2,346	892	153	20	317	503	80	210
10-19.....	19	5,420	4,717	315	33	663	1,324	173	493
20-49.....	18	5,157	4,256	492	50	1,036	2,070	267	1,215
50-99.....	11	19,339	7,091	715	123	1,591	3,179	669	892
100-249.....	6	10,926	5,949	802	186	1,666	3,427	1,077	383
250-499.....	3	50,099	38,281	4,498	1,113	9,053	18,477	7,065	650
500-999.....	2								
2,500 and over.....	1	81,073	44,696	6,436	1,410	12,900	24,127	8,234	6,189
Ores valued chiefly for zinc, total...	177								
0.....	49	105	75	...	...	2	2	...	1,754
1-4.....	45	591	(3)	72	18	137	213	79	443
5-9.....	14	662	543	85	14	179	252	65	187
10-19.....	20	2,615	1,463	224	35	522	848	163	242
20-49.....	29	11,256	6,559	841	91	1,892	3,424	492	1,344
50-99.....	4	3,183	2,141	252	29	558	1,151	182	127
100-249.....	7	28,309	7,657	958	161	2,204	3,748	812	993
250-499.....	7	34,352	26,362	4,004	1,062	7,406	14,489	6,441	1,099
500-999.....	1								
1,000-2,499.....	1	28,517	21,884	2,634	386	5,894	10,406	1,863	1,987
Lode gold, total.....	298								
0.....	139	309	303	...	...	...	...	...	121
1-4.....	119	500	451	213	34	362	536	71	437
5-9.....	20	376	278	118	16	255	390	55	282
10-19.....	6	306	317	65	11	170	310	20	161
20-49.....	5	1,517	1,190	115	17	261	530	110	62
50-99.....	5	4,472	2,565	272	50	643	1,020	253	173
100-249.....	3	21,037	16,780	1,851	258	4,203	7,620	1,354	751
1,000-2,499.....	1								
Placer gold, total.....	136	5,916	3,614	501	55	1,255	1,997	314	353
0.....	91	207	211	...	...	...	...	...	89
1-4.....	36	136	105	54	16	100	157	61	157
5-9.....	4	5,573	3,298	447	39	1,155	1,840	253	107
10-19.....	1								
20-49.....	2	12,148	9,856	1,065	190	2,214	5,003	1,035	955
100-249.....	2								
500-999.....	1	155	70	...	...	1	1	...	125
Silver ores, total.....	101								
0.....	45	147	205	60	8	114	166	20	287
1-4.....	34	312	348	61	16	122	226	42	205
5-9.....	12	566	566	78	8	182	329	24	218
10-19.....	7	10,968	8,667	866	158	1,795	4,281	949	120
20-49.....	2								
500-999.....	1								

See footnotes at end of table.

Table 3.—GENERAL STATISTICS FOR MINERAL INDUSTRIES ESTABLISHMENTS IN THE UNITED STATES CLASSIFIED BY EMPLOYMENT SIZE, BY INDUSTRY: 1954—Continued

(For explanation of column captions, see INTRODUCTION)

Industry group, industry, and number of employees in establishment	Number of establish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and de- velopment workers (1,000)	Wages and salaries		New capital expendi- tures (\$1,000)		
				Production and de- velopment workers	All other employees		Production and de- velopment workers (\$1,000)	All other employees (\$1,000)			
METAL MINING--Continued											
Bauxite, total.....	25	16,819	12,827	661	191	1,288	2,529	1,052	306		
0.....	1	2,047	1,434	13	5	19	28	26	19		
1-4.....	8					66	97				
5-9.....	4					137	204				
10-19.....	6					120	21				
20-49.....	4					906	248				
250-499.....	2	13,020	10,715	550	165	1,066	2,200	906	248		
Manganese ores, total.....	367	32,398	18,118	2,266	338	4,293	7,643	1,649	2,681		
0.....	218	2,724	1,603	43	1	115	170	5	148		
1-4.....	82	1,663	1,251	151	12	253	402	23	526		
5-9.....	28	1,671	1,462	175	3	332	494	5	239		
10-19.....	15	1,404	1,159	201	11	399	672	36	500		
20-49.....	14	4,473	2,617	394	16	735	1,061	54	617		
50-99.....	5	4,736	2,581	316	43	738	1,235	280	209		
100-249.....	4	15,727	7,445	986	252	1,721	3,609	1,246	442		
500-999.....	1										
Tungsten ores, total.....	549	60,737	40,744	2,635	352	6,327	13,148	1,610	5,659		
0.....	360	1,450	1,102	...	...	...	...	...	233
1-4.....	125	1,986	1,580	248	14	438	805	52	614		
5-9.....	31	4,954	1,817	174	22	370	691	84	651		
10-19.....	13	2,178	1,330	145	16	332	683	61	128		
20-49.....	9	6,794	4,592	295	44	692	1,378	248	798		
50-99.....	4	4,622	4,323	258	25	582	1,217	146	1,089		
100-249.....	5	38,753	26,000	1,515	231	3,913	8,374	1,019	2,146		
250-499.....	1										
500-999.....	1										
Molybdenum ores and Ferro-alloy ores, except vanadium, n.e.c., total.....	170	60,536	48,537	1,937	550	4,502	10,539	3,946	5,731		
0.....	101	418	346	...	...	...	...	...	120
1-4.....	50	1,400	1,075	89	8	171	307	24	305		
5-9.....	7	528	331	48	1	91	178	3	141		
10-19.....	5	396	262	48	16	98	217	47	37		
20-49.....	4	57,794	46,523	1,752	525	4,142	9,837	3,872	5,128		
250-499.....	2										
1,000-2,499.....	1										
Metal mining contract services, total....	114	38,679	26,703	2,863	196	6,519	13,933	1,335	2,045		
0.....	6	15	13	...	...	...	...	...	(D)
1-4.....	59	1,702	1,163	126	1	248	461	1	209		
5-9.....	13	906	567	88	3	187	326	10	(D)		
10-19.....	10	1,361	1,068	126	9	280	548	47	89		
20-49.....	14	5,011	3,638	442	31	1,006	1,970	211	206		
50-99.....	5	4,594	3,282	331	37	821	1,661	301	199		
100-249.....	6	25,090	16,972	1,750	115	3,977	8,967	765	1,247		
500-999.....	1										
Mercury ores, total.....	87	4,519	3,355	372	81	841	1,607	365	459		
0.....	55	137	141	...	...	...	...	...	67
1-4.....	20	113	60	28	5	49	90	13	28		
5-9.....	4	84	83	19	9	51	84	50	100		
10-19.....	3	1,028	915	105		199	435		118		
20-49.....	2					...	...		...
50-99.....	2					3,157	2,156		220	167	542	998	302	146
100-249.....	1										
Uranium-radium-vanadium ores, total.....	637	(NA)	(NA)	2,944	523	6,227	11,908	2,660	13,625		
0.....	147	(NA)	(NA)	...	...	...	...	...	1,042
1-4.....	355	(NA)	(NA)	657	53	1,157	2,154	199	4,188		
5-9.....	90	(NA)	(NA)	488	51	986	1,852	212	1,601		
10-19.....	19	(NA)	(NA)	250	14	536	1,028	101	1,132		
20-49.....	15	(NA)	(NA)	360	75	816	1,565	415	1,558		
50-99.....	4	(NA)	(NA)	238		531	990		259		
100-249.....	5	(NA)	(NA)	951		330	2,201		4,319	1,733	3,845
250-499.....	2										
Titanium ores and Metallic ores, n.e.c., total.....	57	14,075	11,928	666	295	1,468	2,735	1,411	4,434		
0.....	26	68	52	...	...	...	...	...	15
1-4.....	13	227	159	19	7	33	55	31	40		
5-9.....	5	715	349	26		62	98		293		
10-19.....	5	235	50	52		13	108		72	80	
20-49.....	4	1,519	817	71		20	151		235	109	45
100-249.....	3	11,311	10,501	498		255	1,114		2,135	1,199	3,961
250-499.....	1										

See footnotes at end of table.

Table 3.—GENERAL STATISTICS FOR MINERAL INDUSTRIES ESTABLISHMENTS IN THE UNITED STATES CLASSIFIED BY EMPLOYMENT SIZE, BY INDUSTRY: 1954—Continued
(For explanation of column captions, see INTRODUCTION)

Industry group, industry, and number of employees in establishment	Number of establishments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
ANTHRACITE MINING									
Anthracite, total.....	1,291	365,536	167,090	28,823	3,946	42,061	98,678	19,392	6,953
0.....	655	40,202	16,919	...	...	2	7	...	482
1-4.....	230	5,524	2,945	555	21	844	1,372	62	243
5-9.....	134	10,620	4,641	821	49	1,433	2,462	118	594
10-19.....	86	17,499	7,845	1,054	101	1,870	3,867	418	801
20-49.....	93	37,172	16,169	2,458	388	3,982	9,053	1,900	911
50-99.....	31	30,216	12,230	1,901	238	3,070	6,761	1,144	252
100-249.....	25	51,145	19,169	3,780	479	5,146	12,449	2,322	345
250-499.....	22	83,843	30,812	7,049	1,097	9,854	23,650	6,118	1,281
500-999.....	13	89,315	56,360	11,205	1,573	15,860	39,057	7,310	2,044
1,000-2,499.....	2								
Anthracite stripping contract services, total.....	132	42,048	29,079	4,074	482	6,038	14,809	2,571	1,464
0.....	4	87	39	...	...	...	...	...	4
1-4.....	31	620	414	65	6	94	203	8	9
5-9.....	19	1,348	1,022	119	6	198	443	17	7
10-19.....	22	3,002	2,001	272	22	446	1,046	56	90
20-49.....	33	10,480	7,251	868	102	1,392	3,537	554	199
50-99.....	13	9,944	7,038	827	97	1,336	3,181	574	536
100-249.....	7	9,276	6,309	945	108	1,379	3,398	630	91
250-499.....	3	7,291	5,005	978	141	1,193	3,001	732	528
Anthracite contract services, except stripping, total.....	13	847	666	129	8	167	445	34	29
0.....	1	452	334	48	2	66	182	19	10
1-4.....	1								
5-9.....	6	395	332	81	6	101	263	15	19
10-19.....	2								
20-49.....	3								
BITUMINOUS COAL AND LIGNITE MINING									
Bituminous coal, total.....	6,643	2,040,200	1,396,774	197,819	18,994	322,410	757,175	108,474	101,379
0.....	545	9,604	5,419	...	...	29	54	2	117
1-4.....	2,517	41,467	27,732	5,859	145	8,270	12,615	474	1,966
5-9.....	1,274	69,375	39,866	7,997	331	12,345	20,907	1,066	2,332
10-19.....	873	100,888	60,873	11,066	667	17,740	31,701	2,558	4,028
20-49.....	633	183,677	118,879	17,905	1,806	30,528	61,668	8,944	12,876
50-99.....	296	238,343	152,961	18,971	1,756	31,634	75,008	9,156	13,180
100-249.....	286	508,628	324,395	42,451	4,706	68,541	171,201	27,077	22,007
250-499.....	147	430,299	325,424	46,079	4,518	74,722	187,495	27,081	21,550
500-999.....	67	398,627	297,018	40,554	4,468	66,169	165,951	28,383	20,719
1,000-2,499.....	4	59,292	44,207	6,937	597	12,432	30,575	3,733	2,604
2,500 and over.....	1								
Lignite, total.....	60	10,387	9,093	505	69	901	2,177	411	628
0.....	10	59	46	...	...	2	2	...	8
1-4.....	30	612	411	47	1	84	120	4	16
5-9.....	9	839	579	75	11	143	271	38	31
10-19.....	2								
20-49.....	5	2,879	2,395	149	23	243	652	195	573
50-99.....	4	5,998	5,662	234	34	429	1,132	174	
Bituminous coal and lignite mining contract services, total.....	152	17,596	12,517	1,331	115	2,458	5,511	557	1,968
0.....	10	65	43	...	...	1	2	...	...
1-4.....	69	1,807	1,309	155	...	261	471	...	347
5-9.....	33	6,961	4,958	479	30	911	1,954	103	582
10-19.....	20								
20-49.....	16	6,011	4,147	462	33	869	2,012	174	379
50-99.....	4	2,752	2,060	235	52	416	1,072	280	660
CRUDE PETROLEUM AND NATURAL GAS EXTRACTION									
Crude petroleum and Natural gas, total...	11,508	7,070,097	6,129,213	109,792	462,714	216,581	459,955	4375,785	1,863,393
0.....	1,908	103,104	26,488	...	1	3	10	4	117,618
1-4.....	6,294	314,795	227,553	10,027	1,611	14,140	22,444	4,901	107,229
5-9.....	1,421	260,752	200,686	7,267	1,934	12,919	21,910	8,204	70,865
10-19.....	843	393,904	301,831	8,967	2,512	17,741	31,208	14,209	104,799
20-49.....	618	696,337	572,857	13,858	4,624	28,874	54,408	27,899	171,586
50-99.....	203	578,511	493,153	10,357	3,449	21,989	44,469	20,814	147,363
100-249.....	138	1,107,018	994,700	15,232	6,112	32,110	70,600	37,067	319,431
250-499.....	39	730,036	667,855	9,198	4,494	19,313	43,139	26,090	157,133
500-999.....	29	1,060,714	985,597	14,199	5,609	28,498	67,321	32,431	264,518
1,000-2,499.....	11	1,011,814	936,667	11,203	5,976	22,657	56,501	36,928	237,638
2,500 and over.....	4	813,112	721,826	9,484	4,673	18,337	47,945	31,230	165,213

See footnotes at end of table.

Table 1.—GENERAL STATISTICS FOR MINERAL INDUSTRIES ESTABLISHMENTS IN THE UNITED STATES CLASSIFIED BY EMPLOYMENT SIZE, BY INDUSTRY: 1954—Continued

(For explanation of column captions, see INTRODUCTION)

Industry group, industry, and number of employees in establishment	Number of establishments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
CRUDE PETROLEUM AND NATURAL GAS EXTRACTION—Continued									
Natural gas liquids, total.....	562	640,422	(NA)	13,560	3,780	27,862	63,983	21,074	107,021
0.....	6	2,279	(NA)	133	10	301	566	44	2,862
1-4.....	66								
5-9.....	72	12,289	(NA)	452	42	940	1,800	167	7,199
10-19.....	131	53,250	(NA)	1,652	204	3,424	7,543	1,121	31,478
20-49.....	201	226,006	(NA)	5,670	709	11,716	26,693	4,200	33,331
50-99.....	73	199,388	(NA)	4,035	774	8,189	19,382	4,688	15,538
100-249.....	12	147,210	(NA)	1,618	2,041	3,292	7,999	10,854	6,752
250-499.....	1								
Drilling oil and gas wells contract services, total.....	2,869	972,745	623,967	62,145	5,831	133,216	264,797	39,515	125,077
0.....	31	438	317	...	...	1	2	5	14
1-4.....	719	19,641	15,977	1,798	51	3,078	5,004	122	5,299
5-9.....	591	39,602	30,431	3,889	173	7,097	12,369	659	6,555
10-19.....	650	119,136	89,049	8,530	511	16,642	31,564	2,294	28,444
20-49.....	564	241,018	155,873	15,999	1,294	33,563	66,239	7,775	30,602
50-99.....	199	202,009	123,022	12,553	1,161	27,725	55,937	8,724	18,761
100-249.....	92	195,024	112,106	11,227	1,376	25,431	52,434	10,175	17,079
250-499.....	16	76,397	47,809	4,411	523	9,622	20,002	4,058	7,151
500-999.....	6	79,480	49,383	3,738	742	10,057	21,246	5,703	11,172
1,000-2,499.....	1								
Building, repairing, and dismantling rigs and derricks contracts services, total.....	120	11,657	9,552	1,539	93	1,720	4,769	452	364
0.....	3	33	27	...	...	...	...	...	2
1-4.....	34	523	445	81	...	84	191	...	3
5-9.....	40	1,265	1,128	252	2	239	635	8	23
10-19.....	15	949	743	201	20	160	445	59	53
20-49.....	23	4,591	3,810	641	20	757	1,945	70	262
50-99.....	4	4,296	3,399	364	51	480	1,553	315	21
100-249.....	1								
Oil and gas field contract services, n.e.c., total.....	2,526	646,618	485,025	48,447	7,834	112,339	183,091	49,022	60,675
0.....	67	1,249	771	...	...	1	4	...	42
1-4.....	981	23,044	18,092	2,220	69	3,770	6,172	166	2,089
5-9.....	543	33,561	26,255	3,466	178	6,578	11,269	670	2,717
10-19.....	404	47,544	37,644	5,219	301	10,972	18,378	1,341	3,534
20-49.....	365	92,460	70,380	10,250	707	21,523	35,177	3,590	7,494
50-99.....	100	56,968	40,514	6,146	477	13,339	20,857	3,014	2,763
100-249.....	41	54,977	42,920	5,189	601	12,247	20,037	4,447	2,711
250-499.....	14	60,451	43,380	3,413	1,375	8,656	14,157	8,293	5,023
500-999.....	6	276,364	205,069	12,544	4,126	35,253	57,040	27,501	34,302
1,000-2,499.....	3								
2,500 and over.....	2								
NONMETALLIC MINERALS (EXCEPT FUELS) MINING									
Dimension limestone, total.....	65	3,754	2,942	472	28	872	1,429	127	89
0.....	9	23	21	...	...	...	...	...	...
1-4.....	36	422	324	74	...	116	155	...	8
5-9.....	6	210	156	39	...	67	87	...	9
10-19.....	3	265	219	34	4	55	91	19	4
20-49.....	9	2,834	2,222	325	24	634	1,096	108	68
50-99.....	2								
Dimension granite, total.....	86	5,738	4,590	917	50	1,769	2,404	235	192
0.....	3	11	9	...	...	...	...	...	...
1-4.....	37	489	386	78	1	133	194	4	28
5-9.....	17	718	608	108	3	209	293	8	34
10-19.....	14	1,320	995	188	12	367	549	50	79
20-49.....	11	1,832	1,525	298	18	577	797	79	20
50-99.....	4	1,368	1,067	245	16	483	571	94	31
Dimension marble, total.....	30	3,491	2,893	612	25	1,245	1,505	135	58
0.....	1	115	108	14	1	24	34	3	36
1-4.....	8								
5-9.....	7	200	164	42	2	75	87	4	14
10-19.....	4	258	231	43	2	90	109	8	...
20-49.....	9	2,918	2,390	513	20	1,056	1,275	120	8
250-499.....	1								
Dimension sandstone, total.....	115	5,292	4,178	925	48	1,752	2,273	183	372
0.....	10	205	113	...	...	...	...	...	...
1-4.....	58	599	523	126	3	203	248	8	75
5-9.....	22	946	760	134	6	258	350	14	35
10-19.....	15	1,077	810	168	23	355	433	80	90
20-49.....	7	1,140	879	173	9	349	556	32	51
50-99.....	1	1,325	1,093	324	7	587	686	49	121
100-249.....	2								

See footnotes at end of table.

Table 3.—GENERAL STATISTICS FOR MINERAL INDUSTRIES ESTABLISHMENTS IN THE UNITED STATES CLASSIFIED BY EMPLOYMENT SIZE, BY INDUSTRY: 1954—Continued.
(For explanation of column captions, see INTRODUCTION)

Industry group, industry, and number of employees in establishment	Number of establishments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
NONMETALLIC MINERALS (EXCEPT FUELS)									
MINING—Continued									
Dimension trap rock and Dimension stone, n.e.c., total.....	55	670	552	142	5	255	327	7	25
0.....	8	30	21	...	...	...	...	...	4
1-4.....	38	303	248	67	3	113	142	4	12
5-9.....	7	337	283	75	2	142	185	3	9
10-19.....	2								
Crushed and broken limestone, total.....	1,447	328,757	239,604	24,925	3,315	56,335	90,715	17,103	28,010
0.....	54	452	243	...	...	...	...	...	11
1-4.....	325	9,210	6,464	776	47	1,437	1,980	113	974
5-9.....	269	18,610	13,087	1,706	142	3,537	4,955	454	2,266
10-19.....	411	62,734	44,405	5,027	687	11,439	16,763	2,719	6,518
20-49.....	287	100,692	73,064	7,337	1,311	17,421	26,613	7,047	10,126
50-99.....	67	55,561	41,514	3,992	477	9,702	15,435	2,454	4,134
100-249.....	27	54,914	40,881	3,670	445	8,086	15,052	2,848	2,285
250-499.....	6	26,584	19,946	2,417	206	4,713	9,917	1,468	1,696
500-999.....	1								
Crushed and broken granite, total.....	101	30,875	22,201	2,344	206	5,607	7,573	1,306	2,698
0.....	6	569	32	...	...	...	...	...	...
1-4.....	19	367	294	39	3	78	108	8	70
5-9.....	25	2,246	1,864	162	14	291	533	76	391
10-19.....	11	1,755	1,304	142	12	321	414	43	230
20-49.....	24	8,794	6,616	667	57	1,596	2,489	298	468
50-99.....	11	9,472	6,628	744	78	1,895	2,213	584	527
100-249.....	5	7,672	5,463	590	42	1,426	1,816	297	1,012
Crushed and broken slate, total.....	11	8,162	5,055	464	69	1,198	1,949	420	312
5-9.....	2	1,106	730	98	19	214	319	93	56
10-19.....	4								
20-49.....	1	7,056	4,325	366	50	984	1,630	327	256
50-99.....	4								
Crushed and broken marble, total.....	18	5,142	3,661	379	52	796	1,120	249	350
1-4.....	6	709	667	95	12	173	295	54	212
5-9.....	1								
10-19.....	6	4,433	2,994	284	40	623	825	195	138
20-49.....	3								
50-99.....	1								
100-249.....	1								
Crushed and broken trap rock, total.....	142	45,471	34,127	2,680	377	6,659	12,089	2,116	3,161
0.....	8	159	32	...	...	...	...	...	...
1-4.....	23	987	531	48	4	95	218	10	352
5-9.....	31	3,047	2,271	193	18	385	869	56	257
10-19.....	28	4,580	3,276	356	42	802	1,529	220	326
20-49.....	39	19,110	14,704	1,028	147	2,492	4,467	967	966
50-99.....	9	9,995	7,278	493	124	1,309	2,122	677	534
100-249.....	4	7,593	6,035	562	42	1,576	2,884	186	726
Crushed and broken sandstone, total.....	87	31,190	22,913	1,529	182	3,283	5,970	1,084	4,479
0.....	9	292	35	...	...	...	...	...	15
1-4.....	12	265	199	23	1	49	79	8	...
5-9.....	19	1,471	1,121	117	9	223	438	26	234
10-19.....	16	2,583	2,056	204	17	430	720	68	194
20-49.....	26	11,239	7,864	690	76	1,503	2,651	425	858
50-99.....	4	15,340	11,638	495	79	1,078	2,082	557	3,178
250-499.....	1								
Crushed and broken stone, n.e.c., total..	95	15,657	10,050	803	79	1,681	3,083	419	576
0.....	8	305	80	...	...	...	...	...	74
1-4.....	49	960	645	92	6	164	263	10	40
5-9.....	23	2,145	1,760	149	9	332	517	51	235
10-19.....	7	879	668	94	2	220	328	5	85
20-49.....	3	915	650	78	7	136	302	54	14
50-99.....	4	10,453	6,247	390	55	829	1,673	299	128
100-249.....	1								
Common sand and gravel, total.....	3,756	435,662	334,046	28,423	5,667	65,600	111,600	26,958	36,247
0.....	453	4,050	2,778	...	...	...	...	...	254
1-4.....	1,499	38,024	28,471	3,227	197	6,200	9,717	577	5,592
5-9.....	783	60,028	47,199	4,489	662	9,952	16,930	2,440	6,304
10-19.....	595	101,530	77,689	6,748	1,307	15,090	26,767	6,198	8,702
20-49.....	334	130,646	101,689	8,176	1,455	20,279	34,140	7,580	8,933
50-99.....	75	58,414	43,135	3,809	1,176	9,172	15,170	5,895	3,364
100-249.....	15	42,970	33,085	1,974	870	4,907	8,876	4,268	3,098
250-499.....	2								

See footnotes at end of table.

Table 3.—GENERAL STATISTICS FOR MINERAL INDUSTRIES ESTABLISHMENTS IN THE UNITED STATES CLASSIFIED BY EMPLOYMENT SIZE, BY INDUSTRY: 1954—Continued

(For explanation of column captions, see INTRODUCTION)

Industry group, industry, and number of employees in establishment	Number of establishments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
NONMETALLIC MINERALS (EXCEPT FUELS) MINING—Continued									
Glass sand, total.....	44	18,591	13,701	1,144	151	2,505	4,279	819	1,081
0.....	4	23	20	...	...	...	...	...	...
1-4.....	11	248	207	20	1	37	65	...	10
5-9.....	3	94	91	16	1	32	39	3	23
10-19.....	6	1,661	1,377	83	13	208	314	66	50
20-49.....	14	7,136	4,730	401	67	919	1,554	377	459
50-99.....	4	9,429	7,276	624	69	1,309	2,307	373	539
100-249.....	1								
250-499.....	1								
Foundry sand, total.....	131	11,762	8,982	966	115	1,998	3,087	570	745
0.....	11	189	99	...	...	...	...	...	...
1-4.....	57	1,282	1,068	122	14	217	329	41	239
5-9.....	29	1,823	1,388	178	18	337	572	96	71
10-19.....	26	3,809	2,955	305	52	608	917	230	235
20-49.....	5	2,440	1,635	161	8	382	597	25	122
50-99.....	3	2,219	1,837	200	23	454	672	178	78
Bentonite, total.....	43	21,830	16,350	578	56	1,340	1,920	215	488
0.....	7	469	263	...	...	...	...	...	...
1-4.....	12	280	124	25	3	40	61	8	...
5-9.....	2	1,709	1,310	93	11	201	301	45	60
10-19.....	6								
20-49.....	14								
50-99.....	2	19,372	14,653	460	42	1,099	1,558	162	428
Fire clay, total.....	248	22,206	17,468	1,802	185	3,123	5,670	928	1,188
0.....	39	1,214	698	...	...	...	...	...	33
1-4.....	102	3,428	2,476	228	21	391	592	61	147
5-9.....	41	2,704	2,003	241	23	506	839	114	184
10-19.....	37	6,162	5,136	411	61	608	1,086	267	203
20-49.....	26	7,649	6,341	724	61	1,221	2,550	399	609
50-99.....	3	1,049	814	198	19	397	603	87	12
Fuller's earth, total.....	16	6,012	4,179	510	54	1,109	1,381	363	497
0.....	1	335	250	31	4	72	99	13	130
1-4.....	7								
5-9.....	1								
10-19.....	1	5,677	3,929	479	50	1,037	1,282	350	367
20-49.....	4								
100-249.....	1								
250-499.....	1								
Kaolin and ball clay, total.....	54	31,892	25,249	2,820	328	6,159	8,115	1,828	4,291
0.....	4	55	43	...	...	...	...	...	...
1-4.....	10	768	469	21	1	39	49	5	44
5-9.....	4	145	91	27	5	42	41	27	12
10-19.....	8	1,708	1,262	101	18	217	272	107	74
20-49.....	13	5,193	3,649	432	33	871	1,056	151	126
50-99.....	8	4,712	3,474	516	30	1,173	1,444	154	300
100-249.....	4	7,145	5,973	662	75	1,446	1,935	437	1,656
250-499.....	3	12,166	10,288	1,061	166	2,371	3,318	947	2,079
Feldspar, total.....	84	6,669	4,048	579	37	1,235	1,523	199	389
0.....	37	338	287	...	...	...	...	...	8
1-4.....	18	148	108	31	1	54	57	...	2
5-9.....	13	617	429	83	6	156	174	20	12
10-19.....	6	896	504	78	4	159	397	31	196
20-49.....	9	4,670	2,720	387	26	866	895	148	171
100-249.....	1								
Magnesite and brucite, total.....	4	1,655	1,372	121	11	237	469	70	17
1-4.....	1	1,655	1,372	121	11	237	469	70	17
10-19.....	1								
20-49.....	1								
50-99.....	1								
Clay, ceramic, and refractory minerals, n.e.c., total.....	183	13,504	9,783	1,053	98	2,174	3,412	411	1,717
0.....	42	538	196	...	...	...	...	...	809
1-4.....	78	1,428	1,082	140	5	274	430	9	74
5-9.....	29	1,681	1,226	175	6	341	556	19	101
10-19.....	14	2,448	1,719	191	31	489	599	119	76
20-49.....	18	7,409	5,560	547	56	1,070	1,827	264	657
50-99.....	2								
Natural abrasives, except sand, total....	32	4,474	3,681	251	34	524	932	229	377
0.....	9	101	60	...	...	...	...	...	...
1-4.....	10	179	125	21	...	31	55	...	282
5-9.....	3	486	550	21	3	40	90	8	...
10-19.....	6	818	620	72	9	144	262	50	...
20-49.....	3	2,890	2,326	137	22	309	525	171	95
50-99.....	1								

See footnotes at end of table.

Table 3.--GENERAL STATISTICS FOR MINERAL INDUSTRIES ESTABLISHMENTS IN THE UNITED STATES CLASSIFIED BY EMPLOYMENT SIZE, BY INDUSTRY: 1954--Continued

(For explanation of column captions, see INTRODUCTION)

Industry group, industry, and number of employees in establishment	Number of establish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and de- velopment workers (1,000)	Wages and salaries		New capital expendi- tures (\$1,000)
				Production and de- velopment workers	All other employees		Production and de- velopment workers (\$1,000)	All other employees (\$1,000)	
NONMETALLIC MINERALS (EXCEPT FUELS) MINING--Continued									
Barite, total.....	44	18,269	14,051	1,036	89	2,403	3,451	423	955
0.....	4	531	152	10	1	21	34	3	42
1-4.....	7								
5-9.....	7								
10-19.....	15	1,729	1,330	185	16	426	491	70	29
20-49.....	8	15,507	12,138	796	70	1,870	2,806	344	873
50-99.....	1								
100-249.....	1								
250-499.....	1								
Fluorspar, total.....	104	15,461	9,914	997	263	2,001	3,451	1,415	714
0.....	55	154	119	...	...	...	...	...	18
1-4.....	14	212	146	26	5	40	57	13	41
5-9.....	13	1,313	725	67	22	129	219	100	43
10-19.....	7	1,412	765	87	10	184	297	43	44
20-49.....	9	3,231	2,265	223	39	489	794	241	95
50-99.....	5	9,139	5,894	594	187	1,159	2,084	1,018	473
250-499.....	1								
Potash, soda, and borate minerals, total.....	20	107,757	82,213	4,738	1,584	9,381	23,028	10,411	8,990
1-4.....	5	132	113	21	...	27	62	...	199
5-9.....	1								
10-19.....	1								
20-49.....	1								
50-99.....	2	5,547	4,958	262	50	582	1,210	320	376
100-249.....	1								
250-499.....	5	31,628	23,324	1,267	305	2,523	5,691	1,857	1,943
500-999.....	2	70,450	53,818	3,188	1,229	6,249	16,065	8,234	6,472
1,000-2,499.....	2								
Phosphate rock, total.....	75	117,976	62,089	4,579	861	10,119	17,089	4,440	11,229
0.....	10	257	159	...	...	...	...	...	(D)
1-4.....	10	372	265	24	1	44	58	6	(D)
5-9.....	10	1,216	791	60	4	123	183	14	173
10-19.....	6	1,123	799	64	5	158	241	14	37
20-49.....	9	5,972	3,642	272	24	570	1,020	129	1,445
50-99.....	11	24,894	14,015	788	113	1,747	2,925	645	1,445
100-249.....	14	58,360	29,890	2,038	334	4,636	7,526	1,742	2,130
250-499.....	4	25,782	12,528	1,333	380	2,841	5,136	1,890	2,613
500-999.....	1								
Rock salt, total.....	15	35,658	30,013	1,659	266	3,861	7,117	1,454	2,185
0.....	1	4,947	3,793	294	66	633	1,071	342	182
1-4.....	2								
20-49.....	1								
50-99.....	4								
100-249.....	6	30,711	26,220	1,365	200	3,228	6,046	1,112	2,003
250-499.....	1								
Sulfur, total.....	20	140,685	124,166	3,077	1,018	6,229	14,619	6,567	8,814
0.....	1	140,685	124,166	3,077	1,018	6,229	14,619	6,567	8,814
1-4.....	4								
5-9.....	1								
10-19.....	1								
50-99.....	2								
100-249.....	7								
250-499.....	2	16,223	13,421	943	173	1,881	3,578	1,012	1,750
500-999.....	2								
Chemical and fertilizer mineral mining, n.e.c., total.....	39	21,780	18,074	1,209	233	2,424	4,569	1,357	4,425
0.....	8	40	26	...	...	...	...	...	3
1-4.....	7	208	174	15	...	25	48	1	12
5-9.....	4	107	85	18	5	33	57	33	8
10-19.....	9	1,171	1,041	101	20	202	329	100	2,273
20-49.....	6	4,031	3,327	132	35	283	557	211	379
50-99.....	2	16,223	13,421	943	173	1,881	3,578	1,012	1,750
100-249.....	2								
500-999.....	1								
Nonmetallic minerals (except fuels) contract services, total.....	62	6,571	4,884	614	25	1,258	2,214	113	325
0.....	4	19	18	...	...	...	...	...	1
1-4.....	24	815	472	62	2	127	196	5	50
5-9.....	16	1,228	941	103	2	220	364	5	98
10-19.....	14	1,817	1,282	176	15	348	638	71	44
20-49.....	3	2,692	2,171	273	6	563	1,016	32	132
100-249.....	1								

See footnotes at end of table.

Table 3.—GENERAL STATISTICS FOR MINERAL INDUSTRIES ESTABLISHMENTS IN THE UNITED STATES CLASSIFIED BY EMPLOYMENT SIZE, BY INDUSTRY: 1954—Continued

(For explanation of column captions, see INTRODUCTION)

Industry group, industry, and number of employees in establishment	Number of establishments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
NONMETALLIC MINERALS (EXCEPT FUELS) MINING--Continued									
Gypsum, total.....	37	6,631	5,352	399	50	926	1,567	285	463
0.....	3	15	13	...	...	...	...	...	...
1-4.....	14	478	368	22	4	46	71	21	38
5-9.....	10	552	386	50	8	92	147	26	36
10-19.....	5	1,098	929	54	11	135	207	77	37
20-49.....	3	4,488	3,656	273	27	653	1,142	161	352
50-99.....	1								
100-249.....	1								
Mica, total.....	498	4,126	3,284	668	42	1,196	1,255	87	764
0.....	351	731	651	158	7	237	236	16	503
1-4.....	98	518	557						
5-9.....	32	913	729						
10-19.....	11	876	546	148	14	281	296	27	(D)
20-49.....	5	1,088	801	199	5	375	409	19	(D)
50-99.....	1								
Native asphalt and bitumens, total.....	12	6,424	4,857	451	100	987	1,443	704	540
0.....	1	533	342	35	4	69	128	19	22
5-9.....	2								
10-19.....	2								
20-49.....	3	1,026	814	84	17	181	260	80	12
50-99.....	2	4,865	3,701	332	79	737	1,055	605	506
100-249.....	2								
Pumice and pumicite, total.....	75	3,393	2,741	223	44	440	748	214	229
0.....	26	239	169	...	...	...	...	...	8
1-4.....	30	1,029	866	59	9	102	180	16	56
5-9.....	12	952	827	69	11	136	246	34	98
10-19.....	6	1,173	879	95	24	202	322	164	67
20-49.....	1								
Talc, soapstone, and pyrophyllite, total..	68	11,819	9,486	1,297	174	2,778	4,141	799	1,160
0.....	14	209	117	...	...	...	...	...	14
1-4.....	22	383	362	42	1	80	152	4	62
5-9.....	11	1,028	759	71	9	143	265	38	69
10-19.....	8	955	759	98	15	221	348	57	12
20-49.....	8	1,967	1,511	228	36	491	582	160	83
50-99.....	3	7,277	5,978	858	113	1,843	2,794	540	920
100-249.....	1								
250-499.....	1								
Peat, total.....	88	2,326	1,800	321	32	637	829	111	181
0.....	24	71	85	...	...	...	...	...	40
1-4.....	40	597	455	77	4	145	195	10	87
5-9.....	13	421	345	80	9	152	167	22	32
10-19.....	8	530	411	89	7	163	213	26	(D)
20-49.....	3	707	504	75	12	177	254	53	(D)
Vermiculite and Nonmetallic minerals, n.e.c., total.....	70	24,860	17,437	1,374	394	2,703	5,258	2,062	1,930
0.....	10	375	243	32	3	50	85	4	68
1-4.....	22								
5-9.....	11								
10-19.....	13	2,245	1,509	140	34	289	473	154	145
20-49.....	7	2,822	2,028	184	20	391	665	130	198
50-99.....	2	18,896	13,250	961	327	1,855	3,855	1,720	1,484
100-249.....	3								
250-499.....	2								

NA Not available.

D Withheld to avoid approximately disclosing figures for individual companies.

¹Excludes figures for the Uranium-radium-vanadium ores industry.²Includes a partly estimated figure for value added in the Natural gas liquids industries.³Value added was not computed for this group since the combined cost of supplies, crude ore and old tailings received for milling, fuel, purchased electric energy, contract work, and purchased machinery installed exceeded the sum of the value of shipments and capital expenditures. See INTRODUCTION, "Value added in mining."⁴Figure for 21,719 central office employees paid \$136,008 thousand in salaries are included only in total figure for crude petroleum and natural gas. These offices were not classified by size of establishment.

EMPLOYMENT AND RELATED STATISTICS

C-1

VALUE ADDED PER MAN-HOUR AND HORSEPOWER PER PRODUCTION WORKER
IN THE MINERAL INDUSTRIES IN THE UNITED STATES: 1939 AND 1954



Table 1.—EMPLOYMENT, MAN-HOURS, VALUE ADDED PER MAN-HOUR, AND HORSEPOWER PER PRODUCTION WORKER AT MINERAL OPERATIONS IN THE UNITED STATES, BY INDUSTRY GROUP AND INDUSTRY: 1954 AND 1939

Code No.	Industry group, industry, and year	Number of employees		Man-hours worked by production and development workers (1,000) ¹							Value added per man-hour (dollars)	Horse-power per production worker
		Total	Production and development workers	Total		At mines				At preparation plants		
				All types of work	Development and exploration work only	Underground	Open pit	Well operations	Surface (including mine shops and yards)			
	All mineral operations: ² 1954: Including operations classified in manufactures..... Mineral industries only..... 1939 (Including operations classified in manufactures) ³	805,938 785,703 856,389	666,621 647,141 774,130	1,288,461 1,248,898 1,287,852	239,901 239,044 (NA)	348,396 345,179 645,336	168,045 143,256 109,460	467,225 467,225 249,431	127,735 126,456 126,234	177,060 166,782 103,982	9.11 9.25 2.15	61 63 18
10	Metal mining, total: 1954..... 1939 ³	100,250 100,135	81,896 89,791	168,346 190,835	20,693 (NA)	68,254 99,525	30,323 23,884	xxx xxx	39,066 31,428	30,703 30,275	6.39 2.17	62 25
1011	Iron ores: 1954..... 1939.....	34,170 22,651	28,216 20,377	53,288 38,513	8,419 (NA)	19,956 19,758	12,671 6,043	xxx xxx	13,374 7,892	7,287 2,492	8.18 3.46	64 29
1021	Copper ores: 1954..... 1939.....	27,813 26,752	21,544 23,844	46,676 51,239	5,173 (NA)	13,880 21,922	11,174 7,838	xxx xxx	11,165 9,948	10,457 10,677	7.17 2.12	72 32
103	Lead and zinc ores: 1954..... 1939.....	16,566 17,725	13,592 15,731	27,554 32,481	1,498 (NA)	18,357 20,869	139 112	xxx xxx	4,477 3,567	4,581 6,649	3.90 1.46	55 22
1042	Lode gold: 1954..... 1939.....	3,020 19,254	2,634 17,591	5,894 41,522	884 (NA)	3,271 26,304	115 1,086	xxx xxx	1,734 6,439	774 6,782	3.71 1.60	42 17
1043	Placer gold: 1954..... 1939.....	556 3,705	501 3,228	1,255 8,088	71 (NA)	21 (⁵)	4907 58,088	xxx xxx	284 (⁵)	43 (⁵)	2.88 2.71	128 34
1044	Silver ores: 1954..... 1939.....	1,255 4,627	1,065 4,256	2,214 9,055	246 (NA)	1,627 6,888	25 39	xxx xxx	353 1,340	209 703	4.45 1.80	34 10
1051	Bauxite: 1954..... 1939 ⁶	852 827	661 727	1,288 1,176	10 (NA)	281 399	210 184	xxx xxx	583 104	214 461	9.96 1.67	74 18
1062	Manganese ores: 1954..... 1939 ⁶	2,604 545	2,266 504	4,293 959	260 (NA)	1,677 390	894 149	xxx xxx	402 91	1,320 321	4.22 0.74	47 10
1064	Tungsten ores: 1954..... 1939.....	2,987 844	2,635 701	6,327 1,639	651 (NA)	3,683 846	451 77	xxx xxx	691 189	1,502 496	6.44 1.48	59 22
1063 and 1069	Molybdenum ores and Ferro-alloy ores, except vanadium, n.e.c.: 1954..... 1939 ⁶	2,487 1,104	1,937 963	4,502 2,088	119 (NA)	2,122 1,116	139 27	xxx xxx	722 95	1,519 805	10.78 6.36	55 37
1081	Metal mining contract services: 1954..... 1939.....	3,059 695	2,863 637	6,519 1,344	1,873 (NA)	(⁵) (⁵)	212,740 (⁵)	xxx xxx	213,779 51,344	(⁵) (⁵)	4.10 1.36	53 36
1092	Mercury ores: 1954..... 1939.....	453 702	372 621	841 1,421	73 (NA)	572 740	30 158	xxx xxx	104 201	135 293	3.99 1.00	31 16
1093	Titanium ores: 1954..... 1939.....	843 196	568 183	1,261 322	39 (NA)	... ...	208 (7)	xxx xxx	522 7177	531 145	8.83 1.15	81 12
1094	Uranium-radium-vanadium ores: 1954..... 1939.....	3,467 441	2,944 378	6,227 879	1,329 (NA)	2,764 293	562 83	xxx xxx	793 41	2,108 451	(NA) 1.19	56 18
1099	Metallic ores, n.e.c. (1954) ⁸	118	98	207	48	43	58	xxx	83	23	(⁹)	(⁹)
11	Anthracite mining, total: 1954..... 1939.....	37,462 88,592	33,026 83,112	48,266 124,462	441 (NA)	27,958 94,899	107,721 106,072	xxx xxx	6,600 11,948	5,987 11,543	4.08 1.24	46 13
1111	Anthracite: 1954..... 1939.....	32,769 85,713	28,823 80,429	42,061 120,085	441 (NA)	27,844 94,560	111,903 111,959	xxx xxx	6,327 11,948	5,987 11,543	3.97 1.22	37 13
1112	Anthracite stripping contract services: 1954..... 1939.....	4,556 2,646	4,074 2,461	6,038 4,038	(NA) (NA)	xxx xxx	115,818 114,113	xxx xxx	220 (11)	xxx xxx	4.82 1.76	106 29
1113	Anthracite contract services, except stripping: 1954..... 1939.....	137 233	129 222	167 339	(NA) (NA)	114 5339	... (5)	xxx xxx	53 (5)	... (5)	3.99 1.41	11 11
12	Bituminous coal and lignite mining, total: 1954..... 1939.....	218,833 390,778	199,655 370,944	325,769 545,702	1,090 (NA)	233,868 436,853	1228,892 13,555	xxx xxx	1363,009 1374,579	(13) (13)	4.35 1.12	32 9
1211	Bituminous coal: 1954..... 1939.....	216,813 388,955	197,819 369,265	322,410 542,310	1,089 (NA)	233,827 435,059	1226,192 12,604	xxx xxx	1362,391 1374,007	(13) (13)	4.33 1.12	31 9
1212	Lignite: 1954..... 1939.....	574 1,595	505 1,480	901 3,027	1 (NA)	41 1,794	545 586	xxx xxx	315 572	... ...	1.01 1.95	148 14
1213	Bituminous coal and lignite mining contract services: 1954..... 1939.....	1,446 228	1,331 199	2,458 365	(NA) (NA)	... (5)	2,155 365	xxx xxx	303 (5)	... (5)	5.09 1.31	123 42

See footnotes at end of table.

MINERAL INDUSTRIES—SUMMARY STATISTICS

Table 1.--EMPLOYMENT, MAN-HOURS, VALUE ADDED PER MAN-HOUR, AND HORSEPOWER PER PRODUCTION WORKER AT MINERAL OPERATIONS IN THE UNITED STATES, BY INDUSTRY GROUP AND INDUSTRY: 1954 AND 1939--Continued

Code No.	Industry group, industry, and year	Number of employees		Man-hours worked by production and development workers (1,000) ¹							Value added per man-hour (dollars)	Horsepower per production worker
		Total	Production and development workers	Total		At mines				At preparation plants		
				All types of work	Development and exploration work only	Underground	Open pit	Well operations	Surface (including mine shops and yards)			
13	Crude petroleum and natural gas extraction, total:											
	1954.....	315,735	235,483	491,718	207,128	xxx	xxx	463,856	xxx	27,862	15.61	85
	1939.....	186,150	148,996	265,028	72,721	xxx	xxx	248,394	xxx	16,634	4.69	34
1312 and 1313	Crude petroleum and Natural gas:											
	1954.....	172,506	109,792	216,581	51,787	xxx	xxx	216,581	xxx	xxx	28.30	83
	1939 ¹⁴	136,051	105,505	190,674	¹⁵ 31,919	xxx	xxx	190,674	xxx	xxx	5.62	32
1314 and 1315	Natural gas liquids:											
	1954.....	17,340	13,560	27,862	xxx	xxx	xxx	xxx	xxx	27,862	(NA)	214
	1939 ¹⁴	10,337	8,332	16,634	xxx	xxx	xxx	xxx	xxx	16,634	(NA)	93
1331	Drilling oil and wells contract services:											
	1954.....	67,976	62,145	133,216	126,050	xxx	xxx	133,216	xxx	xxx	4.68	69
	1939.....	24,224	22,548	38,621	¹⁵ 37,594	xxx	xxx	38,621	xxx	xxx	(NA)	30
1332	Building, repairing, and dismantling rigs and derricks contract services:											
	1954.....	1,632	1,539	1,720	1,446	xxx	xxx	1,720	xxx	xxx	5.55	25
	1939.....	3,736	3,478	3,265	¹⁵ 2,959	xxx	xxx	3,265	xxx	xxx	(NA)	4
1339	Oil and gas field contract services, n.e.c.:											
	1954.....	56,281	48,447	112,339	27,845	xxx	xxx	112,339	xxx	xxx	4.32	78
	1939.....	11,802	9,133	15,834	¹⁵ 249	xxx	xxx	15,834	xxx	xxx	(NA)	26
14	Nonmetallic minerals (except fuels) mining, total:											
	1954: Including operations classified in manufactures.....	133,688	116,561	254,362	10,549	18,316	101,109	3,369	19,060	112,508	5.41	67
	Mineral industries only.	113,428	97,081	214,799	9,692	15,099	76,320	3,369	17,781	102,230	5.50	79
	1939 (Including operations classified in manufactures) ³ ..	90,400	81,287	161,824	(NA)	¹⁶ 14,059	¹⁶ 79,637	¹⁶ 1,037	¹⁶ 10,432	43,589	1.55	29
1412	Mineral industries only: Dimension limestone:											
	1954.....	500	472	872	...	11	786	xxx	75	...	3.37	37
	1939.....	672	617	¹⁷ 1,194	(NA)	(⁵)	⁵ 1,194	xxx	(⁵)	...	1.15	28
1413	Dimension granite:											
	1954.....	967	917	1,769	10	138	1,476	xxx	155	...	2.59	33
	1939 ⁶	1,238	1,163	¹⁷ 2,142	(NA)	(⁵)	⁵ 2,142	xxx	(⁵)	...	1.25	22
1415	Dimension marble:											
	1954.....	637	612	1,245	4	699	544	xxx	2	...	2.32	21
	1939.....	669	652	¹⁷ 1,390	(NA)	(⁵)	⁵ 1,390	xxx	(⁵)	...	0.52	12
1417	Dimension sandstone:											
	1954.....	973	925	1,752	...	...	1,432	xxx	320	...	2.38	30
	1939.....	287	269	¹⁷ 509	(NA)	(⁵)	⁵ 509	xxx	(⁵)	...	0.98	15
1419	Dimension trap rock and Dimension stone, n.e.c.:											
	1954.....	147	142	255	7	...	255	xxx	...	...	2.16	43
	1939.....	24	24	36	(NA)	...	32	xxx	4	...	0.53	40
1422	Crushed and broken limestone (1954) ⁸ .	28,240	24,925	56,335	992	3,787	21,992	xxx	7,343	23,213	4.25	88
1423	Crushed and broken granite:											
	1954.....	2,550	2,344	5,607	473	3	2,543	xxx	455	2,606	3.96	72
	1939.....	2,332	2,100	4,574	(NA)	...	3,078	xxx	115	1,262	1.10	23
1424	Crushed and broken slate:											
	1954.....	533	464	1,198	...	...	259	xxx	...	939	4.22	56
	1939.....	450	407	803	(NA)	9	232	xxx	53	485	1.54	32
1425	Crushed and broken marble:											
	1954.....	431	379	796	12	104	108	xxx	25	559	4.60	34
	1939.....	79	70	127	(NA)	...	106	xxx	2	13	1.26	29
1426	Crushed and broken trap rock:											
	1954.....	3,057	2,680	6,659	738	54	2,972	xxx	560	3,073	5.12	81
	1939 ⁶	2,164	1,886	4,001	(NA)	...	2,440	xxx	180	1,103	1.83	51
1427	Crushed and broken sandstone:											
	1954.....	1,711	1,529	3,283	69	18	1,452	xxx	281	1,532	6.98	71
	1939.....	1,232	1,134	1,990	(NA)	72	1,465	xxx	44	364	1.09	22
1429	Crushed and broken stone, n.e.c.:											
	1954.....	882	803	1,681	8	13	720	xxx	115	833	5.98	79
	1939.....	937	858	1,970	(NA)	66	1,353	xxx	20	506	1.01	24
1441 (part)	Common sand and gravel:											
	1954.....	34,090	28,423	65,600	4,896	144	¹⁸ 28,170	xxx	(¹⁸)	37,286	5.09	108
	1939 ⁶	17,029	14,584	31,324	(NA)	...	¹⁸ 19,403	xxx	(¹⁸)	10,547	1.72	44
1441 (part)	Glass sand:											
	1954.....	1,295	1,144	2,505	3	35	¹⁸ 699	xxx	(¹⁸)	1,771	5.47	48
	1939.....	1,522	1,280	2,667	(NA)	21	¹⁸ 947	xxx	(¹⁸)	1,656	1.73	23
1441 (part)	Foundry sand:											
	1954.....	1,081	966	1,998	9	4	¹⁸ 849	xxx	(¹⁸)	1,145	4.50	90
	1939.....	1,226	1,095	1,794	(NA)	12	¹⁸ 1,250	xxx	(¹⁸)	506	1.92	25
1452	Bentonite:											
	1954.....	634	578	1,340	16	4	415	xxx	8	913	12.20	63
	1939.....	419	357	687	(NA)	56	202	xxx	2	425	2.13	20
1453	Fire clay:											
	1954.....	1,987	1,802	3,123	513	958	1,137	xxx	313	715	5.59	56
	1939 ⁶	3,910	3,655	5,642	(NA)	3,278	1,774	xxx	177	350	1.09	9
1454	Fuller's earth:											
	1954.....	564	510	1,109	42	...	278	xxx	...	831	3.77	46
	1939.....	678	562	1,051	(NA)	...	307	xxx	4	729	1.33	26

See footnotes at end of table.

Table 1.—EMPLOYMENT, MAN-HOURS, VALUE ADDED PER MAN-HOUR, AND HORSEPOWER PER PRODUCTION WORKER AT MINERAL OPERATIONS IN THE UNITED STATES, BY INDUSTRY GROUP AND INDUSTRY: 1954 AND 1939—Continued

Code No.	Industry group, industry, and year	Number of employees		Man-hours worked by production and development workers (1,000) ¹							Value added per man-hour (dollars)	Horse power per production worker
		Total	Production and development workers	Total		At mines				At preparation plants		
				All types of work	Development and exploration work only	Underground	Open pit	Well operations	Surface (including mine shops and yards)			
1455	Nonmetallic minerals (except fuels) mining, total—Continued Kaolin and ball clay:											
	1954.....	3,148	2,820	6,159	140	116	1,404	xxx	427	4,212	4.10	34
	1939.....	3,434	3,168	5,987	(NA)	65	2,041	xxx	200	3,652	0.91	10
1456	Feldspar:											
	1954.....	616	579	1,235	32	143	442	xxx	15	635	3.28	52
	1939 ⁶	566	512	1,016	(NA)	67	890	xxx	38	5	0.85	11
1457	Magnesite and brucite:											
	1954.....	132	121	237	...	...	176	xxx	...	61	5.79	115
	1939.....	228	216	437	(NA)	168	205	xxx	46	16	2.95	8
1459	Clay, ceramic, and refractory minerals, n.e.c. (1954) ⁸	1,151	1,053	2,174	31	84	854	xxx	29	1,207	4.50	57
146	Natural abrasives, except sand:											
	1954.....	285	251	524	2	2	140	xxx	3	379	7.02	57
	1939.....	443	383	798	(NA)	22	418	xxx	10	343	1.40	14
1472	Barite:											
	1954.....	1,125	1,036	2,403	6	469	674	xxx	58	1,202	5.85	65
	1939.....	854	792	1,439	(NA)	57	687	xxx	145	538	1.15	13
1473	Fluorspar:											
	1954.....	1,260	997	2,001	50	826	116	xxx	199	860	4.95	49
	1939 ⁶	1,396	1,287	2,568	(NA)	1,124	5	xxx	348	1,007	1.03	16
1474	Potash, soda, and borate minerals:											
	1954.....	6,322	4,738	9,381	50	3,045	...	xxx	952	5,384	8.76	41
	1939 ⁶	2,438	2,049	4,388	(NA)	555	44	xxx	280	3,471	3.04	30
1475	Phosphate rock:											
	1954.....	5,440	4,579	10,119	303	691	2,941	xxx	1,560	4,927	6.14	78
	1939 ⁶	3,754	3,372	6,680	(NA)	162	1,913	xxx	2,128	2,373	1.35	33
1476	Rock salt:											
	1954.....	1,925	1,659	3,861	12	1,500	45	xxx	533	1,783	7.77	29
	1939.....	1,561	1,380	2,608	(NA)	1,020	19	xxx	407	1,114	2.19	17
1477	Sulfur:											
	1954.....	4,095	3,077	6,229	113	...	33	3,369	2,807	20	19.93	52
	1939 ⁶	2,024	1,517	3,031	(NA)	...	(¹⁹)	¹⁹ 1,037	1,989	4	9.52	30
1479	Chemical and fertilizer mineral mining, n.e.c.:											
	1954.....	1,442	1,209	2,424	242	1,030	241	xxx	291	862	7.46	44
	1939 ²⁰	204	189	348	(NA)	148	32	xxx	101	63	1.32	13
1481	Nonmetallic mineral (except fuels) contract services:											
	1954.....	639	614	1,258	635	(⁵)	²¹ 492	(⁵)	²¹ 766	(⁵)	3.88	63
	1939.....	335	307	632	(NA)	(⁵)	(⁵)	(⁵)	³ 632	(⁵)	1.15	59
1492	Gypsum (1954) ⁸	449	399	926	8	95	467	xxx	26	338	5.78	71
1493	Mica:											
	1954.....	710	668	1,196	40	297	276	xxx	21	602	(⁹)	(⁹)
	1939.....	210	190	361	(NA)	112	136	xxx	...	112	0.76	9
1494	Native asphalt and bitumens:											
	1954.....	551	451	987	21	147	244	xxx	229	367	4.92	69
	1939.....	853	730	1,330	(NA)	183	708	xxx	152	262	1.92	18
1495	Pumice and pumicite:											
	1954.....	267	223	440	8	...	165	xxx	4	271	6.23	115
	1939.....	127	122	197	(NA)	22	71	xxx	...	104	1.53	20
1496	Talc, soapstone, and pyrophyllite:											
	1954.....	1,471	1,297	2,778	138	506	540	xxx	88	1,644	3.41	28
	1939.....	1,137	970	2,068	(NA)	597	153	xxx	35	125	1.18	12
1498	Peat:											
	1954.....	353	321	637	11	...	407	xxx	24	206	2.83	74
	1939 ⁶	184	157	246	(NA)	...	166	xxx	...	80	1.37	18
1497 and 1499	Vermiculite and Nonmetallic minerals, n.e.c.:											
	1954.....	1,768	1,374	2,703	58	176	576	xxx	97	1,854	6.45	55
	1939.....	734	630	1,395	(NA)	63	320	xxx	65	896	1.54	21

NA Not available. xxx Not applicable. ¹For 1954, both the total figures and the detailed figures by department represent all man-hours worked by production and development workers. For 1939, the total figures include, but the detailed figures by department exclude, man-hours worked on inactive days. ²For both 1954 and 1939, the total figures for all mineral industries and those for industry groups and industries represent both producing and nonproducing operations, except as otherwise noted (see footnote 6). ³Total includes, but detail excludes data for nonproducing establishments and central office employees which could not be distributed by industry. ⁴Includes man-hours on floating equipment, such as dredges. ⁵The figure shown represents man-hours for all departments. ⁶Excludes nonproducing operations. ⁷Figures for open-pit are included with those for surface. ⁸Comparable 1939 figures are not available. ⁹Not computed since the number of proprietors and firm members performing manual labor exceeds one-third of the number of production and development workers. ¹⁰Includes man-hours at culm banks and on dredges. ¹¹Data for the Anthracite industry in Northumberland county are included with those for the Anthracite stripping contract services industry. For stripping contractors figures for surface are included with those for open-pit. ¹²Includes figures for auger-mining. ¹³Figures for preparation plants are included with those for surface. ¹⁴Two nonproducing natural gas liquids operations are included with crude petroleum and natural gas operations. ¹⁵Represents man-hours for drilling wells and rig building only. ¹⁶Excludes 239 thousand man-hours worked on active days at mines, quarries, and wells at nonproducing operations. ¹⁷For each group of quarries, represents an estimate based on average hours worked per year per wage earner at all quarries in each respective group. ¹⁸Figures for surface are included with those for open-pit. ¹⁹Figures for open-pit are included with those for well operations. ²⁰Represents the Pyrites industry only. ²¹Somewhat different detail was reported for man-hours of contractors. The figure shown for "Open-pit" represents man-hours for stripping overburden and mining minerals for others; that shown for "Surface" represents man-hours for exploration and other work.

MINERAL INDUSTRIES—SUMMARY STATISTICS

Table 2.—EMPLOYMENT, MAN-HOURS, AND HORSEPOWER PER PRODUCTION WORKER AT MINERAL OPERATIONS IN THE UNITED STATES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954 AND 1939

(Represents all establishments classified in the mineral industries and mining operations at establishments classified in manufacturing and wholesale trade industries.)

Geographic division and State	Number of employees		Man-hours worked by production and development workers (1,000)							Value added per man-hour ¹ (dollars)	Horse- power per produc- tion worker ²
			Total		At mines				At prep- aration plants ³		
	Total ¹	Production and develop- ment workers only ¹	All types of work ¹	Develop- ment and explora- tion work only	Under- ground	Open- pit	Well opera- tions	Surface (including mine shops and yards) ³			
United States, total..1954..	805,968	666,621	1,288,461	239,901	348,396	168,045	467,225	127,735	177,060	9.11	61
1939..	856,389	774,130	1,287,852	(NA)	645,336	109,460	249,431	126,234	103,982	2.15	18
New England.....1954..	5,988	5,232	11,149	805	1,293	4,156	...	717	4,983	4.20	55
1939..	4,944	4,272	8,659	(NA)	(NA)	(NA)	...	(NA)	(NA)	1.08	33
Maine.....1954..	699	653	1,330	23	49	453	...	61	767	3.24	32
1939..	420	379	659	(NA)	(NA)	(NA)	...	(NA)	(NA)	1.72	29
New Hampshire.....1954..	319	285	574	4	108	158	...	9	299	3.33	53
1939..	307	266	535	(NA)	(NA)	(NA)	...	(NA)	(NA)	1.45	25
Vermont.....1954..	2,050	1,881	4,009	47	1,116	1,169	...	306	1,418	3.87	34
1939..	1,695	1,574	3,148	(NA)	(NA)	(NA)	...	(NA)	(NA)	(NA)	20
Massachusetts.....1954..	1,924	1,626	3,382	500	10	1,493	...	225	1,654	4.35	63
1939..	1,568	1,206	2,512	(NA)	(NA)	(NA)	...	(NA)	(NA)	1.84	48
Rhode Island.....1954..	163	140	274	...	5	153	...	...	116	4.05	136
1939..	248	212	435	(NA)	(NA)	(NA)	...	(NA)	(NA)	1.43	33
Connecticut.....1954..	833	647	1,580	231	5	730	...	116	729	5.84	100
1939..	706	635	1,370	(NA)	(NA)	(NA)	...	(NA)	(NA)	1.64	44
Middle Atlantic.....1954..	124,321	108,461	184,141	7,559	88,704	32,418	16,074	11,252	35,693	4.33	46
1939..	219,481	203,871	317,732	(NA)	(NA)	(NA)	16,301	(NA)	(NA)	1.35	14
New York.....1954..	12,364	8,469	18,612	1,341	2,824	5,243	2,265	1,723	6,557	5.63	81
1939..	8,737	7,044	14,682	(NA)	(NA)	(NA)	2,973	(NA)	(NA)	2.23	40
New Jersey.....1954..	4,190	3,543	7,948	245	1,297	2,150	...	568	3,933	4.90	59
1939..	3,978	3,369	6,451	(NA)	(NA)	(NA)	...	(NA)	(NA)	1.72	27
Pennsylvania.....1954..	107,767	96,449	157,581	5,973	84,583	25,025	13,809	8,961	25,203	4.15	43
1939..	206,766	193,458	296,599	(NA)	(NA)	(NA)	13,328	(NA)	(NA)	1.30	12
East North Central.....1954..	86,251	73,815	141,163	18,958	38,402	31,215	25,847	21,153	24,546	6.04	57
1939..	107,980	98,084	161,491	(NA)	(NA)	(NA)	26,649	(NA)	(NA)	1.96	20
Ohio.....1954..	23,742	19,510	37,247	4,613	8,676	12,089	4,014	6,579	5,889	4.94	54
1939..	27,343	24,948	41,312	(NA)	(NA)	(NA)	3,181	(NA)	(NA)	1.26	15
Indiana.....1954..	11,039	9,576	17,863	963	2,967	6,089	2,118	484	6,205	5.50	60
1939..	12,396	11,398	18,542	(NA)	(NA)	(NA)	956	(NA)	(NA)	1.52	21
Illinois.....1954..	30,494	26,964	49,370	9,409	13,407	6,534	16,010	7,683	5,736	7.67	53
1939..	48,887	44,422	68,509	(NA)	(NA)	(NA)	17,560	(NA)	(NA)	2.42	19
Michigan.....1954..	16,693	13,991	28,762	3,741	11,548	3,756	3,705	5,702	4,051	5.32	67
1939..	17,032	15,223	28,951	(NA)	(NA)	(NA)	4,952	(NA)	(NA)	2.24	29
Wisconsin.....1954..	4,283	3,774	7,921	232	1,804	2,747	...	705	2,665	4.88	87
1939..	2,322	2,093	14,177	(NA)	(NA)	(NA)	...	(NA)	(NA)	1.55	35
West North Central.....1954..	54,163	45,589	92,437	18,992	11,369	24,333	27,642	11,074	18,019	8.80	81
1939..	44,982	39,737	70,332	(NA)	(NA)	(NA)	13,993	(NA)	(NA)	3.03	28
Minnesota.....1954..	17,756	14,499	27,923	6,001	2,626	11,934	...	7,311	6,052	10.53	86
1939..	8,145	6,866	13,215	(NA)	(NA)	(NA)	...	(NA)	(NA)	6.93	46
Iowa.....1954..	2,974	2,677	6,049	174	482	3,089	86	305	2,087	4.52	106
1939..	5,928	5,589	8,595	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	1.04	12
Missouri.....1954..	8,854	7,548	15,419	585	4,766	4,648	50	1,572	4,383	4.45	65
1939..	10,861	9,320	16,529	(NA)	(NA)	(NA)	17	(NA)	(NA)	1.27	24
North Dakota.....1954..	1,798	1,399	2,956	1,100	21	564	1,872	252	247	2.42	76
1939..	960	874	1,724	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	1.18	17
South Dakota.....1954..	3,001	2,606	5,872	337	1,911	905	74	1,361	1,621	3.97	51
1939..	2,922	2,647	5,988	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	3.46	17
Nebraska.....1954..	1,734	1,531	3,450	965	418	951	1,024	9	1,048	8.72	103
1939..	531	470	1,041	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	0.89	34
Kansas.....1954..	18,046	15,329	30,768	9,830	1,145	2,242	24,536	264	2,581	11.79	82
1939..	15,635	13,971	23,240	(NA)	(NA)	(NA)	13,976	(NA)	(NA)	2.93	32
South Atlantic.....1954..	111,848	101,328	181,592	4,453	98,526	22,377	8,581	8,241	43,867	4.31	33
1939..	141,898	134,746	211,365	(NA)	(NA)	(NA)	9,741	(NA)	(NA)	1.16	10
Delaware, Maryland, and the District of Columbia.....1954..	2,171	1,944	4,374	78	382	2,116	89	96	1,691	4.70	64
1939..	3,850	3,599	6,090	(NA)	(NA)	(NA)	...	(NA)	(NA)	1.19	12
Virginia.....1954..	16,864	15,123	26,508	555	14,745	3,644	236	3,943	3,940	3.62	27
1939..	20,061	19,010	28,998	(NA)	(NA)	(NA)	...	(NA)	(NA)	0.99	8
West Virginia.....1954..	75,073	68,698	115,644	2,905	81,474	5,110	7,962	400	20,698	4.46	28
1939..	107,260	102,302	156,344	(NA)	(NA)	(NA)	9,741	(NA)	(NA)	1.20	9
North Carolina.....1954..	4,047	3,784	8,337	54	1,404	2,677	...	1,140	3,116	3.98	36
1939..	1,965	1,787	3,720	(NA)	(NA)	(NA)	...	(NA)	(NA)	0.93	15
South Carolina.....1954..	1,518	1,372	3,102	50	146	989	...	139	1,828	3.62	63
1939..	1,388	1,291	2,756	(NA)	(NA)	(NA)	...	(NA)	(NA)	0.87	15
Georgia.....1954..	5,286	4,782	10,490	184	375	3,535	28	483	6,069	3.56	37
1939..	3,906	3,674	7,440	(NA)	(NA)	(NA)	...	(NA)	(NA)	0.79	13
Florida.....1954..	6,889	5,625	13,137	627	...	4,306	266	2,040	6,525	5.23	74
1939..	3,468	3,083	6,017	(NA)	(NA)	(NA)	...	(NA)	(NA)	1.60	38

See footnotes at end of table.

Table 2.—EMPLOYMENT, MAN-HOURS, AND HORSEPOWER PER PRODUCTION WORKER AT MINERAL OPERATIONS IN THE UNITED STATES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954 AND 1939—Continued

Geographic division and State	Number of employees		Man-hours worked by production and development workers (1,000)							Value added per man-hour ¹ (dollars)	Horse- power per produc- tion worker ²
			Total		At mines				At prep- aration plants ³		
	Total ¹	Production and develop- ment workers only ¹	All types of work ¹	Develop- ment and explora- tion work only	Under- ground	Open- pit	Well opera- tions	Surface (including mine shops and yards) ³			
East South Central.....1954..	68,079	61,988	107,058	7,232	58,229	13,125	11,998	3,379	20,327	4.98	32
1939..	93,949	89,522	134,469	(NA)	(NA)	(NA)	2,448	(NA)	(NA)	0.97	8
Kentucky.....1954..	38,917	35,842	59,702	2,717	38,072	3,854	6,870	551	10,355	4.56	26
1939..	53,839	51,452	73,891	(NA)	(NA)	(NA)	2,268	(NA)	(NA)	1.04	6
Tennessee.....1954..	10,181	9,416	17,412	1,172	6,557	5,007	37	1,542	4,269	3.75	39
1939..	12,462	11,723	19,578	(NA)	(NA)	(NA)	44	(NA)	(NA)	0.94	12
Alabama.....1954..	15,136	13,602	23,526	920	13,537	3,467	462	1,276	4,784	4.29	32
1939..	26,953	25,758	39,827	(NA)	(NA)	(NA)	...	(NA)	(NA)	0.85	10
Mississippi.....1954..	3,845	3,128	6,418	2,423	63	797	4,629	10	919	14.78	81
1939..	695	589	1,173	(NA)	(NA)	(NA)	136	(NA)	(NA)	0.92	24
West South Central.....1954..	225,433	166,957	361,436	138,812	4,186	11,481	308,545	5,209	32,015	14.48	83
1939..	122,938	98,687	176,345	(NA)	(NA)	(NA)	139,617	(NA)	(NA)	4.59	33
Arkansas.....1954..	6,131	5,206	10,425	1,493	1,189	2,399	3,756	842	2,239	10.56	69
1939..	7,477	6,926	10,737	(NA)	(NA)	(NA)	5,035	(NA)	(NA)	2.06	20
Louisiana.....1954..	37,209	29,575	65,982	32,108	368	1,344	57,864	1,632	4,774	14.93	80
1939..	14,475	12,244	22,496	(NA)	(NA)	(NA)	19,160	(NA)	(NA)	4.13	28
Oklahoma.....1954..	41,100	30,534	61,532	23,360	2,583	1,985	50,843	759	5,362	9.53	75
1939..	33,312	26,188	46,857	(NA)	(NA)	(NA)	32,357	(NA)	(NA)	3.70	39
Texas.....1954..	140,993	101,642	223,497	81,851	46	5,753	196,082	1,976	19,640	15.85	87
1939..	67,674	53,329	96,255	(NA)	(NA)	(NA)	83,065	(NA)	(NA)	5.42	32
Mountain.....1954..	85,066	69,114	141,253	29,330	43,171	19,613	32,308	21,479	24,682	9.30	68
1939..	74,458	66,711	129,846	(NA)	(NA)	(NA)	8,942	(NA)	(NA)	2.19	22
Montana.....1954..	11,605	8,936	17,478	3,109	8,236	537	4,133	2,481	2,091	4.80	60
1939..	11,961	10,291	19,862	(NA)	(NA)	(NA)	1,335	(NA)	(NA)	1.76	22
Idaho.....1954..	4,781	4,135	8,651	673	5,403	476	2	1,587	1,183	4.48	54
1939..	5,049	4,654	9,753	(NA)	(NA)	(NA)	...	(NA)	(NA)	1.94	18
Wyoming.....1954..	9,745	7,491	14,641	6,036	1,494	590	10,227	699	1,631	17.66	91
1939..	6,848	6,204	10,189	(NA)	(NA)	(NA)	3,406	(NA)	(NA)	3.21	21
Colorado.....1954..	13,690	10,977	21,317	5,265	7,528	1,018	6,080	2,565	4,126	9.74	64
1939..	14,800	13,469	23,356	(NA)	(NA)	(NA)	232	(NA)	(NA)	1.79	15
New Mexico.....1954..	13,934	11,545	23,599	7,734	3,485	2,029	10,554	1,754	5,777	14.33	71
1939..	8,921	8,065	14,817	(NA)	(NA)	(NA)	3,969	(NA)	(NA)	3.02	21
Arizona.....1954..	13,290	11,073	25,286	2,805	8,021	6,204	30	7,105	3,926	7.08	80
1939..	10,389	9,400	22,059	(NA)	(NA)	(NA)	...	(NA)	(NA)	1.84	30
Utah.....1954..	12,685	10,298	19,903	2,471	6,892	5,086	993	3,586	3,346	7.70	48
1939..	10,832	9,529	18,466	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	2.79	29
Nevada.....1954..	5,336	4,659	10,378	1,237	2,112	3,673	289	1,702	2,602	5.28	76
1939..	5,658	5,099	11,344	(NA)	(NA)	(NA)	...	(NA)	(NA)	1.65	21
Pacific.....1954..	44,819	34,137	68,232	13,760	4,516	9,327	36,230	1,715	16,444	20.05	110
1939..	46,399	38,764	77,826	(NA)	(NA)	(NA)	33,515	(NA)	(NA)	4.28	38
Washington.....1954..	3,228	2,647	4,912	167	1,538	1,260	28	355	1,731	5.13	151
1939..	4,248	3,894	6,608	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	1.68	20
Oregon.....1954..	1,487	1,331	2,690	84	98	995	...	168	1,429	4.90	106
1939..	1,476	1,309	2,672	(NA)	(NA)	(NA)	...	(NA)	(NA)	1.42	25
California.....1954..	40,104	30,159	60,630	13,509	2,880	7,072	36,202	1,192	13,284	21.93	106
1939..	40,675	33,561	68,546	(NA)	(NA)	(NA)	33,515	(NA)	(NA)	4.65	41

NA Not available.

¹For 1939, excludes man-hours for dimension stone dressing plants operated in conjunction with quarries. For a measure of the magnitude of such operations in each State, and for details on other slight incomparabilities between the 1939 and 1954 figures, see footnotes to table 1 in the State reports.

²For 1954, excludes horsepower of equipment used at crushed stone, clay, and gypsum operations classified in the manufacturing industries. See also footnote 1.

³For the bituminous coal industry, only combined figures were obtained for man-hours worked at "surface" and at "preparation plants." These combined figures were included with "surface" in the State totals if less than 50 percent of the coal shipped in the State was cleaned; otherwise they were included with "preparation plants."

MINERAL INDUSTRIES—SUMMARY STATISTICS

Table 3.—MONTHLY EMPLOYMENT IN THE MINERAL INDUSTRIES IN THE

	Major industry group and industry	Average employment for the year ¹	Number of employees by month		
			January	February	March
1	All mineral industries, total.....	785,708	(NA)	(NA)	800,748
2	Metal mining, total.....	100,250	103,819	103,091	101,574
3	Iron ores.....	34,170	37,298	36,913	35,965
4	Copper ores.....	27,813	28,979	28,974	28,562
	Lead and zinc ores:				
5	Ores valued chiefly for lead.....	8,720	9,099	8,787	8,542
6	Ores valued chiefly for zinc.....	7,846	8,504	8,433	8,237
	Gold and silver ores:				
7	Lode gold.....	3,020	2,847	2,831	2,903
8	Placer gold.....	556	559	552	560
9	Silver ores.....	1,255	1,164	1,175	1,215
10	Bauxite.....	852	852	837	844
	Ferro-alloy ores, except vanadium:				
11	Manganese ores.....	2,604	2,349	2,429	2,628
12	Tungsten ores.....	2,987	2,659	2,729	2,719
13	Molybdenum ores and Ferro-alloy ores, except vanadium, n.e.c.....	2,487	2,205	2,283	2,320
14	Metal mining contract services.....	3,059	3,168	2,962	2,831
	Miscellaneous metal ores:				
15	Mercury ores.....	453	376	376	386
16	Uranium-radium-vanadium ores.....	3,467	2,895	2,914	2,960
17	Titanium ores and Metallic ores, n.e.c.....	961	865	896	902
18	Anthracite mining, total.....	37,462	48,918	47,350	45,096
19	Anthracite.....	32,769	43,381	41,829	39,715
20	Anthracite stripping contract services.....	4,556	5,347	5,342	5,219
21	Anthracite contract services, except stripping.....	137	190	179	162
22	Bituminous coal and lignite mining, total.....	218,833	254,666	248,627	236,159
23	Bituminous coal.....	216,813	252,467	246,496	234,073
24	Lignite.....	574	631	623	583
25	Bituminous coal and lignite mining contract services.....	1,446	1,568	1,508	1,503
26	Crude petroleum and natural gas extraction, total.....	315,735	(NA)	(NA)	310,788
27	Crude petroleum and natural gas.....	172,506			169,631
28	Natural gas liquids.....	17,340			17,175
29	Drilling oil and gas wells.....	67,976			66,900
30	Building, repairing, and dismantling rigs and derricks.....	1,632			1,692
31	Oil and gas field contract services, n.e.c.....	56,281			55,390
32	Nonmetallic minerals (except fuels) mining, total.....	113,428	103,949	104,407	107,131
	Dimension stone:				
33	Limestone.....	500	395	393	423
34	Granite.....	967	939	940	966
35	Marble.....	637	611	620	625
36	Sandstone.....	973	740	769	831
37	Trap rock and Dimension stone, n.e.c.....	147	114	113	127
	Crushed and broken stone:				
38	Limestone.....	28,240	25,660	25,630	26,590
39	Granite.....	2,550	2,435	2,442	2,461
40	Slate.....	533	506	510	503
41	Marble.....	431	412	396	422
42	Trap rock.....	3,057	2,723	2,728	2,872
43	Sandstone.....	1,711	1,658	1,611	1,585
44	Stone, n.e.c.....	882	733	722	740
	Sand and gravel:				
45	Common sand and gravel.....	34,090	28,194	28,657	30,146
46	Glass sand.....	1,295	1,250	1,252	1,258
47	Foundry sand.....	1,081	1,074	1,069	1,058
	Clay, ceramic, and refractory minerals:				
48	Bentonite.....	634	632	631	628
49	Fire clay.....	1,987	2,111	2,104	2,120
50	Fuller's earth.....	564	545	558	564
51	Kaolin and ball clay.....	3,148	3,162	3,171	3,174
52	Feldspar.....	616	609	626	626
53	Magnesite and brucite.....	132	196	176	75
54	Clay, ceramic, and refractory minerals, n.e.c.....	1,151	1,029	1,038	1,106
55	Natural abrasives, except sand.....	285	262	283	286
	Chemical and fertilizer mineral mining:				
56	Barite.....	1,125	1,093	1,094	1,129
57	Fluorspar.....	1,260	1,645	1,591	1,472
58	Potash, soda, and borate minerals.....	6,322	6,367	6,446	6,429
59	Phosphate rock.....	5,440	5,505	5,503	5,537
60	Rock salt.....	1,925	1,957	1,951	1,898
61	Sulfur.....	4,095	4,185	4,170	4,161
62	Chemical and fertilizer mineral mining, n.e.c.....	1,442	1,436	1,388	1,428
63	Nonmetallic minerals (except fuels) contract services.....	639	583	593	542
	Miscellaneous nonmetallic minerals (except fuels):				
64	Gypsum.....	449	397	406	423
65	Mica.....	710	588	618	656
66	Native asphalt and bitumens.....	551	421	417	450
67	Pumice and pumicite.....	267	250	250	264
68	Talc, soapstone, and pyrophyllite.....	1,471	1,459	1,449	1,453
69	Peat.....	353	287	287	336
70	Vermiculite and Nonmetallic minerals, n.e.c.....	1,768	1,786	1,805	1,767

NA Not available. ¹Represents the sum of the average employment figures for the year as shown in the separate establishment reports. Because of roundings, the sum of such average figures may differ slightly from the average of the January to December totals shown above.

UNITED STATES, BY MAJOR INDUSTRY GROUP AND INDUSTRY: 1954

Number of employees by month—Continued									
April	May	June	July	August	September	October	November	December	
(NA)	779,306	(NA)	(NA)	778,217	(NA)	(NA)	768,220	(NA)	1
99,212	100,729	101,977	102,850	101,387	96,320	95,685	97,937	96,922	2
34,391	35,409	35,178	35,251	34,176	33,835	31,936	30,381	29,196	3
27,589	27,771	28,095	28,140	28,026	25,256	25,779	27,861	28,570	4
8,488	8,495	8,581	8,683	8,654	8,687	8,803	8,825	8,867	5
8,040	7,934	8,039	8,091	7,933	6,530	6,783	7,860	7,711	6
2,947	2,956	3,087	3,162	3,115	3,114	3,084	3,015	2,984	7
587	564	572	587	572	544	523	522	494	8
1,228	1,265	1,301	1,295	1,295	1,271	1,241	1,270	1,285	9
832	832	849	851	855	857	861	857	855	10
2,777	2,850	2,889	2,768	2,594	1,998	2,274	2,821	2,687	11
2,813	2,861	3,016	3,130	3,117	3,192	3,187	3,215	3,013	12
2,380	2,497	2,636	2,729	2,697	2,570	2,511	2,476	2,444	13
2,795	2,834	3,006	3,058	3,088	3,120	3,260	3,304	3,246	14
370	397	409	446	494	496	535	574	570	15
3,055	3,129	3,357	3,675	3,779	3,847	3,905	3,927	3,971	16
920	935	962	984	992	1,003	1,003	1,029	1,029	17
41,293	34,190	32,951	31,566	32,168	31,803	33,886	34,681	35,217	18
36,134	30,271	28,932	27,300	27,893	27,484	29,296	30,073	30,562	19
5,011	3,792	3,911	4,132	4,153	4,190	4,457	4,493	4,561	20
148	127	108	134	122	129	133	115	94	21
218,266	211,389	208,484	203,302	206,030	205,370	207,452	209,467	210,013	22
216,294	209,466	206,591	201,431	204,103	203,426	205,399	207,395	207,971	23
554	501	481	478	498	543	635	654	634	24
1,418	1,422	1,412	1,393	1,429	1,401	1,418	1,418	1,408	25
(NA)	317,309	(NA)	(NA)	319,086	(NA)	(NA)	312,429	(NA)	26
	172,211			175,466			169,964		27
	17,228			17,589			17,272		28
	69,394			67,689			67,921		29
	1,611			1,525			1,658		30
	56,865			56,817			55,614		31
112,223	115,689	118,052	119,576	119,546	118,528	116,281	113,706	108,559	32
531	580	572	569	572	531	489	473	410	33
984	981	975	993	1,003	987	945	937	903	34
643	659	649	642	642	646	641	624	622	35
926	1,007	1,065	1,076	1,115	1,078	1,078	1,001	916	36
137	162	169	170	161	161	159	131	110	37
27,921	28,787	29,158	29,660	29,778	29,641	29,350	28,729	27,354	38
2,470	2,612	2,537	2,585	2,619	2,634	2,620	2,600	2,480	39
527	522	537	554	554	553	545	550	520	40
411	429	431	443	437	450	451	459	439	41
3,099	3,213	3,213	3,211	3,300	3,199	3,097	3,011	2,924	42
1,742	1,764	1,871	1,906	1,840	1,826	1,712	1,598	1,435	43
832	899	945	1,037	1,035	982	918	865	832	44
33,121	35,317	36,709	37,631	37,475	37,103	36,151	34,584	31,732	45
1,244	1,290	1,327	1,331	1,340	1,306	1,299	1,285	1,296	46
1,080	1,071	1,086	1,085	1,110	1,105	1,103	1,097	1,061	47
627	627	661	652	676	647	626	609	599	48
1,969	1,985	1,976	1,927	1,856	1,892	1,939	1,967	1,934	49
563	570	572	572	585	564	555	556	555	50
3,202	3,185	3,168	3,144	3,127	3,129	3,109	3,107	3,109	51
606	603	633	620	606	591	617	627	627	52
138	134	105	126	130	138	102	126	142	53
1,163	1,140	1,199	1,186	1,191	1,213	1,208	1,151	1,154	54
316	313	281	272	273	282	292	294	276	55
1,142	1,170	1,199	1,209	1,209	1,187	833	1,109	1,125	56
1,393	1,113	1,171	1,166	1,141	1,148	1,120	1,077	1,076	57
6,385	6,289	6,304	6,280	6,195	6,220	6,305	6,276	6,333	58
5,590	5,613	5,639	5,570	5,556	5,272	5,142	5,142	5,204	59
1,884	1,890	1,892	1,885	1,904	1,951	1,947	1,973	1,966	60
4,103	4,091	4,194	4,132	4,104	4,041	4,000	3,981	3,976	61
1,439	1,447	1,478	1,453	1,450	1,446	1,438	1,458	1,462	62
567	655	688	710	741	736	668	594	585	63
428	409	425	414	477	493	503	504	503	64
659	680	673	775	774	795	814	791	697	65
520	562	644	653	673	660	603	583	429	66
288	285	277	290	273	271	249	259	247	67
1,442	1,474	1,473	1,477	1,478	1,487	1,498	1,494	1,475	68
372	389	400	403	384	387	379	327	289	69
1,759	1,772	1,756	1,776	1,762	1,776	1,726	1,767	1,762	70

Table 4.—GENERAL STATISTICS FOR ESTABLISHMENTS IN SELECTED MINERAL INDUSTRIES IN THE UNITED STATES CLASSIFIED BY RATIO OF WAGES AND SALARIES TO VALUE ADDED IN MINING: 1954

(For explanation of column captions, see INTRODUCTION)

Industry group, industry, and ratio of wages and salaries to value added in mining	Number of establishments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
All mineral industries, total.....	37,446	14,906,583	11,546,418	647,141	138,567	1,248,898	2,572,297	813,425	2,613,751
Metal mining.....	3,496	11,506,238	11,075,519	81,896	18,354	168,346	353,303	109,722	214,537
Anthracite mining.....	1,436	408,431	196,835	33,026	4,436	48,266	113,932	21,997	8,446
Bituminous coal and lignite mining.....	6,855	2,068,183	1,418,384	199,655	19,178	325,769	764,863	109,442	103,975
Crude petroleum and natural gas extraction.....	17,585	9,341,539	7,673,694	235,483	80,252	491,718	976,595	485,848	2,156,530
Nonmetallic minerals (except fuels) mining.....	8,074	1,582,192	1,181,986	97,081	16,347	214,799	363,604	86,416	130,263
METAL MINING									
Iron ores, total.....	225	547,218	435,668	28,216	35,954	53,288	119,688	37,221	84,260
Less than 0.30.....	78	313,007	271,640	9,593	1,594	18,250	39,838	9,477	23,854
0.30-0.39.....	27	49,005	37,804	2,611	347	4,923	10,506	2,157	5,917
0.40-0.49.....	19	42,661	30,481	2,817	337	5,500	12,445	2,073	3,867
0.50-0.59.....	22	75,729	59,515	6,329	777	11,462	26,260	5,371	2,743
0.60-0.69.....	14	21,168	17,627	2,092	240	4,067	9,695	1,449	5,077
0.70-0.79.....	10	20,751	7,886	1,175	129	2,135	4,993	794	1,323
0.80-0.89.....	5	3,277	2,473	469	32	819	1,822	191	2,138
0.90-0.99.....	4	3,185	2,617	429	45	870	2,165	311	230
1.00 and over.....	34	15,981	4,039	2,701	516	5,262	11,964	2,806	39,006
Unclassified ⁴	12	2,454	1,586	...	...	...	...	...	105
Copper ores, total.....	210	508,729	334,876	21,544	36,269	46,676	98,491	37,574	80,970
Less than 0.30.....	23	321,132	219,896	8,810	1,650	19,482	41,379	8,694	11,719
0.30-0.39.....	8	48,883	26,139	1,590	340	3,296	6,467	1,803	1,664
0.40-0.49.....	7	5,555	8,124	229	545	531	1,071	2,834	5,023
0.50-0.59.....	17	57,600	47,618	4,462	618	9,776	22,175	3,750	2,891
0.60-0.69.....	6	9,348	4,220	527	68	1,161	2,321	382	621
0.70-0.79.....	6	2,516	2,003	272	67	692	1,248	244	739
0.80-0.89.....	7	37,785	9,133	1,334	554	2,757	4,795	2,631	2,691
0.90-0.99.....	4	23,442	16,689	3,052	439	5,969	12,775	2,791	5,013
1.00 and over.....	52	2,200	847	1,268	261	3,012	6,260	1,391	47,878
Unclassified ⁴	80	268	207	...	...	...	...	...	2,731
Lead and zinc ores, total.....	520	175,947	107,409	13,592	32,974	27,554	53,676	37,687	11,072
Less than 0.30.....	32	22,791	11,493	515	65	1,086	2,228	378	429
0.30-0.39.....	24	10,318	8,132	544	74	1,249	2,463	451	470
0.40-0.49.....	27	14,599	11,325	1,165	142	2,404	4,568	696	817
0.50-0.59.....	31	24,652	18,235	2,239	315	4,547	8,349	1,679	1,148
0.60-0.69.....	32	55,998	33,551	4,016	861	8,033	16,341	4,550	2,057
0.70-0.79.....	22	10,238	6,519	1,012	157	2,259	3,964	945	127
0.80-0.89.....	19	21,661	13,972	2,527	379	4,685	9,860	2,170	1,347
0.90-0.99.....	8	8,427	1,415	341	17	792	1,311	57	1,058
1.00 and over.....	140	6,665	2,319	1,233	243	2,499	4,592	1,282	1,622
Unclassified ⁴	185	598	448	...	...	...	...	...	1,997
Ores valued chiefly for lead, total...	343	94,874	62,713	7,156	31,564	14,654	29,549	39,453	4,883
Less than 0.30.....	21	16,590	6,330	277	31	572	1,158	155	296
0.30-0.39.....	15	2,924	2,765	205	13	448	879	66	466
0.40-0.49.....	18	6,790	5,585	573	60	1,221	2,314	275	736
0.50-0.59.....	17	18,823	13,473	1,495	203	3,028	6,135	1,156	701
0.60-0.69.....	20	37,449	27,929	3,337	656	6,674	13,729	3,591	1,046
0.70-0.79.....	8	3,678	2,875	425	35	987	1,815	316	62
0.80-0.89.....	12	5,889	2,686	405	105	813	1,684	556	617
0.90-0.99.....	1	30	17	5	...	12	16	...	1
1.00 and over.....	93	2,201	665	434	129	899	1,819	692	707
Unclassified ⁴	138	500	388	...	...	...	...	...	251
Ores valued chiefly for zinc, total...	177	81,073	44,696	6,436	31,410	12,900	24,127	38,234	6,189
Less than 0.30.....	11	6,201	5,163	238	34	514	1,070	223	133
0.30-0.39.....	9	7,394	5,367	339	61	801	1,584	385	4
0.40-0.49.....	9	7,809	5,740	592	82	1,183	2,254	421	81
0.50-0.59.....	14	5,829	4,762	744	112	1,519	2,214	523	447
0.60-0.69.....	12	18,549	5,622	679	205	1,359	2,612	959	1,011
0.70-0.79.....	14	6,560	3,644	587	122	1,272	2,149	629	65
0.80-0.89.....	7	15,772	11,286	2,122	274	3,872	8,176	1,614	730
0.90-0.99.....	7	8,397	1,398	336	17	780	1,295	57	1,057
1.00 and over.....	47	4,464	1,654	799	114	1,600	2,773	590	915
Unclassified ⁴	47	98	60	...	...	...	...	...	1,746
Lode gold, total.....	298	28,517	21,884	2,634	386	5,894	10,406	1,863	1,987
Less than 0.30.....	7	933	627	44	6	88	164	15	14
0.30-0.39.....	4								
0.40-0.49.....	9								
0.50-0.59.....	8	23,069	17,942	1,712	264	3,863	7,245	1,353	1,081
0.60-0.69.....	4								
0.70-0.79.....	2	1,491	1,021	193	24	436	634	94	61
0.80-0.89.....	8								
0.90-0.99.....	3	447	574	104	12	236	410	80	336
1.00 and over.....	118	2,287	1,428	581	80	1,271	1,953	321	378
Unclassified ⁴	135	290	292	...	...	...	...	...	117

See footnotes at end of table.

Table 4.—GENERAL STATISTICS FOR ESTABLISHMENTS IN SELECTED MINERAL INDUSTRIES IN THE UNITED STATES CLASSIFIED BY RATIO OF WAGES AND SALARIES TO VALUE ADDED IN MINING: 1954—Continued

(For explanation of column captions, see INTRODUCTION)

Industry group, industry, and ratio of wages and salaries to value added in mining	Number of establishments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)								
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)									
METAL MINING—Continued																	
Placer gold, total.....	136	5,916	3,614	501	55	1,255	1,997	314	353								
Less than 0.30.....	2	56	54	5	...	9	15	...	12								
0.30-0.39.....	3																
0.40-0.49.....	2																
0.50-0.59.....	5	150	114	17	1	35	49	5	20								
0.60-0.69.....	4																
0.70-0.79.....	3																
0.80-0.89.....	3	4,712	2,936	384	34	994	1,588	225	111								
1.00 and over.....	25									740	308	57	4	145	233	19	37
Unclassified ⁴	89									41	(⁵)	38	16	72	112	65	91
		217	216	...	...	...	...	...	82			
Silver ores, total.....	101	12,148	9,856	1,065	³ 190	2,214	5,003	³ 1,035	955								
Less than 0.30.....	3	366	289	14	70	32	60	432	16								
0.30-0.39.....	5	173	141	15		34	51										
0.40-0.49.....	4	8,857	7,699	677		1,382	3,201										
0.50-0.59.....	6																
0.60-0.69.....	4																
0.70-0.79.....	1	1,189	761	128	15	260	646	63	254								
0.80-0.89.....	...																
0.90-0.99.....	2																
1.00 and over.....	33	1,409	896	231	27	506	1,045	101	318								
Unclassified ⁴	43	154	70	...	...	...	...	...	122			
Bauxite, total.....	25	16,819	12,827	661	191	1,288	2,529	1,052	306								
Less than 0.30.....	13	8,760	7,339	309	78	591	1,186	445	198								
0.30-0.39.....	4	6,913	5,204	251	93	499	962	487	68								
0.40-0.49.....	2																
0.50-0.59.....	1				64			8	120	243	48						
0.60-0.69.....	1	1,146	284	37		78	138										
0.70-0.79.....	2						72	...									
0.80-0.99.....	...																
1.00 and over.....	2																
Manganese ores, total.....	367	32,398	18,118	2,266	³ 338	4,293	7,643	³ 1,649	2,681								
Less than 0.30.....	41	5,094	3,478	320	5	492	740	6	606								
0.30-0.39.....	21	8,372	4,856	265	82	564	1,114	477	188								
0.40-0.49.....	20	2,149	1,567	218	10	400	635	55	369								
0.50-0.59.....	15	2,117	1,490	193	21	441	688	116	56								
0.60-0.69.....	9	651	576	127	10	271	333	22	327								
0.70-0.79.....	10	527	494	101	4	200	350	15	169								
0.80-0.89.....	4	2,677	1,293	210	42	401	855	279	66								
0.90-0.99.....	3	3,156	2,313	525	74	924	1,847	300	189								
1.00 and over.....	42	5,205	696	307	72	600	1,081	315	605								
Unclassified ⁴	202	2,450	1,355	...	...	...	...	...	106			
Tungsten ores, total.....	549	60,737	40,744	2,635	352	6,327	13,148	1,610	5,659								
Less than 0.30.....	39	21,550	16,860	794	58	1,864	3,454	365	1,330								
0.30-0.39.....	21	13,119	9,642	580	80	1,460	2,907	430	720								
0.40-0.49.....	11	13,873	6,482	383	147	974	2,378	483	1,165								
0.50-0.59.....	23	6,626	3,649	298	17	731	1,810	92	792								
0.60-0.69.....	12	2,301	1,649	154	21	377	885	123	481								
0.70-0.79.....	8	210	215	42	4	82	150	14	57								
0.80-0.89.....	7	915	969	165	7	405	785	41	498								
0.90-0.99.....	2																
1.00 and over.....	77																
Unclassified ⁴	349	735	214	219	18	434	779	62	438								
		1,408	1,064	...	...	...	...	...	178			
Molybdenum ores and Ferro-alloy ores, except vanadium, n.e.c.....	170	60,536	48,537	1,937	³ 550	4,502	10,539	³ 3,946	5,731								
Less than 0.30.....	19	59,521	47,640	1,243	269	2,930	7,144	1,907	3,427								
0.30-0.39.....	7																
0.40-0.49.....	8				103	1,280	2,831	648	1,500								
0.50-0.59.....	8	278	215	33													
0.60-0.69.....	7			8				119	79								
0.70-0.79.....	4	97	214	26		53	123										
0.80-0.89.....	2						51	427									
0.90-0.99.....	...	...	...	...	...	...			...
1.00 and over.....	18	271	147	80	11	175	322	50	188								
Unclassified ⁴	97	369	321	...	...	...	...	...	110			
Mercury ores, total.....	87	4,519	3,355	372	³ 81	841	1,607	³ 365	459								
Less than 0.30.....	4	90	88	5	...	8	14	...	13								
0.30-0.39.....	1	2,545	2,190	184	57	419	844	252	115								
0.40-0.49.....	1																
0.50-0.59.....	3																
0.60-0.69.....	1	1,687	964	146	...	344	615	...	205								
0.70-0.79.....	1																
0.80-0.89.....	1																
0.90-0.99.....	1	60	(5)	37	14	70	134	63	64								
1.00 and over.....	22																
Unclassified ⁴	52	137	141	...	...	...	...	...	62			

See footnotes at end of table.

Table 4.—GENERAL STATISTICS FOR ESTABLISHMENTS IN SELECTED MINERAL INDUSTRIES IN THE UNITED STATES CLASSIFIED BY RATIO OF WAGES AND SALARIES TO VALUE ADDED IN MINING: 1954—Continued

(For explanation of column captions, see INTRODUCTION)

Industry group, industry, and ratio of wages and salaries to value added in mining	Number of establishments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
METAL MINING—Continued									
Titanium ores and Metallic ores, n.e.c., total.....	57	14,075	11,928	666	295	1,468	2,735	1,411	4,434
Less than 0.30.....	8	1,341	2,899	35	131	77	128	541	3,666
0.30-0.39.....	3	9,727	7,238	398	88	871	1,752	484	435
0.40-0.49.....	1								
0.50-0.59.....	5								
0.60-0.69.....	1	2,636	1,617	151	58	357	576	294	168
0.80-0.89.....	1								
0.90-0.99.....	4								
1.00 and over.....	8	300	154	43	9	87	106	36	69
Unclassified ⁴	26	3	(⁵)	39	9	76	173	56	81
		68	52	...	...	...	...	...	15
ANTHRACITE MINING									
Anthracite, total.....	1,291	365,536	167,090	28,823	³ 3,946	42,061	98,678	³ 19,392	6,953
Less than 0.30.....	73	21,426	9,644	692	45	1,026	2,210	160	930
0.30-0.39.....	54	13,485	6,535	588	64	984	1,903	355	456
0.40-0.49.....	74	23,660	10,897	1,122	149	1,904	4,007	898	487
0.50-0.59.....	78	33,314	20,452	2,675	266	4,301	10,077	1,059	560
0.60-0.69.....	85	37,439	17,539	2,656	256	4,371	9,894	1,008	1,285
0.70-0.79.....	68	38,644	23,539	4,420	348	6,649	15,509	1,747	660
0.80-0.89.....	64	65,617	28,378	6,707	431	8,935	21,599	2,254	811
0.90-0.99.....	37	23,486	11,441	2,857	218	4,088	9,730	1,039	106
1.00 and over.....	106	68,286	21,763	7,106	612	9,803	23,749	2,689	1,177
Unclassified ⁴	652	40,179	16,902	...	...	...	...	...	481
BITUMINOUS COAL AND LIGNITE MINING									
Bituminous coal, total.....	6,643	2,040,200	1,396,774	197,819	³ 18,994	322,410	757,175	³ 108,474	101,379
Less than 0.30.....	664	147,530	84,388	4,883	374	8,376	17,222	1,884	4,898
0.30-0.39.....	588	247,213	156,588	11,769	1,272	21,098	47,938	6,970	12,358
0.40-0.49.....	664	248,365	177,467	17,271	1,504	30,321	71,488	8,382	15,668
0.50-0.59.....	960	342,360	256,876	31,654	2,567	53,192	126,054	14,687	15,166
0.60-0.69.....	913	393,296	283,933	42,777	3,014	69,948	165,894	18,069	27,863
0.70-0.79.....	738	239,243	183,140	33,552	2,423	52,585	122,766	13,351	9,258
0.80-0.89.....	514	216,678	151,404	29,365	2,482	47,585	112,912	13,702	8,558
0.90-0.99.....	226	92,986	54,615	12,618	1,040	18,879	45,719	5,096	1,451
1.00 and over.....	831	103,066	43,072	13,881	1,241	20,411	47,182	6,260	6,045
Unclassified ⁴	545	9,463	5,291	49	...	15	...	...	114
Lignite, total.....	60	10,387	9,093	505	69	901	2,177	411	628
Less than 0.30.....	16	5,846	5,421	200	31	354	913	172	478
0.30-0.39.....	13	2,158	1,886	143	15	256	575	64	95
0.40-0.49.....	5	1,769	1,396	97	15	164	490	150	18
0.50-0.59.....	5	137	82	16	...	25	43	...	18
0.60-0.69.....	9	270	209	32	8	69	105	25	5
0.70-0.79.....	2	159	62	17	...	32	51	...	6
1.00 and over.....	2								
Unclassified ⁴	8	48	37	...	...	1	...	...	8
NONMETALLIC MINERALS (EXCEPT FUELS) MINING									
Dimension limestone, total.....	65	3,754	2,942	472	28	872	1,429	127	89
Less than 0.30.....	4	179	158	14	2	18	31	8	...
0.30-0.39.....	9	1,202	1,044	95	13	204	296	54	7
0.40-0.49.....	4	150	109	36	...	39	50	...	6
0.50-0.59.....	19	821	673	127	3	246	375	20	6
0.60-0.69.....	8	1,022	654	104	8	203	387	37	54
0.70-0.79.....	3	283	246	60	1	105	195	4	...
0.80-0.89.....	1								
0.90-0.99.....	1								
1.00 and over.....	7	58	23	36	1	57	95	4	16
Unclassified ⁴	9	39	35	...	...	...	...	...	...
Dimension granite, total.....	86	5,738	4,590	917	50	1,769	2,404	235	192
Less than 0.30.....	6	826	704	64	...	122	150	...	3
0.30-0.39.....	8	398	349	43	1	86	121	4	5
0.40-0.49.....	8	546	461	78	3	146	191	13	30
0.50-0.59.....	13	1,072	904	164	18	327	414	97	35
0.60-0.69.....	14	1,461	1,141	219	15	448	649	72	62
0.70-0.79.....	8	595	462	130	3	248	332	12	6
0.80-0.89.....	7	479	319	108	2	199	257	10	15
0.90-0.99.....	3	193	165	50	7	84	127	25	10
1.00 and over.....	15	155	74	61	1	109	163	2	26
Unclassified ⁴	4	13	11	...	...	...	...	...	...

See footnotes at end of table.

Table 4.—GENERAL STATISTICS FOR ESTABLISHMENTS IN SELECTED MINERAL INDUSTRIES IN THE UNITED STATES CLASSIFIED BY RATIO OF WAGES AND SALARIES TO VALUE ADDED IN MINING: 1954—Continued

(For explanation of column captions, see INTRODUCTION)

Industry group, industry, and ratio of wages and salaries to value added in mining	Number of establish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and de- velopment workers (1,000)	Wages and salaries		New capital expendi- tures (\$1,000)
				Production and de- velopment workers	All other employees		Production and de- velopment workers (\$1,000)	All other employees (\$1,000)	
NONMETALLIC MINERALS (EXCEPT FUELS) MINING—Continued									
Dimension marble, total.....	30	3,491	2,893	612	25	1,245	1,505	135	58
Less than 0.30.....	5	1,028	787	79	...	158	194	...	36
0.30-0.39.....	2								
0.40-0.49.....	4	329	274	49	1	100	124	3	8
0.50-0.59.....	2								
0.60-0.69.....	5	1,578	1,378	320	15	682	836	77	5
0.70-0.79.....	2	363	285	97	4	188	216	15	3
0.80-0.89.....	5								
1.00 and over.....	4	193	169	67	5	117	135	40	6
Unclassified ⁴	1								
Dimension sandstone, total.....	115	5,292	4,178	925	48	1,752	2,273	183	372
Less than 0.30.....	15	716	603	70	5	126	135	12	19
0.30-0.39.....	13	480	441	51	2	114	149	5	58
0.40-0.49.....	8	384	229	33	2	69	93	6	11
0.50-0.59.....	21	701	621	147	2	273	320	4	21
0.60-0.69.....	12	692	583	167	9	297	333	55	117
0.70-0.79.....	9	1,237	1,008	261	7	481	721	35	30
0.80-0.89.....	9	557	426	107	15	229	319	55	64
0.90-0.99.....	2								
1.00 and over.....	15	319	153	89	6	163	203	11	52
Unclassified ⁴	11	206	114	...	...	...	...	...	...
Dimension trap rock and Dimension stone, n.e.c., total.....	55	670	552	142	5	255	327	7	25
Less than 0.30.....	2	108	92	16	2	25	31	3	5
0.30-0.39.....	6								
0.40-0.49.....	1	251	210	60	...	101	117	...	10
0.50-0.59.....	14								
0.60-0.69.....	8	68	57	16	...	32	36	...	1
0.70-0.79.....	6	185	148	32	...	67	106	...	1
0.80-0.89.....	1								
1.00 and over.....	9	36	30	18	3	30	37	4	4
Unclassified ⁴	8	22	15	...	...	...	...	...	4
Crushed and broken limestone, total.....	1,447	328,757	239,604	24,925	3,315	56,335	90,715	17,103	28,010
Less than 0.30.....	270	67,534	54,041	3,081	275	7,292	11,421	1,076	7,672
0.30-0.39.....	224	68,343	53,509	4,215	483	9,744	16,082	2,660	4,216
0.40-0.49.....	245	72,058	52,248	5,210	798	12,010	19,805	4,211	6,029
0.50-0.59.....	232	59,334	42,662	5,278	656	11,738	19,123	3,957	4,520
0.60-0.69.....	116	20,883	14,088	2,107	373	4,940	7,200	1,727	1,241
0.70-0.79.....	96	16,822	10,513	1,814	266	3,921	6,469	1,329	1,577
0.80-0.89.....	56	11,303	7,372	1,612	163	3,063	5,252	880	851
0.90-0.99.....	34	4,945	2,610	563	91	1,243	1,973	459	210
1.00 and over.....	118	6,983	2,274	1,045	210	2,384	3,390	804	1,679
Unclassified ⁴	56	552	287	...	...	...	...	...	15
Crushed and broken granite, total.....	101	30,875	22,201	2,344	206	5,607	7,573	1,306	2,698
Less than 0.30.....	26	10,304	8,203	490	44	1,165	1,565	283	921
0.30-0.39.....	12	5,376	3,750	408	23	974	1,216	120	195
0.40-0.49.....	13	6,563	4,861	578	68	1,453	1,872	409	887
0.50-0.59.....	15	5,249	3,534	480	36	1,195	1,663	307	492
0.60-0.69.....	11	1,459	1,059	179	12	401	599	65	54
0.70-0.79.....	1	793	525	120	5	247	397	22	19
0.80-0.89.....	7								
0.90-0.99.....	1	546	221	89	18	172	261	100	97
1.00 and over.....	8								
Unclassified ⁴	7	585	48	...	...	...	...	...	33
Crushed and broken slate, total.....	11	8,162	5,055	464	69	1,198	1,949	420	312
Less than 0.30.....	1	8,162	5,055	464	69	1,198	1,949	420	312
0.30-0.39.....	1								
0.40-0.49.....	3	8,162	5,055	464	69	1,198	1,949	420	312
0.50-0.59.....	1								
0.60-0.69.....	1	402	305	51	12	103	189	53	21
0.70-0.79.....	1								
0.80-0.89.....	3	402	305	51	12	103	189	53	21
0.90-0.99.....	1								
1.00 and over.....	1	402	305	51	12	103	189	53	21
0.90-0.99.....	1								
1.00 and over.....	1	402	305	51	12	103	189	53	21
0.90-0.99.....	1								
1.00 and over.....	1	402	305	51	12	103	189	53	21
0.90-0.99.....	1								
1.00 and over.....	1	402	305	51	12	103	189	53	21
0.90-0.99.....	1								
1.00 and over.....	1	402	305	51	12	103	189	53	21
0.90-0.99.....	1								
1.00 and over.....	1	402	305	51	12	103	189	53	21
0.90-0.99.....	1								
1.00 and over.....	1	402	305	51	12	103	189	53	21
0.90-0.99.....	1								
1.00 and over.....	1	402	305	51	12	103	189	53	21
0.90-0.99.....	1								
1.00 and over.....	1	402	305	51	12	103	189	53	21
0.90-0.99.....	1								
1.00 and over.....	1	402	305	51	12	103	189	53	21
0.90-0.99.....	1								
1.00 and over.....	1	402	305	51	12	103	189	53	21
0.90-0.99.....	1								
1.00 and over.....	1	402	305	51	12	103	189	53	21
0.90-0.99.....	1								
1.00 and over.....	1	402	305	51	12	103	189	53	21
0.90-0.99.....	1								
1.00 and over.....	1	402	305	51	12	103	189	53	21
0.90-0.99.....	1								
1.00 and over.....	1	402	305	51	12	103	189	53	21
0.90-0.99.....	1								
1.00 and over.....	1	402	305	51	12	103	189	53	21
0.90-0.99.....	1								
1.00 and over.....	1	402	305	51	12	103	189	53	21
0.90-0.99.....	1								
1.00 and over.....	1	402	305	51	12	103	189	53	21
0.90-0.99.....	1								
1.00 and over.....	1	402	305	51	12	103	189	53	21
0.90-0.99.....	1								
1.00 and over.....	1	402	305	51	12	103	189	53	21
0.90-0.99.....	1								
1.00 and over.....	1	402	305	51	12	103	189	53	21
0.90-0.99.....	1								
1.00 and over.....	1	402	305	51	12	103	189	53	21
0.90-0.99.....	1								
1.00 and over.....	1	402	305	51	12	103	189	53	21
0.90-0.99.....	1								
1.00 and over.....	1	402	305	51	12	103	189	53	21
0.90-0.99.....	1								
1.00 and over.....	1	402	305	51	12	103	189	53	21
0.90-0.99.....	1								
1.00 and over.....	1	402	305	51	12	103	189	53	21
0.90-0.99.....	1								
1.00 and over.....	1	402	305	51	12	103	189	53	21
0.90-0.99.....	1								
1.00 and over.....	1	402	305	51	12	103	189	53	21
0.90-0.99.....	1								
1.00 and over.....	1	402	305	51	12	103	189	53	21
0.90-0.99.....	1								
1.00 and over.....	1	402	305	51	12	103	189	53	21
0.90-0.99.....	1								
1.00 and over.....	1	402	305	51	12	103	189	53	21
0.90-0.99.....	1								
1.00 and over.....	1	402	305	51	12	103	189	53	21
0.90-0.99.....	1								
1.00 and over.....	1	402	305	51	12	103	189	53	21
0.90-0.99.....	1								
1.00 and over.....	1	402	305	51	12	103	189	53	21
0.90-0.99.....	1								
1.00 and over.....	1	402	305	51	12	103	189	53	21
0.90-0.99.....	1								
1.00 and over.....	1	402	305	51	12	103	189	53	21
0.90-0.99.....	1								
1.00 and over.....	1	402	305	51	12	103	189	53	21
0.90-0.99.....	1								
1.00 and over.....	1	402	305	51	12	103	189	53	21
0.90-0.99.....	1								
1.00 and over.....	1	402	305	51	12	103	189	53	21
0.90-0.99.....	1								
1.00 and over.....	1	402	305	51	12	103	189	53	21
0.90-0.99.....	1								
1.00 and over.....	1	402	305	51	12	103	189	53	21
0.90-0.99.....	1								
1.00 and over.....	1	402	305	51	12	103	189	53	21
0.90-0.99.....	1								
1.00 and over.....	1	402	305	51	12	103	189	53	21
0.90-0.99.....	1								
1.00 and over.....	1	402	305	51	12	103	189	53	21
0.90-0.99.....	1								
1.00 and over.....	1	402	305	51	12	103	189	53	21
0.90-0.99.....	1								
1.00 and over.....	1	402	305	51	12	103	189	53	21
0.90-0.99.....	1								
1.00 and over.....	1	402	305	51	12	103	189	53	21
0.90-0.99.....	1								
1.00 and over.....	1	402	305	51	12	103	189	53	21
0.90-0.99.....	1								
1.00 and over.....	1	402	305	51	12	103	189	53	21
0.90-0.99.....	1								
1.00 and over.....	1	402	305	51	12	103	189	53	21
0.90-0.99.....	1								
1.00 and over.....	1	402	305	51	12	103	189	53	21
0.90-0.99.....	1								
1.00 and over.....	1	402	305	51	12	103	189	53	21
0.90-0.99.....	1								
1.00 and over.....	1	402	305	51	12	103	189	53	21
0.90-0.99.....	1								
1.00 and over.....	1	402	305	51	12	103	189	53	21
0.90-0.99.....	1								
1.00 and over.....									

See footnotes at end of table.

MINERAL INDUSTRIES—SUMMARY STATISTICS

Table 4.—GENERAL STATISTICS FOR ESTABLISHMENTS IN SELECTED MINERAL INDUSTRIES IN THE UNITED STATES CLASSIFIED BY RATIO OF WAGES AND SALARIES TO VALUE ADDED IN MINING: 1954—Continued

(For explanation of column captions, see INTRODUCTION)

Industry group, industry, and ratio of wages and salaries to value added in mining	Number of establishments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
NONMETALLIC MINERALS (EXCEPT FUELS) MINING—Continued									
Crushed and broken trap rock, total.....	142	45,471	34,127	2,680	377	6,659	12,089	2,116	3,161
Less than 0.30.....	21	11,460	9,724	281	57	692	1,370	324	576
0.30-0.39.....	25	9,567	7,514	504	112	1,353	2,291	587	915
0.40-0.49.....	28	9,909	7,118	628	117	1,496	2,721	716	643
0.50-0.59.....	24	8,499	6,425	720	36	1,843	3,386	197	442
0.60-0.69.....	10	2,013	1,217	158	13	394	699	75	151
0.70-0.79.....	5	989	723	105	13	266	480	65	25
0.80-0.89.....	6	1,313	706	122	15	287	543	78	200
0.90-0.99.....	2								
1.00 and over.....	12	1,079	342	127	12	249	424	55	209
Unclassified ⁴	9	642	358	35	2	79	175	19	...
Crushed and broken sandstone, total.....	87	31,190	22,913	1,529	182	3,283	5,970	1,084	4,479
Less than 0.30.....	15	18,465	14,332	489	69	1,077	2,156	420	3,559
0.30-0.39.....	10	3,546	3,047	238	26	449	951	191	408
0.40-0.49.....	11	2,449	1,672	172	24	427	671	99	176
0.50-0.59.....	13	3,129	1,640	215	22	465	732	172	153
0.60-0.69.....	7	945	679	120	6	243	396	41	59
0.70-0.79.....	10	1,025	701	163	6	290	504	24	28
0.80-0.89.....	8	1,286	772	122	27	309	512	131	81
1.00 and over.....	4	53	35	10	2	23	48	6	15
Unclassified ⁴	9	292	35	...	...	...	...	...	...
Crushed and broken stone, n.e.c., total..	95	15,657	10,050	803	79	1,681	3,083	419	576
Less than 0.30.....	21	9,936	6,142	296	56	616	1,072	302	86
0.30-0.39.....	9	2,042	1,513	118	7	248	497	44	138
0.40-0.49.....	11	659	517	62	2	128	224	4	129
0.50-0.59.....	18	544	431	67	2	144	228	4	18
0.60-0.69.....	8	1,099	659	75	7	181	380	39	101
0.70-0.79.....	2	734	562	117	2	246	468	8	12
0.80-0.89.....	3								
0.90-0.99.....	1	338	147	68	3	118	214	18	18
1.00 and over.....	14								
Unclassified ⁴	8	305	79	...	...	...	...	...	74
Common sand and gravel, total.....	3,756	435,662	334,046	28,423	5,667	65,600	111,600	26,958	36,247
Less than 0.30.....	797	117,714	103,696	4,696	661	10,503	18,274	2,755	8,868
0.30-0.39.....	562	103,866	81,445	5,530	1,038	12,964	22,596	5,057	7,001
0.40-0.49.....	509	72,372	56,130	5,235	795	12,214	20,672	3,965	6,335
0.50-0.59.....	422	55,920	39,844	4,290	852	10,122	16,895	4,481	4,384
0.60-0.69.....	240	30,339	20,852	2,607	601	6,237	10,556	2,700	2,552
0.70-0.79.....	159	17,063	10,882	1,610	440	3,625	6,166	1,983	1,185
0.80-0.89.....	119	11,210	7,273	1,247	284	2,944	4,863	1,260	1,519
0.90-0.99.....	55	6,203	3,857	628	193	1,394	2,457	1,119	726
1.00 and over.....	436	17,236	7,799	2,580	803	5,597	9,121	3,638	3,453
Unclassified ⁴	457	3,739	2,268	...	...	...	...	...	224
Glass sand, total.....	44	18,591	13,701	1,144	151	2,505	4,279	819	1,081
Less than 0.30.....	9	3,208	2,722	100	20	217	452	146	147
0.30-0.39.....	13	9,128	6,563	467	57	1,053	1,820	335	226
0.40-0.49.....	6	4,049	3,137	314	30	700	1,285	163	339
0.50-0.59.....	2	1,774	1,038	194	34	372	515	141	325
0.60-0.69.....	2								
0.70-0.79.....	2	418	229	69	10	163	207	34	44
0.80-0.89.....	1								
0.90-0.99.....	1	14	12	...	...	...	...	...	...
1.00 and over.....	5								
Unclassified ⁴	3	14	12	...	...	...	...	...	...
Foundry sand, total.....	131	11,762	8,982	966	115	1,998	3,087	570	745
Less than 0.30.....	29	2,583	2,191	143	14	290	450	49	235
0.30-0.39.....	24	4,520	3,515	295	37	607	1,009	252	250
0.40-0.49.....	18	2,263	1,773	220	14	467	728	72	89
0.50-0.59.....	14	*739	521	70	12	159	239	49	49
0.60-0.69.....	9	328	243	60	4	108	144	10	17
0.70-0.79.....	3	269	184	23	4	46	77	21	5
0.80-0.89.....	1								
0.90-0.99.....	4	450	280	80	9	202	267	32	29
1.00 and over.....	17	413	170	75	21	119	173	85	69
Unclassified ⁴	12	197	105	...	...	...	...	...	2
Bentonite, total.....	43	21,830	16,350	578	56	1,340	1,920	215	488
Less than 0.30.....	22	20,049	15,210	466	47	1,088	1,565	189	441
0.30-0.39.....	6	1,225	825	88	5	203	273	17	27
0.50-0.59.....	1	556	315	24	4	49	82	9	20
0.60-0.69.....	2								
1.00 and over.....	6	556	315	24	4	49	82	9	20
Unclassified ⁴	6								

See footnotes at end of table.

Table 4.—GENERAL STATISTICS FOR ESTABLISHMENTS IN SELECTED MINERAL INDUSTRIES IN THE UNITED STATES CLASSIFIED BY RATIO OF WAGES AND SALARIES TO VALUE ADDED IN MINING: 1954—Continued

(For explanation of column captions, see INTRODUCTION)

Industry group, industry, and ratio of wages and salaries to value added in mining	Number of establish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and de- velopment workers (1,000)	Wages and salaries		New capital expendi- tures (\$1,000)
				Production and de- velopment workers	All other employees		Production and de- velopment workers (\$1,000)	All other employees (\$1,000)	
NONMETALLIC MINERALS (EXCEPT FUELS) MINING—Continued									
Fire clay, total.....	248	22,206	17,468	1,802	185	3,123	5,670	928	1,188
Less than 0.30.....	63	10,343	8,579	377	17	714	1,293	66	497
0.30-0.39.....	23	1,380	1,069	102	20	178	283	95	74
0.40-0.49.....	21	1,617	1,267	162	8	298	524	58	161
0.50-0.59.....	31	2,821	2,287	321	47	552	992	229	106
0.60-0.69.....	12	732	571	105	9	168	323	49	27
0.70-0.79.....	19	1,528	1,012	191	19	339	642	111	226
0.80-0.89.....	14	1,834	1,485	372	31	578	1,099	148	(D)
0.90-0.99.....	5	359	276	68	7	117	232	31	(D)
1.00 and over.....	24	450	289	104	27	179	282	141	37
Unclassified ⁴	36	1,142	633	...	...	...	...	...	43
Fuller's earth, total.....	16	6,012	4,179	510	54	1,109	1,381	363	497
Less than 0.30.....	2	132	114	8	...	14	28	...	...
0.30-0.39.....	5	3,912	2,865	265	46	575	774	288	284
0.50-0.59.....	4	1,558	1,036	196	3	407	464	58	146
0.70-0.79.....	2	382	150	38	4	105	98	15	35
1.00 and over.....	2	14	12	3	1	8	17	2	32
Unclassified ⁴	1	14	2	...	...	...	...	...	...
Kaolin and ball clay, total.....	54	31,892	25,249	2,820	328	6,159	8,115	1,828	4,291
Less than 0.30.....	14	6,086	4,685	299	22	614	948	84	130
0.30-0.39.....	12	12,059	10,171	910	129	1,973	2,787	739	1,710
0.40-0.49.....	4	8,295	6,753	773	120	1,763	2,366	690	1,609
0.50-0.59.....	8	3,655	2,542	452	42	992	1,183	238	551
0.60-0.69.....	4	1,423	978	311	11	666	670	65	128
0.70-0.79.....	2								
0.80-0.89.....	2								
1.00 and over.....	4	319	77	75	4	151	161	12	163
Unclassified ⁴	4	55	43	...	...	...	...	...	...
Feldspar, total.....	84	6,669	4,048	579	37	1,235	1,523	199	389
Less than 0.30.....	11	2,205	1,440	98	7	205	270	48	42
0.30-0.39.....	5	387	190	31	...	62	67	...	7
0.40-0.49.....	4	467	297	51	1	116	126	4	12
0.50-0.59.....	5	702	506	88	6	188	234	35	32
0.60-0.69.....	9	2,093	1,104	222	13	472	609	77	114
0.70-0.79.....	4	153	119	26	5	54	66	19	3
1.00 and over.....	13	332	112	63	5	138	151	16	171
Unclassified ⁴	33	330	280	...	...	...	...	...	8
Magnesite and brucite, total.....	4	1,655	1,372	121	11	237	469	70	17
Less than 0.30.....	2	1,655	1,372	121	11	237	469	70	17
0.30-0.39.....	1								
0.50-0.59.....	1								
Clay, ceramic, and refractory minerals, n.e.c., total.....	183	13,504	9,783	1,053	98	2,174	3,412	411	1,717
Less than 0.30.....	30	3,782	3,224	192	6	373	587	26	488
0.30-0.39.....	23	3,494	2,583	235	27	576	835	123	144
0.40-0.49.....	23	3,296	2,200	274	34	541	820	150	172
0.50-0.59.....	15	636	380	67	6	124	197	16	47
0.60-0.69.....	10	591	458	72	13	164	237	61	6
0.70-0.79.....	5	498	417	89	...	150	319	...	19
0.80-0.89.....	5	260	173	40	2	81	154	7	20
0.90-0.99.....	3								
1.00 and over.....	29								
Unclassified ⁴	40	532	190	...	...	...	...	...	800
Natural abrasives, total.....	32	4,474	3,681	251	34	524	932	229	377
Less than 0.30.....	8	2,316	2,086	86	14	179	289	100	377
0.30-0.39.....	1								
0.40-0.49.....	8	1,936	1,453	141	19	296	552	128	377
0.50-0.59.....	2								
0.60-0.69.....	...	...	...	...	...	...	...	...	...
0.70-0.79.....	1	...	...	...	...	...	...	...	...
0.80-0.99.....	...	121	82	24	1	49	91	1	...
1.00 and over.....	3	...	...	...	...	...	...	...	...
Unclassified ⁴	9	101	60	...	...	...	...	...	...
Barite, total.....	44	18,269	14,051	1,036	89	2,403	3,451	423	955
Less than 0.30.....	9	9,440	7,704	230	34	567	876	181	494
0.30-0.39.....	8	4,958	3,942	420	26	907	1,407	102	217
0.40-0.49.....	10	1,330	729	117	2	268	317	9	(D)
0.50-0.59.....	7	1,449	986	152	16	378	480	77	77
0.60-0.69.....	5	976	650	110	11	267	355	54	101
0.70-0.79.....	1	116	40	7	...	16	16	...	(D)
Unclassified ⁴	4								

See footnotes at end of table.

MINERAL INDUSTRIES--SUMMARY STATISTICS

Table 4.—GENERAL STATISTICS FOR ESTABLISHMENTS IN SELECTED MINERAL INDUSTRIES IN THE UNITED STATES CLASSIFIED BY RATIO OF WAGES AND SALARIES TO VALUE ADDED IN MINING: 1954—Continued

(For explanation of column captions, see INTRODUCTION)

Industry group, industry, and ratio of wages and salaries to value added in mining	Number of establish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and de- velopment workers (1,000)	Wages and salaries		New capital expendi- tures (\$1,000)
				Production and de- velopment workers	All other employees		Production and de- velopment workers (\$1,000)	All other employees (\$1,000)	
NONMETALLIC MINERALS (EXCEPT FUELS) MINING—Continued									
Fluorspar, total.....	104	15,461	9,914	997	3263	2,001	3,451	3,415	714
Less than 0.30.....	6	1,012	873	38	4	72	127	14	16
0.30-0.39.....	10	5,587	3,244	250	53	507	901	298	233
0.40-0.49.....	9	5,662	4,316	409	101	842	1,425	505	295
0.50-0.59.....	3	1,908	884	139	21	295	510	108	122
0.60-0.69.....	2								
0.70-0.79.....	5								
0.80-0.89.....	3	287	184	36	12	61	103	53	6
0.90-0.99.....	2								
1.00 and over.....	7	846	288	125	32	224	385	183	21
Unclassified ⁴	57	159	125	...	...	...	...	...	21
Potash, soda, and borate minerals, total.....	20	107,757	82,213	4,738	1,584	9,381	23,028	10,411	8,990
Less than 0.30.....	6	23,487	19,149	864	174	1,779	3,896	1,173	1,878
0.30-0.39.....	3	84,270	63,064	3,874	1,410	7,602	19,132	9,238	7,112
0.40-0.49.....	5								
0.50-0.59.....	3								
0.60-0.69.....	3	2	2	2	2	2	2	2	2
0.70-0.79.....	1								
1.00 and over.....	6	2	2	2	2	2	2	2	2
Unclassified ⁴	10								
Phosphate rock, total.....	75	117,976	62,089	4,579	861	10,119	17,089	4,440	11,229
Less than 0.30.....	19	45,253	27,963	829	92	1,910	3,209	498	1,463
0.30-0.39.....	13	17,341	11,392	870	97	1,956	3,213	605	711
0.40-0.49.....	11	20,283	8,709	768	167	1,691	3,013	858	2,546
0.50-0.59.....	4	370	325	38	...	86	162	5	170
0.60-0.69.....	8	16,792	6,854	1,006	194	2,117	3,416	914	1,373
0.70-0.79.....	4	2,106	1,258	186	48	411	723	244	230
0.80-0.89.....	2	15,574	5,429	882	263	1,948	3,353	1,316	(D)
0.90-0.99.....	2								
1.00 and over.....	2	257	159	...	...	...	...	...	(D)
Unclassified ⁴	10								
Rock salt, total.....	15	35,658	30,013	1,659	266	3,861	7,117	1,454	2,185
Less than 0.30.....	6	27,606	23,846	1,069	89	2,412	4,716	498	1,932
0.30-0.39.....	2								
0.40-0.49.....	2								
0.50-0.59.....	3	8,052	6,167	590	177	1,449	2,401	956	253
1.00 and over.....	1								
Unclassified ⁴	1	2	2	2	2	2	2	2	2
Unclassified ⁴	1								
Sulfur, total.....	20	140,685	124,166	3,077	1,018	6,229	14,619	6,567	8,814
Less than 0.30.....	9	140,685	124,166	3,077	1,018	6,229	14,619	6,567	8,814
0.30-0.39.....	2								
0.40-0.49.....	2								
0.50-0.59.....	1	2	2	2	2	2	2	2	2
1.00 and over.....	6								
Chemical and fertilizer mineral mining, n.e.c., total.....	39	21,780	18,074	1,209	233	2,424	4,569	1,357	4,425
Less than 0.30.....	8	6,186	5,541	125	27	239	575	220	338
0.30-0.39.....	4	13,910	11,242	788	162	1,676	3,109	923	3,802
0.40-0.49.....	3								
0.50-0.59.....	2								
0.60-0.69.....	1	993	882	186	13	295	535	67	243
0.70-0.79.....	1								
0.80-0.89.....	5	415	274	51	12	98	178	45	21
0.90-0.99.....	1	236	109	59	19	116	172	102	18
1.00 and over.....	6								
Unclassified ⁴	8	40	26	...	...	...	...	...	3
Gypsum, total.....	37	6,631	5,352	399	50	926	1,567	285	463
Less than 0.30.....	15	3,258	2,803	123	23	273	478	137	341
0.30-0.39.....	2	2,544	1,977	177	16	438	719	99	95
0.40-0.49.....	3								
0.50-0.59.....	4								
0.60-0.69.....	3	285	188	31	2	79	94	9	(D)
0.70-0.79.....	2	45	36	6	1	12	20	2	(D)
0.80-0.89.....	2	402	286	49	7	99	207	34	...
1.00 and over.....	3								
Unclassified ⁴	3	97	62	13	1	25	49	4	...
Mica, total.....	498	4,126	3,284	668	42	1,196	1,255	87	764
Less than 0.30.....	21	574	579	73	2	117	100	6	400
0.30-0.39.....	14	287	270	56	2	94	84	2	28
0.40-0.49.....	18	906	704	167	12	297	304	14	71
0.50-0.59.....	27	717	584	138	3	281	302	10	83
0.60-0.69.....	11	200	157	45	7	82	96	5	8
0.70-0.79.....	8	149	118	43	8	75	76	12	18
0.80-0.89.....	4	98	90	32	2	54	63	16	13
0.90-0.99.....	1								
1.00 and over.....	37	479	141	114	6	196	230	22	71
Unclassified ⁴	357	716	641	...	...	...	...	...	72

See footnotes at end of table.

Table 4.—GENERAL STATISTICS FOR ESTABLISHMENTS IN SELECTED MINERAL INDUSTRIES IN THE UNITED STATES CLASSIFIED BY RATIO OF WAGES AND SALARIES TO VALUE ADDED IN MINING: 1954—Continued
(For explanation of column captions, see INTRODUCTION)

Industry group, industry, and ratio of wages and salaries to value added in mining	Number of establish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and de- velopment workers (1,000)	Wages and salaries		New capital expendi- tures (\$1,000)
				Production and de- velopment workers	All other employees		Production and de- velopment workers (\$1,000)	All other employees (\$1,000)	
NONMETALLIC MINERALS (EXCEPT FUELS) MINING—Continued									
Native asphalt and bitumens, total.....	12	6,424	4,857	451	100	987	1,443	704	540
Less than 0.30.....	2								
0.30-0.39.....	1	4,517	3,453	253	64	562	846	532	424
0.40-0.49.....	1								
0.50-0.59.....	5	979	663	79	16	170	274	83	24
0.60-0.69.....	2								
0.70-0.79.....	...	928	741	119	20	255	323	89	92
1.00 and over.....	...								
Unclassified ⁴	1								
Pumice and pumicite, total.....	75	3,393	2,741	223	44	440	748	214	229
Less than 0.30.....	14	1,202	1,055	42	7	87	158	23	79
0.30-0.39.....	6	268	270	22	4	44	86	9	75
0.40-0.49.....	8	892	707	68	20	114	202	122	37
0.50-0.59.....	7	161	138	19	3	37	66	5	(D)
0.60-0.69.....	6	313	224	47	...	103	136	6	(D)
0.70-0.79.....	1								
0.80-0.89.....	...	271	148	25	10	55	100	49	25
0.90-0.99.....	1								
1.00 and over.....	3								
Unclassified ⁴	29	286	199	...	...	...	...	...	8
Talc, soapstone, and pyrophyllite, total.....	68	11,819	9,486	1,297	174	2,778	4,141	799	1,160
Less than 0.30.....	7	724	511	29	3	57	95	12	(D)
0.30-0.39.....	8	3,297	2,680	198	20	435	821	88	617
0.40-0.49.....	5	1,081	787	116	8	249	320	51	44
0.50-0.59.....	12	1,104	872	124	23	296	357	108	33
0.60-0.69.....	11	4,968	4,180	763	108	1,602	2,332	507	383
0.70-0.79.....	4								
0.80-0.89.....	1	362	259	54	11	113	170	29	(D)
0.90-0.99.....	1								
1.00 and over.....	5	74	80	13	1	26	46	4	36
Unclassified ⁴	14	209	117	...	...	...	...	...	14
Pest, total.....	88	2,326	1,800	321	32	637	829	111	181
Less than 0.30.....	9	288	227	25	...	41	54	...	31
0.30-0.39.....	5	144	148	18	4	27	33	14	24
0.40-0.49.....	16	438	332	54	2	105	139	4	25
0.50-0.59.....	8	614	427	60	5	148	209	20	11
0.60-0.69.....	8	330	257	60	2	131	156	7	8
0.70-0.79.....	1								
0.80-0.89.....	4	302	239	52	13	105	140	52	16
0.90-0.99.....	1								
1.00 and over.....	11	139	85	52	6	80	98	14	26
Unclassified ⁴	25	71	85	...	...	...	...	...	40
Vermiculite and Nonmetallic minerals, n.e.c., total.....	70	24,860	17,437	1,374	394	2,703	5,258	2,062	1,930
Less than 0.30.....	14	1,296	1,037	64	7	144	218	36	81
0.30-0.39.....	9	14,451	10,283	699	204	1,344	2,614	1,199	1,066
0.40-0.49.....	8	4,339	3,154	233	68	501	1,031	391	480
0.50-0.59.....	12	2,926	2,025	240	80	436	852	273	222
0.60-0.69.....	2								
0.70-0.79.....	2	1,306	640	79	22	167	352	107	5
0.80-0.89.....	3								
0.90-0.99.....	2	437	263	59	13	111	191	56	65
1.00 and over.....	7								
Unclassified ⁴	11	105	35	...	...	...	...	...	11

D Withheld to avoid approximately disclosing figures for individual companies.

¹Excludes figures for the Uranium-radium-vanadium ores industry.

²Includes a partly estimated figure for value added in the Natural gas liquids industries.

³Includes figures for central administrative office employees, which were not classified by the ratio of wages and salaries to value added.

⁴Represents establishments reporting less than \$500 for wages and salaries.

⁵Not shown since the cost of supplies, fuel, purchased electric energy, contract work, and purchased machinery exceeded the value of shipments plus capital expenditures.

MINERAL INDUSTRIES—SUMMARY STATISTICS

Table 5.—EMPLOYMENT AT CENTRAL ADMINISTRATIVE OFFICES IN THE MINERAL INDUSTRIES, BY INDUSTRY GROUP AND INDUSTRY: 1954

(Figures in this table represent central administrative offices at different locations from the establishments managed or served, or at the same location as one of these establishments but not operated as an integral part of it. All figures in this table have been included in the reports for the industries with which they are associated and in the reports for the States where they are located)

Industry group and industry	Number of employees	Salaries (\$1,000)
All mineral industries, total.....	33,671	212,713
Metal mining, total.....	4,641	32,949
Iron ores.....	1,937	12,592
Copper ores.....	1,727	13,054
Lead and zinc ores:		
Ores valued chiefly for lead.....	332	2,646
Ores valued chiefly for zinc.....	389	2,833
Gold and silver ores:		
Silver ores.....	78	439
Ferro-alloy ores, except vanadium:		
Manganese ores.....	18	64
Molybdenum ores and Ferro-alloy ores, except vanadium, n.e.c.....	150	1,271
Metallic ores, n.e.c.:		
Mercury ores.....	10	50
Anthracite mining:		
Anthracite.....	1,557	8,183
Bituminous coal and lignite mining:		
Bituminous coal.....	3,077	20,073
Crude petroleum and natural gas extraction:		
Crude petroleum and natural gas.....	21,719	136,008
Natural gas liquids.....	1,695	8,831
Drilling oil and gas wells contract services.....	(D)	(D)
Nonmetallic minerals (except fuels) mining:		
Crushed and broken stone:		
Limestone.....	117	904
Granite.....	(D)	(D)
Trap rock.....	71	516
Sand and gravel:		
Common sand and gravel.....	60	493
Chemical and fertilizer mineral mining:		
Fluorspar.....	40	254
Potash, soda, and borate minerals.....		
Sulfur.....	398	2,781
Chemical and fertilizer mineral mining, n.e.c.....		
Miscellaneous nonmetallic minerals (except fuels):		
Native asphalt and bitumens.....		
Talc, soapstone, and pyrophyllite.....	94	629
Vermiculite and Nonmetallic minerals, n.e.c.....		

D Withheld to avoid approximately disclosing figures for individual companies.

TYPE OF ORGANIZATION

D-1

MINERAL INDUSTRIES—SUMMARY STATISTICS

GENERAL STATISTICS FOR MINERAL INDUSTRIES ESTABLISHMENTS IN THE UNITED STATES CLASSIFIED BY TYPE

(For explanation of line

Code	Major industry group and industry	All establishments, total	Type of company organization ¹		
			Multiunit		
			Total	Corporate ownership or control	Noncorporate ownership or control
	All mineral industries, total:				
	Number of establishments.....	37,446	9,190	6,283	2,907
	All employees:				
	Number.....	785,708	530,258	497,028	33,230
	Wages and salaries..... \$1,000..	3,385,722	2,280,647	2,138,244	142,403
	Production and development workers:				
	Number.....	647,141	439,411	412,075	27,336
	Wages..... \$1,000..	2,572,297	1,748,596	1,640,816	107,780
	Value added in mining ³.....do..	11,546,418	9,115,557	8,672,801	442,756
	New capital expenditures.....do..	2,613,751	2,088,746	1,993,581	95,165
10	Metal mining:				
	Number of establishments.....	3,496	926	622	304
	All employees:				
	Number.....	100,250	88,968	88,156	812
	Wages and salaries..... \$1,000..	463,025	410,703	407,007	3,696
	Production and development workers:				
	Number.....	81,896	72,642	71,988	654
	Wages..... \$1,000..	353,303	313,380	310,560	2,820
	Value added in mining ³.....do..	1,075,519	998,938	990,528	8,410
	New capital expenditures.....do..	214,537	199,305	197,710	1,595
1011	Iron Ores:				
	Number of establishments.....	225	173	161	12
	Number of employees.....	34,170	32,493	32,309	184
	Value added in mining..... \$1,000..	435,668	421,510	418,721	2,789
1021	Copper ores:				
	Number of establishments.....	210	67	55	12
	Number of employees.....	27,813	27,107	27,067	40
	Value added in mining..... \$1,000..	334,876	328,329	328,128	201
1032	Lead ores:				
	Number of establishments.....	113	9	6	3
	Number of employees.....	578	441	440	1
	Value added in mining..... \$1,000..	3,415	2,713	2,708	5
1033	Zinc ores:				
	Number of establishments.....	28	19	19	...
	Number of employees.....	1,922	1,899	1,899	...
	Value added in mining..... \$1,000..	7,733	7,632	7,632	...
1034	Lead-zinc ores:				
	Number of establishments.....	379	149	117	32
	Number of employees.....	14,066	12,276	12,122	154
	Value added in mining..... \$1,000..	96,261	83,307	82,188	1,119
1042	Lode gold:				
	Number of establishments.....	298	44	24	20
	Number of employees.....	3,020	2,450	2,437	13
	Value added in mining..... \$1,000..	21,884	19,206	19,085	121
1043	Placer gold:				
	Number of establishments.....	136	15	6	9
	Number of employees.....	556	233	233	...
	Value added in mining..... \$1,000..	3,614	1,605	1,591	14
1044	Silver ores:				
	Number of establishments.....	101	21	15	6
	Number of employees.....	1,255	1,080	1,073	7
	Value added in mining..... \$1,000..	9,856	9,140	9,040	100
1051	Bauxite:				
	Number of establishments.....	25	21	21	...
	Number of employees.....	852	824	824	...
	Value added in mining..... \$1,000..	12,827	12,090	12,090	...
1062	Manganese ores:				
	Number of establishments.....	367	112	25	87
	Number of employees.....	2,604	1,628	1,491	137
	Value added in mining..... \$1,000..	18,118	11,947	9,642	2,305
1064	Tungsten ores:				
	Number of establishments.....	549	109	43	66
	Number of employees.....	2,987	1,972	1,846	126
	Value added in mining..... \$1,000..	40,744	27,335	26,344	991
1069 (part)	Chromium ores:				
	Number of establishments.....	158	39	2	37
	Number of employees.....	525	372	(D)	(D)
	Value added in mining..... \$1,000..	5,617	3,914	(D)	(D)

See footnotes at end of table.

TYPE OF ORGANIZATION

D-3

OF COMPANY ORGANIZATION AND OWNERSHIP, BY MAJOR INDUSTRY GROUPS AND INDUSTRIES: 1954

captions, see INTRODUCTION)

Type of company organization ¹ —Continued			Type of ownership or control ¹						Code
Single unit			Corporate	Noncorporate					
Total	Corporate ownership or control	Noncorporate ownership		Total	Individual	Partnership	Cooperative	Other ²	
28,256	6,219	22,037	12,502	24,944	12,541	12,018	117	268	
255,450	131,707	123,743	628,735	156,973	70,899	77,599	1,527	6,948	
1,105,075	566,514	538,561	2,704,758	680,964	306,755	338,884	6,713	28,612	
207,730	107,879	99,851	519,954	127,187	57,444	62,353	1,305	6,085	
823,701	426,387	397,314	2,067,203	505,094	227,688	248,625	5,170	23,611	
2,430,861	1,300,266	1,130,595	9,973,067	1,573,351	621,980	831,633	54,674	65,064	
525,005	266,961	258,044	2,260,542	353,209	142,711	187,034	11,813	11,651	
2,570	740	1,830	1,362	2,134	984	1,137	3	10	
11,282	8,470	2,812	96,626	3,624	1,416	2,150	37	21	
52,322	39,294	13,028	446,301	16,724	6,522	9,935	167	100	
9,254	6,950	2,304	78,938	2,958	1,154	1,757	30	17	
39,923	29,982	9,941	340,542	12,761	4,977	7,580	128	76	
76,581	57,507	19,074	1,048,035	27,484	8,560	18,799	99	26	
15,232	11,439	3,793	209,149	5,388	1,676	3,685	22	5	
52	22	30	183	42	11	31	...	...
1,677	1,485	192	33,794	376	61	315	...	...
14,158	10,976	3,182	429,697	5,971	473	5,498	1011
143	46	97	101	109	49	60	
706	579	127	27,646	167	88	79	...	...
6,547	5,527	1,020	333,655	1,221	609	612	...	...
104	28	76	34	79	33	44	...	2	
137	67	70	507	71	(D)	46	...	(D)	
702	315	387	3,023	392	(D)	255	...	(D)	
9	3	6	22	6	3	3	...	...
23	12	11	1,911	11	1	10	...	...
101	62	39	7,694	39	7	32	1033
230	82	148	199	180	88	91	1	...	
1,790	1,433	357	13,555	511	(D)	236	(D)	...	
12,954	10,049	2,905	92,237	4,024	(D)	1,871	(D)	...	
254	96	158	120	178	87	90	...	1	
570	457	113	2,894	126	(D)	62	...	(D)	
2,678	2,109	569	21,194	690	(D)	462	...	(D)	
121	17	104	23	113	56	56	...	1	
323	250	73	483	73	(D)	45	...	(D)	
2,009	1,521	488	3,112	502	(D)	277	...	(D)	1043
80	35	45	50	51	27	24	
175	120	55	1,193	62	33	29	...	...
716	470	246	9,510	346	187	159	...	...
4	2	2	23	2	2	...	...	...
28	(D)	(D)	(D)	(D)	(D)	
737	(D)	(D)	(D)	(D)	(D)	...	...	...
255	39	216	64	303	135	167	1	...	
976	660	316	2,151	453	(D)	246	(D)	...	
6,171	3,448	2,723	13,090	5,028	(D)	3,178	(D)	...	1062
440	62	378	105	444	211	233	
1,015	735	280	2,581	406	79	327	...	...
13,409	10,121	3,288	36,465	4,279	915	3,364	...	...
119	10	109	12	146	68	78	...	...
153	(D)	(D)	382	143	52	91	
1,703	(D)	(D)	3,887	1,730	475	1,255	...	...

MINERAL INDUSTRIES—SUMMARY STATISTICS

GENERAL STATISTICS FOR MINERAL INDUSTRIES ESTABLISHMENTS IN THE UNITED STATES CLASSIFIED BY TYPE

(For explanation of line

Code	Major industry group and industry	All establishments, total	Type of company organization ¹		
			Multiunit		
			Total	Corporate ownership or control	Noncorporate ownership or control
1063 and 1069 (part)	Molybdenum ores and Ferro-alloy ores, except chromium and vanadium, n.e.c.:				
	Number of establishments.....	12	5	5	...
	Number of employees.....	1,962	(D)	(D)	...
	Value added in mining.....\$1,000..	42,920	(D)	(D)	...
1081	Metal mining contract services:				
	Number of establishments.....	114	14	12	2
	Number of employees.....	3,059	1,466	(D)	(D)
	Value added in mining.....\$1,000..	26,703	14,590	(D)	(D)
1092	Mercury ores:				
	Number of establishments.....	87	14	11	3
	Number of employees.....	453	178	170	8
	Value added in mining.....\$1,000..	3,355	1,542	1,498	44
1093	Titanium ores:				
	Number of establishments.....	10	8	8	...
	Number of employees.....	843	(D)	(D)	...
	Value added in mining.....\$1,000..	11,134	(D)	(D)	...
1094	Uranium-radium-vanadium ores ⁴ :				
	Number of establishments.....	637	97	84	13
	Number of employees.....	3,467	1,730	1,667	63
1099	Metallic ores, n.e.c.:				
	Number of establishments.....	47	10	8	2
	Number of employees.....	118	69	(D)	(D)
	Value added in mining.....\$1,000..	794	431	(D)	(D)
11	Anthracite mining:				
	Number of establishments.....	1,436	198	159	39
	All employees:				
	Number.....	37,462	26,830	25,172	1,658
	Wages and salaries.....\$1,000..	135,929	97,325	91,291	6,034
	Production and development workers:				
	Number.....	33,026	23,647	22,181	1,466
	Wages.....\$1,000..	113,932	81,575	76,517	5,058
	Value added in mining.....do..	196,835	124,110	114,512	9,598
	New capital expenditures.....do..	8,446	5,329	4,919	410
1111	Anthracite:				
	Number of establishments.....	1,291	183	152	31
	Number of employees.....	32,769	25,716	24,207	1,509
	Value added in mining.....\$1,000..	167,090	117,464	108,831	8,633
1112	Anthracite stripping contract services:				
	Number of establishments.....	132	14	6	8
	Number of employees.....	4,556	(D)	(D)	149
	Value added in mining.....\$1,000..	29,079	(D)	(D)	965
1113	Anthracite contract services, except stripping:				
	Number of establishments.....	13	1	1	...
	Number of employees.....	137	(D)	(D)	...
	Value added in mining.....\$1,000..	666	(D)	(D)	...
12	Bituminous coal and lignite mining:				
	Number of establishments.....	6,855	1,470	1,044	426
	All employees:				
	Number.....	218,833	160,124	149,726	10,398
	Wages and salaries.....\$1,000..	874,305	639,991	598,391	41,600
	Production and development workers:				
	Number.....	199,655	146,147	136,647	9,500
	Wages.....\$1,000..	764,863	559,880	523,488	36,392
	Value added in mining.....do..	1,418,384	1,081,678	1,018,579	63,099
	New capital expenditures.....do..	103,975	79,333	74,732	4,601
1211	Bituminous coal:				
	Number of establishments.....	6,643	1,436	1,027	409
	Number of employees.....	216,813	159,458	149,170	10,288
	Value added in mining.....\$1,000..	1,396,774	1,071,729	1,010,061	61,668
1212	Lignite:				
	Number of establishments.....	60	9	9	...
	Number of employees.....	574	374	374	...
	Value added in mining.....\$1,000..	9,093	7,218	7,218	...
1213	Bituminous coal and lignite mining contract services:				
	Number of establishments.....	152	25	8	17
	Number of employees.....	1,446	292	182	110
	Value added in mining.....\$1,000..	12,517	2,731	1,300	1,431

See footnotes at end of table.

TYPE OF ORGANIZATION

D-5

OF COMPANY ORGANIZATION AND OWNERSHIP, BY MAJOR INDUSTRY GROUPS AND INDUSTRIES: 1954--Continued
captions, see INTRODUCTION)

Type of company organization ¹ —Continued			Type of ownership or control ¹						Code
Single unit			Corporate	Noncorporate					
Total	Corporate ownership or control	Noncorporate ownership		Total	Individual	Partnership	Cooperative	Other ²	
7 (D) (D)	5 (D) (D)	2 ... (D)	10 1,962 (D)	2 ... (D)	1 ... (D)	1 ... (D)	... ... ...	... ... ...	1063 and 1069 (part)
100 1,593 12,113	38 (D) (D)	62 (D) (D)	50 2,695 23,896	64 364 2,807	42 166 1,248	22 198 1,559	... ... ...	... ... ...	1081
73 275 1,813	10 257 1,601	63 18 212	21 427 3,099	66 26 256	27 13 (D)	38 13 207	... ... ...	1 ... (D)	1092
2 (D) (D)	1 (D) (D)	1	9 843 11,134	1	1 ... ...	... ... ...	... ... ...	... ... ...	1093
540 1,737	233 985	307 752	317 2,652	320 815	125 350	189 448	1 (D)	5 (D)	1094
37 49 363	11 (D) (D)	26 (D) (D)	19 (D) 645	28 (D) 149	18 (D) (D)	10 (D) (D)	... ... ...	... ... ...	1099
1,238	172	1,066	331	1,105	246	859	...	...	11
10,632 38,604	6,961 25,286	3,671 13,318	32,133 116,577	5,329 19,352	2,767 10,044	2,562 9,308	... ...	... ...
9,379 32,357 72,725 3,117	6,143 21,194 43,794 1,876	3,236 11,163 28,931 1,241	28,324 97,711 158,306 6,795	4,702 16,221 38,529 1,651	2,440 8,419 13,876 594	2,262 7,802 24,653 1,057	... ... ... ...	... ... ... ...
1,108 7,053 49,626	113 4,133 26,008	995 2,920 23,618	265 28,340 134,839	1,026 4,429 32,251	209 2,376 11,859	817 2,053 20,392	... ... ...	... ... ...	1111
118 (D) (D)	56 (D) (D)	62 (D) (D)	62 (D) (D)	70 (D) (D)	29 (D) (D)	41 (D) (D)	... ... ...	... ... ...	1112
12 (D) (D)	3 (D) (D)	9 (D) (D)	4 (D) (D)	9 (D) (D)	8 (D) (D)	1 (D) (D)	... ... ...	... ... ...	1113
5,385	886	4,499	1,930	4,925	2,715	2,148	32	30	12
58,709 234,314	30,812 123,015	27,897 111,299	180,538 721,406	38,295 152,899	16,394 65,441	15,991 63,912	736 2,905	5,174 20,641	
53,508 204,983 336,706 24,642	28,092 107,616 200,666 14,687	25,416 97,367 136,040 9,955	164,739 631,104 1,219,245 89,419	34,916 133,759 199,139 14,556	14,944 57,249 73,760 5,386	14,595 55,911 91,404 6,681	663 2,542 2,079 160	4,714 18,057 31,896 2,329	
5,207 57,355 325,045	836 30,016 194,414	4,371 27,339 130,631	1,863 179,186 1,204,475	4,780 37,627 192,299	2,636 16,149 71,234	2,082 15,568 87,090	32 736 2,079	30 5,174 31,896	1211
51 200 1,875	7 123 1,331	44 77 544	16 497 8,549	44 77 544	32 55 329	12 22 215	... ... ...	... ... ...	1212
127 1,154 9,786	43 673 4,921	84 481 4,865	51 855 6,221	101 591 6,296	47 190 2,197	54 401 4,099	... ... ...	... ... ...	1213

MINERAL INDUSTRIES--SUMMARY STATISTICS

GENERAL STATISTICS FOR MINERAL INDUSTRIES ESTABLISHMENTS IN THE UNITED STATES CLASSIFIED BY TYPE

(For explanation of line

Code	Major industry group and industry	All establishments, total	Type of company organization ¹		
			Multiunit		
			Total	Corporate ownership or control	Noncorporate ownership or control
13	Crude petroleum and natural gas extraction:				
	Number of establishments.....	17,585	4,231	2,690	1,541
	All employees:				
	Number.....	315,735	187,064	171,572	15,492
	Wages and salaries.....\$1,000..	1,462,443	865,766	793,907	71,859
	Production and development workers:				
	Number.....	235,483	139,406	127,835	11,571
	Wages.....\$1,000..	976,595	578,144	530,158	47,986
	Value added in mining ⁵.....do..	7,673,694	6,090,276	5,770,160	320,116
	New capital expenditures.....do..	2,156,530	1,714,376	1,630,428	83,948
1312	Crude petroleum:				
	Number of establishments.....	10,101	2,899	1,677	1,222
	Number of employees.....	161,282	129,612	120,511	9,101
	Value added in mining.....\$1,000..	5,741,256	5,035,082	4,808,503	226,579
1313	Natural gas:				
	Number of establishments.....	1,407	402	292	110
	Number of employees.....	11,224	8,816	8,212	604
	Value added in mining.....\$1,000..	387,957	346,834	318,047	28,787
1314 and 1315	Natural gas liquids ⁴ :				
	Number of establishments.....	562	513	479	34
	Number of employees.....	17,340	16,236	15,727	509
1331	Drilling oil and gas wells contract services:				
	Number of establishments.....	2,869	318	171	147
	Number of employees.....	67,976	20,984	16,326	4,658
	Value added in mining.....\$1,000..	623,967	191,940	154,320	37,620
1332	Building, repairing, and dismantling rigs and derricks contract services:				
	Number of establishments.....	120	4	2	2
	Number of employees.....	1,632	222	(D)	(D)
	Value added in mining.....\$1,000..	9,552	1,549	(D)	(D)
1339	Oil and gas field contract services, n.e.c.:				
	Number of establishments.....	2,526	95	69	26
	Number of employees.....	56,281	11,194	(D)	(D)
	Value added in mining.....\$1,000..	485,025	111,083	(D)	(D)
14	Nonmetallic minerals (except fuels) mining:				
	Number of establishments.....	8,074	2,365	1,768	597
	All employees:				
	Number.....	113,428	67,272	62,402	4,870
	Wages and salaries.....\$1,000..	450,020	266,862	247,648	19,214
	Production and development workers:				
	Number.....	97,081	57,569	53,424	4,145
	Wages.....\$1,000..	363,604	215,617	200,093	15,524
	Value added in mining.....do..	1,181,986	820,555	779,022	41,533
	New capital expenditures.....do..	130,263	90,403	85,792	4,611
1412	Dimension limestone:				
	Number of establishments.....	65	9	7	2
	Number of employees.....	500	121	(D)	(D)
	Value added in mining.....\$1,000..	2,942	683	(D)	(D)
1413	Dimension granite:				
	Number of establishments.....	86	27	23	4
	Number of employees.....	967	500	460	40
	Value added in mining.....\$1,000..	4,590	2,189	2,027	162
1415	Dimension marble:				
	Number of establishments.....	30	19	19	...
	Number of employees.....	637	585	585	...
	Value added in mining.....\$1,000..	2,893	2,695	2,695	...
1417	Dimension sandstone:				
	Number of establishments.....	115	19	15	4
	Number of employees.....	973	137	102	35
	Value added in mining.....\$1,000..	4,178	896	691	205
1416 and 1419	Dimension trap rock and Dimension stone, n.e.c.:				
	Number of establishments.....	55	...	...	...
	Number of employees.....	147	...	...	...
	Value added in mining.....\$1,000..	552	...	...	...
1422	Crushed and broken limestone:				
	Number of establishments.....	1,447	527	399	128
	Number of employees.....	28,240	16,168	14,952	1,216
	Value added in mining.....\$1,000..	239,604	148,298	139,091	9,207

See footnotes at end of table.

TYPE OF ORGANIZATION

D-7

OF COMPANY ORGANIZATION AND OWNERSHIP, BY MAJOR INDUSTRY GROUPS AND INDUSTRIES: 1954—Continued
 captions, see INTRODUCTION)

Type of company organization ¹ —Continued			Type of ownership or control ¹						Code
Single unit			Noncorporate						
Total	Corporate ownership or control	Noncorporate ownership	Corporate	Total	Individual	Partnership	Cooperative	Other ²	
13,354	2,747	10,607	5,437	12,148	5,791	6,086	69	202	13
128,671	59,305	69,366	230,877	84,858	37,796	45,086	612	1,364	
596,677	275,068	321,609	1,068,975	393,468	175,093	208,932	3,148	6,295	
96,077	44,291	51,786	172,126	63,357	28,194	33,643	506	1,014	
398,451	183,686	214,765	713,844	262,751	116,924	139,521	2,102	4,204	
1,583,418	776,198	807,220	6,546,358	1,127,336	448,508	596,582	51,565	30,681	
442,154	214,445	227,709	1,844,873	311,657	126,533	164,555	11,531	9,038	
7,202	1,309	5,893	2,986	7,115	3,220	3,677	51	167	1312
31,670	11,314	20,356	131,825	29,457	14,178	13,710	409	1,160	
706,174	281,763	424,411	5,090,266	650,990	278,624	319,636	26,691	26,039	
1,005	262	743	554	853	264	553	9	27	1313
2,408	1,103	1,305	9,315	1,909	828	973	42	66	
41,123	21,960	19,163	340,007	47,950	12,707	17,454	14,433	3,356	
49	37	12	516	46	8	32	3	3	1314 and
1,104	884	220	16,611	729	96	469	119	45	1315
2,551	663	1,888	834	2,035	969	1,063	1	2	1331
46,992	21,240	25,752	37,566	30,410	11,100	19,247	(D)	(D)	
432,027	202,188	229,839	356,508	267,459	90,401	176,349	(D)	(D)	
116	7	109	9	111	95	16	...	...	1332
1,410	(D)	(D)	443	1,189	892	297	...	...
8,003	(D)	(D)	3,882	5,670	4,147	1,523	...	...
2,431	469	1,962	538	1,988	1,235	745	5	3	1339
45,087	(D)	(D)	35,117	21,164	10,702	10,390	(D)	(D)	
373,942	(D)	(D)	356,931	128,094	61,352	66,267	(D)	(D)	
5,709	1,674	4,035	3,442	4,632	2,805	1,788	13	26	14
46,156	26,159	19,997	88,561	24,867	12,526	11,810	142	389	
183,158	103,851	79,307	351,499	98,521	49,655	46,797	493	1,576	
39,512	22,403	17,109	75,827	21,254	10,712	10,096	106	340	
147,987	83,909	64,078	284,002	79,602	40,119	37,811	398	1,274	
361,431	222,101	139,330	1,001,123	180,863	77,276	100,195	931	2,461	
39,860	24,514	15,346	110,306	19,957	8,522	11,056	100	279	
56	9	47	16	49	32	17	...	...	1412
379	(D)	(D)	250	250	131	119	...	...
2,259	(D)	(D)	1,670	1,272	590	682	...	...
59	22	37	45	41	28	11	...	2	1413
467	243	224	703	264	141	(D)	...	(D)	
2,401	1,202	1,199	3,229	1,361	588	(D)	...	(D)	
11	5	6	24	6	4	2	...	...	1415
52	41	11	626	11	(D)	(D)	...	...
198	143	55	2,838	55	(D)	(D)	...	...
96	21	75	36	79	63	16	...	...	1417
836	498	338	600	373	281	92	...	...
3,282	1,996	1,286	2,687	1,491	1,107	384	...	...
55	6	49	6	49	32	17	...	...	1416 and
147	23	124	23	124	74	50	...	...	1419
552	102	450	102	450	270	180	...	...
920	360	560	759	688	351	328	4	5	1422
12,072	7,467	4,605	22,419	5,821	2,579	3,127	(D)	(D)	
91,306	60,879	30,427	199,970	39,634	17,165	21,926	(D)	(D)	

MINERAL INDUSTRIES—SUMMARY STATISTICS

GENERAL STATISTICS FOR MINERAL INDUSTRIES ESTABLISHMENTS IN THE UNITED STATES CLASSIFIED BY TYPE

(For explanation of line

Code	Major industry group and industry	All establishments, total	Type of company organization ¹		
			Multiunit		
			Total	Corporate ownership or control	Noncorporate ownership or control
1423	Crushed and broken granite:				
	Number of establishments.....	101	47	39	8
	Number of employees.....	2,550	1,639	1,339	300
	Value added in mining.....\$1,000..	22,201	15,445	13,195	2,250
1424	Crushed and broken slate:				
	Number of establishments.....	11	10	10	...
	Number of employees.....	533	(D)	(D)	...
	Value added in mining.....\$1,000..	5,055	(D)	(D)	...
1425	Crushed and broken marble:				
	Number of establishments.....	18	10	10	...
	Number of employees.....	431	319	319	...
	Value added in mining.....\$1,000..	3,661	2,927	2,927	...
1426	Crushed and broken trap rock:				
	Number of establishments.....	142	72	55	17
	Number of employees.....	3,057	1,880	1,601	279
	Value added in mining.....\$1,000..	34,127	23,325	20,995	2,330
1427	Crushed and broken sandstone:				
	Number of establishments.....	87	47	39	8
	Number of employees.....	1,711	1,160	1,074	86
	Value added in mining.....\$1,000..	22,913	18,191	16,677	1,514
1429	Crushed and broken stone, n.e.c.:				
	Number of establishments.....	95	34	26	8
	Number of employees.....	882	525	486	39
	Value added in mining.....\$1,000..	10,050	7,717	7,364	353
1441 (part)	Common sand and gravel:				
	Number of establishments.....	3,756	803	598	205
	Number of employees.....	34,090	12,954	11,011	1,943
	Value added in money.....\$1,000..	334,046	160,342	141,100	19,242
1441 (part)	Glass sand:				
	Number of establishments.....	44	17	15	2
	Number of employees.....	1,295	832	(D)	(D)
	Value added in mining.....\$1,000..	13,701	10,682	(D)	(D)
1441 (part)	Foundry Sand:				
	Number of establishments.....	131	60	43	17
	Number of employees.....	1,081	604	501	103
	Value added in mining.....\$1,000..	8,982	4,804	3,873	931
1452	Bentonite:				
	Number of establishments.....	43	24	21	3
	Number of employees.....	634	455	444	11
	Value added in mining.....\$1,000..	16,350	13,966	13,952	14
1453	Fire clay:				
	Number of establishments.....	248	114	98	16
	Number of employees.....	1,987	1,344	1,295	49
	Value added in mining.....\$1,000..	17,468	12,282	11,783	499
1454	Fuller's earth:				
	Number of establishments.....	16	6	6	...
	Number of employees.....	564	449	449	...
	Value added in mining.....\$1,000..	4,179	3,406	3,406	...
1455	Kaolin and ball clay:				
	Number of establishments.....	54	39	34	5
	Number of employees.....	3,148	2,383	2,338	45
	Value added in mining.....\$1,000..	25,249	19,965	19,367	598
1456	Feldspar:				
	Number of establishments.....	84	40	28	12
	Number of employees.....	616	488	469	19
	Value added in mining.....\$1,000..	4,048	3,129	3,035	94
1457	Magnesite and brucite:				
	Number of establishments.....	4	3	3	...
	Number of employees.....	132	(D)	(D)	...
	Value added in mining.....\$1,000..	1,372	(D)	(D)	...
1459	Clay, ceramic, and refractory minerals, n.e.c.:				
	Number of establishments.....	183	62	53	9
	Number of employees.....	1,151	461	411	50
	Value added in mining.....\$1,000..	9,783	4,449	4,167	282
146	Natural abrasives, except sand:				
	Number of establishments.....	32	6	6	...
	Number of employees.....	285	34	34	...
	Value added in mining.....\$1,000..	3,681	386	386	...

See footnotes at end of table.

TYPE OF ORGANIZATION

D-9

OF COMPANY ORGANIZATION AND OWNERSHIP, BY MAJOR INDUSTRY GROUPS AND INDUSTRIES: 1954—Continued
 captions, see INTRODUCTION)

Type of company organization ¹ —Continued			Type of ownership or control ¹						
Single unit				Noncorporate					
Total	Corporate ownership or control	Noncorporate ownership	Corporate	Total	Individual	Partnership	Cooperative	Other ²	
54	28	26	67	34	16	18	...	...	1423
911	672	239	2,011	539	100	439	...	...
6,756	4,989	1,767	18,184	4,017	759	3,258	...	...
1	...	1	10	1	...	1	...	...	1424
(D)	...	(D)	(D)	(D)	...	(D)	...	...
(D)	...	(D)	(D)	(D)	...	(D)	...	...
8	5	3	15	3	3	...	...	...	1425
112	75	37	394	37	37	...	...	...
734	534	200	3,461	200	200	...	...	...
70	35	35	90	52	31	20	...	1	1426
1,177	834	343	2,435	622	(D)	378	...	(D)	
10,802	7,669	3,133	28,664	5,463	(D)	3,419	...	(D)	
40	17	23	56	31	17	14	...	...	1427
551	347	204	1,421	290	118	172	...	...
4,722	3,420	1,302	20,097	2,816	688	2,128	...	...
61	16	45	42	53	32	21	...	...	1429
357	174	183	660	222	128	94	...	...
2,333	995	1,338	8,359	1,691	924	767	...	...
2,953	806	2,147	1,404	2,352	1,412	921	5	14	1441 (part)
21,136	10,145	10,991	21,156	12,934	7,085	5,566	68	215	
173,704	96,753	76,951	237,853	96,193	40,401	53,868	577	1,347	
27	14	13	29	15	10	5	...	...	1441 (part)
463	(D)	(D)	1,234	61	11	50	...	...
3,019	(D)	(D)	13,130	571	89	482	...	...
71	19	52	62	69	40	28	...	1	1441 (part)
477	240	237	741	340	193	(D)	...	(D)	
4,178	2,533	1,645	6,406	2,576	1,337	(D)	...	(D)	
19	8	11	29	14	8	6	...	...	1452
179	81	98	525	109	67	42	...	...
2,384	1,299	1,085	15,251	1,099	578	521	...	...
134	38	96	136	112	66	46	...	...	1453
643	320	323	1,615	372	171	201	...	...
5,186	2,944	2,242	14,727	2,741	1,336	1,405	...	...
10	5	5	11	5	...	4	...	1	1454
115	82	33	531	33	...	(D)	...	(D)	
773	613	160	4,019	160	...	(D)	...	(D)	
15	9	6	43	11	8	3	...	...	1455
765	734	31	3,072	76	35	41	...	...
5,284	5,045	239	24,412	837	344	493	...	...
44	7	37	35	49	35	14	...	...	1456
128	100	28	569	47	37	10	...	...
919	569	350	3,604	444	355	89	...	...
1	...	1	3	1	1	...	...	...	1457
(D)	...	(D)	131	(D)	(D)	...	...	...
(D)	...	(D)	1,354	(D)	(D)	...	...	...
121	55	66	108	75	47	28	...	...	1459
690	520	170	931	220	168	52	...	...
5,334	4,133	1,201	8,300	1,483	1,076	407	...	...
26	10	16	16	16	8	8	...	...	146
251	194	57	228	57	28	29	...	...
3,295	2,584	711	2,970	711	527	184	...	...

MINERAL INDUSTRIES—SUMMARY STATISTICS

GENERAL STATISTICS FOR MINERAL INDUSTRIES ESTABLISHMENTS IN THE UNITED STATES CLASSIFIED BY TYPE

(For explanation of line

Code	Major industry group and industry	All establishments, total	Type of company organization ¹		
			Multiunit		
			Total	Corporate ownership or control	Noncorporate ownership or control
1472	Barite:				
	Number of establishments.....	44	17	13	4
	Number of employees.....	1,125	771	715	56
	Value added in mining.....\$1,000..	14,051	11,905	11,419	486
1473	Fluorspar:				
	Number of establishments.....	104	24	18	6
	Number of employees.....	1,260	1,012	989	23
	Value added in mining.....\$1,000..	9,914	7,907	7,711	196
1474	Potash, soda, and borate minerals:				
	Number of establishments.....	20	17	17	...
	Number of employees.....	6,322	6,250	6,250	...
	Value added in mining.....\$1,000..	82,213	81,113	81,113	...
1475	Phosphate rock:				
	Number of establishments.....	75	43	40	3
	Number of employees.....	5,440	5,162	5,056	106
	Value added in mining.....\$1,000..	62,089	59,210	58,687	523
1476	Rock salt:				
	Number of establishments.....	15	9	9	...
	Number of employees.....	1,925	(D)	(D)	...
	Value added in mining.....\$1,000..	30,013	(D)	(D)	...
1477	Sulfur:				
	Number of establishments.....	20	13	13	...
	Number of employees.....	4,095	3,981	3,981	...
	Value added in mining.....\$1,000..	124,166	123,097	123,097	...
1479	Chemical and fertilizer mineral mining, n.e.c.:				
	Number of establishments.....	39	23	23	...
	Number of employees.....	1,442	1,369	1,369	...
	Value added in mining.....\$1,000..	18,074	17,771	17,771	...
1481	Nonmetallic minerals (except fuels) contract services:				
	Number of establishments.....	62	5	1	4
	Number of employees.....	639	80	(D)	(D)
	Value added in mining.....\$1,000..	4,884	756	(D)	(D)
1492	Gypsum:				
	Number of establishments.....	37	14	14	...
	Number of employees.....	449	346	346	...
	Value added in mining.....\$1,000..	5,352	4,314	4,314	...
1493	Mica:				
	Number of establishments.....	498	118	11	107
	Number of employees.....	710	382	99	283
	Value added in mining.....\$1,000..	3,284	1,471	404	1,067
1494	Native asphalt and bitumens:				
	Number of establishments.....	12	7	4	3
	Number of employees.....	551	268	(D)	(D)
	Value added in mining.....\$1,000..	4,857	2,964	(D)	(D)
1495	Pumice and pumicite:				
	Number of establishments.....	75	20	16	4
	Number of employees.....	267	146	130	16
	Value added in mining.....\$1,000..	2,741	1,350	1,149	201
1496	Talc, soapstone, and pyrophyllite:				
	Number of establishments.....	68	36	23	13
	Number of employees.....	1,471	832	799	33
	Value added in mining.....\$1,000..	9,486	5,349	5,011	338
1498	Peat:				
	Number of establishments.....	88	3	...	3
	Number of employees.....	353	(D)	...	(D)
	Value added in mining.....\$1,000..	1,800	(D)	...	(D)
1497 and 1499	Vermiculite and Nonmetallic minerals, n.e.c.:				
	Number of establishments.....	70	21	19	2
	Number of employees.....	1,768	1,469	(D)	(D)
	Value added in mining.....\$1,000..	17,437	15,467	(D)	(D)

D Withheld to avoid approximately disclosing figures for individual companies. ¹Figures are based on individual establishment reports received in the 1954 Census of Mineral Industries. Each establishment was classified according to the principal mineral produced or primary type of contract service performed. Accordingly, the statistics in this table cannot be compared directly with tabulations in which the entire company or corporation represents the reporting unit and is classified in one industry, such as statistics on income of corporations compiled by the Bureau of Internal Revenue, U. S. Treasury Department. Establishments were classified as part of a multiunit company when the company operated two or more establishments in the mineral industries or one establishment in the mineral industries plus one or more establishments classified in manufacturing, wholesale trade, or retail or services trade industries. ²Includes establishments operated by estate administrators, by trustees, and by church groups. ³Excludes value added by establishments in the Uranium-radium-vanadium ores industry. ⁴Value added is not available for this industry. ⁵Includes a partly estimated figure for value added in the Natural gas liquids industries.

TYPE OF ORGANIZATION

D-11

OF COMPANY ORGANIZATION AND OWNERSHIP, BY MAJOR INDUSTRY GROUPS AND INDUSTRIES: 1954—Continued
 captions, see INTRODUCTION)

Type of company organization ¹ —Continued			Type of ownership or control ¹						
Single unit			Corporate	Noncorporate					
Total	Corporate ownership or control	Noncorporate ownership		Total	Individual	Partnership	Cooperative	Other ²	
27	8	19	21	23	10	13	...	...	1472
354	157	197	872	253	105	148	...	...
2,146	960	1,186	12,379	1,672	509	1,163	...	...
80	7	73	25	79	54	24	1	...	1473
248	90	158	1,079	181	(D)	135	(D)	...	
2,007	499	1,508	8,210	1,704	(D)	1,304	(D)	...	
3	2	1	19	1	1	...	...	...	1474
72	(D)	(D)	(D)	(D)	(D)	...	...	...
1,100	(D)	(D)	(D)	(D)	(D)	...	...	...
32	8	24	48	27	12	14	...	1	1475
278	141	137	5,197	243	(D)	159	...	(D)	
2,879	1,048	1,831	59,735	2,354	(D)	1,286	...	(D)	
6	4	2	13	2	1	1	...	...	1476
(D)	(D)	(D)	(D)	(D)	...	(D)	...	...
(D)	(D)	(D)	(D)	(D)	(D)	(D)	...	...
7	7	...	20	...	...	...	...	...	1477
114	114	...	4,095	...	...	...	...	...
1,069	1,069	...	124,166	...	...	...	...	...
16	7	9	30	9	3	6	...	...	1479
73	38	35	1,407	35	4	31	...	...
303	164	139	17,935	139	11	128	...	...
57	8	49	9	53	38	15	...	...	1481
559	(D)	(D)	269	370	290	80	...	...
4,128	(D)	(D)	2,233	2,651	1,931	720	...	...
23	9	14	23	14	9	5	...	...	1492
103	57	46	403	46	26	20	...	...
1,038	518	520	4,832	520	198	322	...	...
380	28	352	39	459	325	131	3	...	1493
328	162	166	261	449	121	310	18	...	
1,813	725	1,088	1,129	2,155	785	1,278	92	...	
5	3	2	7	5	...	5	...	...	1494
283	(D)	(D)	439	112	...	112	...	...
1,893	(D)	(D)	3,734	1,123	...	1,123	...	...
55	16	39	32	43	30	13	...	...	1495
121	58	63	188	79	46	33	...	...
1,391	666	725	1,815	926	516	410	...	...
32	19	13	42	26	14	12	...	...	1496
639	612	27	1,411	60	53	7	...	...
4,137	3,695	442	8,706	780	689	91	...	...
85	28	57	28	60	47	13	...	...	1498
(D)	(D)	(D)	(D)	(D)	(D)	(D)	...	...
(D)	(D)	(D)	(D)	(D)	(D)	(D)	...	...
49	25	24	44	26	17	8	...	1	1497 and
299	(D)	(D)	1,674	94	62	(D)	...	(D)	1499
1,970	(D)	(D)	16,774	663	457	(D)	...	(D)	

POWER EQUIPMENT

E-1

Table 1.—HORSEPOWER OF POWER EQUIPMENT USED IN THE MINERAL INDUSTRIES IN THE UNITED STATES: 1954, 1939, 1929, 1919, 1909, AND 1902; AND BY MAJOR INDUSTRY GROUP: 1954 AND 1939

(For explanation of column captions, see INTRODUCTION)

Major industry group	Aggregate horsepower per production worker	Aggregate horsepower (prime movers and electric motors driven by purchased energy) (1,000 horsepower)	Prime movers (1,000 horsepower)			Electric motors (1,000 horsepower)		
			Total	Driving generators ¹	Not driving generators ¹	Total	Driven by purchased energy	Driven by energy generated and used at same establishment
All mineral industries: ²								
Including crude petroleum and natural gas extraction.....								
.....1954..	63	40,711	30,547	2,326	28,221	11,745	10,164	1,581
.....1939..	18	14,160	8,149	1,344	6,805	7,649	6,011	1,638
.....1919..	7	6,786	5,147	(NA)	(NA)	2,899	1,639	1,260
.....1909..	5	4,700	4,484	(NA)	(NA)	724	216	508
.....1902..	5	2,753	2,727	(NA)	(NA)	139	26	113
Excluding crude petroleum and natural gas extraction.....								
.....1954..	48	20,610	11,743	1,576	10,167	10,048	8,867	1,181
.....1939..	14	9,059	3,512	1,188	2,324	7,067	5,547	1,520
.....1929..	9	7,584	2,780	994	1,786	6,161	4,804	1,357
Metal mining.....								
.....1954..	62	5,113	2,823	861	1,962	2,978	2,290	688
.....1939..	25	2,264	866	370	496	1,697	1,398	299
Anthracite mining.....								
.....1954..	46	1,506	703	116	587	906	803	103
.....1929..	13	1,091	509	165	344	950	582	368
Bituminous coal and lignite mining.....								
.....1954..	32	6,332	2,656	311	2,345	3,800	3,676	124
.....1939..	9	3,373	922	454	468	3,073	2,451	622
Crude petroleum and natural gas extraction.....								
.....1954..	85	20,101	18,804	750	18,054	1,697	1,297	400
.....1939..	34	5,101	4,637	156	4,481	582	464	118
Nonmetallic minerals (except fuels) mining ²								
.....1954..	79	7,659	5,561	288	5,273	2,364	2,098	266
.....1939..	29	2,331	1,215	199	1,016	1,347	1,116	231

NA Not available.

¹For 1939, data for contract service operations were allocated between "driving generators" and "not driving generators" in proportion to such distribution for 1954.²For 1954, excludes, but for 1939 includes, data for dimension and crushed stone, clay, and gypsum mines operated as part of manufacturing establishments. For 1929 and earlier years, excludes data for common clay and shale and contract service operations. For 1919, 1909, and 1902, excludes data for sand and gravel operations. For 1902, includes data for lime plants.

Table 2.—HORSEPOWER OF POWER EQUIPMENT USED IN THE MINERAL

(For explanation of column

Code	Industry group and industry	Aggregate horsepower per production worker	Aggregate horsepower (prime movers and electric motors driven by purchased energy) (1,000 horsepower)				
			Total	Loading equipment	Transportation equipment		All other equipment
					Highway type	Other	
	All mineral industries, total.....	63	40,711	3,759	11,360	3,647	21,945
	MAJOR INDUSTRY GROUPS						
10	Metal mining.....	62	5,113	489	654	1,345	2,625
11	Anthracite mining.....	46	1,506	220	219	285	782
12	Bituminous coal and lignite mining.....	32	6,332	1,141	1,077	1,318	2,796
13	Crude petroleum and natural gas extraction.....	85	20,101	...	7,162	...	12,939
14	Nonmetallic minerals (except fuels) mining.....	79	7,659	1,909	2,248	699	2,803
	INDUSTRIES						
10	Metal mining, total.....	62	5,113	489	654	1,345	2,625
1011	Iron ores.....	64	1,795	220	193	744	638
1021	Copper ores.....	72	1,545	67	125	334	1,019
103	Lead and zinc ores:						
1032	Valued chiefly for lead.....	59	423	28	34	91	270
1033 (Part)	Valued chiefly for zinc.....	51	326	21	21	40	244
1033 (Part)							
1034							
104	Gold and silver ores:						
1042	Lode gold.....	42	112	8	22	12	70
1043	Placer gold.....	128	64	36	10	4	14
1044	Silver ores.....	34	36	3	8	6	19
1051	Bauxite.....	74	49	6	11	12	20
106	Ferro-alloy ores, except vanadium:						
1062	Manganese ores.....	47	106	14	27	15	50
1064	Tungsten ores.....	59	156	13	47	8	88
1063	Molybdenum ores and Ferro-alloy ores, except vanadium,						
1069	n.e.c.....	55	107	23	18	11	55
1081	Metal mining contract services.....	53	152	26	53	41	32
109	Miscellaneous metal ores:						
1092	Mercury ores.....	31	12	1	4	1	6
1094	Uranium-radium-vanadium ores.....	56	165	14	69	15	67
1093	Titanium ores and Metallic ores, n.e.c.....	97	65	9	12	11	33
1099							
11	Anthracite mining, total.....	46	1,506	220	219	285	782
1111	Anthracite.....	37	1,072	97	79	189	707
1112	Anthracite stripping contract services.....	106	433	123	140	96	74
1113	Anthracite contract services, except stripping.....	11	1	(1)	(1)	(1)	1
12	Bituminous coal and lignite mining, total.....	32	6,332	1,141	1,077	1,318	2,796
1211	Bituminous coal.....	31	6,093	1,036	1,017	1,302	2,738
1212	Lignite.....	148	75	40	18	4	13
1213	Bituminous coal and lignite mining contract services.....	123	164	65	42	12	45
13	Crude petroleum and natural gas extraction, total.....	85	20,101	...	7,162	...	12,939
1312	Crude petroleum and natural gas.....	83	9,123	...	3,134	...	5,989
1313							
1314	Natural gas liquids.....	214	2,902	...	106	...	2,796
1315							
133	Oil and gas field contract services:						
1331	Drilling oil and gas wells.....	69	4,265	...	1,064	...	3,201
1332	Building, repairing, and dismantling rigs and derricks.....	25	39	...	33	...	6
1339	Oil and gas field contract services, n.e.c.....	78	3,772	...	2,825	...	947

See footnotes at end of table.

INDUSTRIES IN THE UNITED STATES, BY INDUSTRY GROUP AND INDUSTRY: 1954

captions, see INTRODUCTION)

Prime movers (1,000 horsepower)							Electric motors (1,000 horsepower)						Code
Total	By type of equipment			By use		Total	By type of equipment			By source of energy			
	Loading equipment	Transportation equipment		All other equipment	Driving generators		Not driving generators	Loading equipment	Transportation equipment	All other equipment	Driven by purchased energy	Driven by energy generated and used at same establishment	
		Highway type	Other										
30,547	2,497	11,360	1,845	14,845	2,326	28,221	11,745	1,379	2,012	8,354	10,164	1,581	
2,823	224	654	901	1,044	861	1,962	2,978	314	571	2,093	2,290	688	10
703	103	219	118	263	116	587	906	140	178	588	803	103	11
2,656	539	1,077	213	827	311	2,345	3,800	617	1,155	2,028	3,676	124	12
18,804	...	7,162	...	11,642	750	18,054	1,697	...	...	1,697	1,297	400	13
5,561	1,631	2,248	613	1,069	288	5,273	2,364	308	108	1,948	2,098	266	14
2,823	224	654	901	1,044	861	1,962	2,978	314	571	2,093	2,290	688	10
950	82	193	519	156	164	786	1,024	167	297	560	845	179	1011
1,031	38	125	247	621	591	440	914	42	132	740	514	400	1021
94	11	34	11	38	23	71	352	18	81	253	329	23	{ 1032 1033 (Part)
75	11	21	18	25	18	57	259	11	23	225	251	8	{ 1033 (Part) 1034
64	5	22	5	32	17	47	98	3	18	77	48	50	1042
29	8	10	3	8	6	23	39	30	(1)	9	35	4	1043
17	3	8	1	5	1	16	20	1	4	15	19	1	1044
31	3	11	12	5	(1)	31	18	3	(1)	15	18	...	1051
65	13	27	7	18	5	60	43	1	8	34	41	2	1062
106	11	47	5	43	19	87	59	2	2	55	50	9	1064
34	4	18	6	6	2	32	75	20	6	49	73	2	{ 1063 1069
138	18	53	41	26	5	133	18	10	(1)	8	14	4	1081
9	1	4	1	3	1	8	4	(1)	(1)	4	3	1	1092
150	13	69	15	53	8	142	20	1	(1)	19	15	5	1094
30	3	12	10	5	1	29	35	5	(1)	30	35	(1)	{ 1093 1099
703	103	219	118	263	116	587	906	140	178	588	803	103	11
319	21	79	23	196	104	215	839	86	177	576	753	86	1111
383	82	140	95	66	12	371	67	54	1	12	50	17	1112
1	...	(1)	...	1	...	1	...	...	...	...	...	...	1113
2,656	539	1,077	213	827	311	2,345	3,800	617	1,155	2,028	3,676	124	12
2,469	475	1,017	198	779	307	2,162	3,741	576	1,148	2,017	3,624	117	1211
45	17	18	3	7	1	44	31	23	1	7	30	1	1212
142	47	42	12	41	3	139	28	18	6	4	22	6	1213
18,804	...	7,162	...	11,642	750	18,054	1,697	...	...	1,697	1,297	400	13
7,962	...	3,134	...	4,828	184	7,778	1,257	...	...	1,257	1,161	96	{ 1312 1313
2,808	...	106	...	2,702	293	2,515	302	...	...	302	94	208	{ 1314 1315
4,247	...	1,064	...	3,183	215	4,032	107	...	...	107	18	89	1331
39	...	33	...	6	1	38	...	...	...	...	...	...	1332
3,748	...	2,825	...	923	57	3,691	31	...	...	31	24	7	1339

Table 2.—HORSEPOWER OF POWER EQUIPMENT USED IN THE MINERAL

(For explanation of column

Code	Industry group and industry	Aggregate horsepower per production worker	Aggregate horsepower (prime movers and electric motors driven by purchased energy) (1,000 horsepower)				
			Total	Loading equipment	Transportation equipment		All other equipment
					Highway type	Other	
INDUSTRIES—Continued							
14	Nonmetallic minerals (except fuels) mining, total.....	79	7,659	1,909	2,248	699	2,803
141	Dimension stone:						
1412	Dimension limestone.....	37	18	9	5	1	3
1413	Dimension granite.....	33	30	13	5	...	12
1415	Dimension marble.....	21	13	3	1	(1)	9
1417	Dimension sandstone.....	30	27	7	12	1	7
1416 } 1419 }	Dimension trap rock and Dimension stone, n.e.c.....	43	6	2	3	...	1
142	Crushed and broken stone:						
1422	Crushed and broken limestone.....	88	2,183	442	575	307	859
1423	Crushed and broken granite.....	72	169	36	37	27	69
1424	Crushed and broken slate.....	56	26	5	3	(1)	18
1425	Crushed and broken marble.....	34	13	2	4	(1)	7
1426	Crushed and broken trap rock.....	81	216	49	61	18	88
1427	Crushed and broken sandstone.....	71	108	24	22	12	50
1429	Crushed and broken stone, n.e.c.....	79	63	18	21	4	20
144	Sand and gravel:						
	Common sand and gravel.....	108	3,069	992	1,114	183	780
	Glass sand.....	48	54	11	8	4	31
	Foundry sand.....	90	87	29	34	6	18
145	Clay, ceramic, and refractory minerals:						
1452	Bentonite.....	63	36	7	11	(1)	18
1453	Fire clay.....	56	100	35	28	6	31
1454	Fuller's earth.....	46	23	6	4	(1)	13
1455	Kaolin and ball clay.....	34	97	22	35	7	33
1456	Feldspar.....	52	29	4	11	(1)	14
1457	Magnesite and brucite.....	115	13	2	6	2	3
1459	Clay, ceramic, and refractory minerals, n.e.c.....	57	60	18	16	5	21
146	Natural abrasives, except sand.....	57	14	2	3	2	7
147	Chemical and fertilizer mineral mining:						
1472	Barite.....	65	68	10	23	5	30
1473	Fluorspar.....	49	49	6	10	1	32
1474	Potash, soda, and borate minerals.....	41	195	8	18	11	158
1475	Phosphate rock.....	78	357	78	56	37	186
1476	Rock salt.....	29	47	8	3	9	27
1477	Sulfur.....	52	159	5	29	29	96
1479	Chemical and fertilizer mineral mining, n.e.c.....	44	52	5	7	3	37
1481	Nonmetallic minerals (except fuels) contract services.....	63	38	11	20	...	7
149	Miscellaneous nonmetallic minerals (except fuels):						
1492	Gypsum.....	71	29	5	6	2	16
1493	Mica.....	(2)	17	4	4	1	8
1494	Native asphalt and bitumens.....	69	32	4	11	1	16
1495	Pumice and pumicite.....	115	26	7	10	3	6
1496	Talc, soapstone, and pyrophyllite.....	28	36	6	9	2	19
1498	Peat.....	74	24	8	10	2	4
1497 } 1499 }	Vermiculite and Nonmetallic minerals, n.e.c.....	55	76	6	13	8	49

¹Less than 500 horsepower.²Not computed since the number of proprietors and firm members performing manual labor exceeds one-third of the number of production and development workers.

INDUSTRIES IN THE UNITED STATES, BY INDUSTRY GROUP AND INDUSTRY: 1954—Continued

captions, see INTRODUCTION)

Prime movers (1,000 horsepower)							Electric motors (1,000 horsepower)						Code
Total	By type of equipment			By use		Total	By type of equipment			By source of energy			
	Loading equipment	Transportation equipment		All other equipment	Driving generators		Not driving generators	Loading equipment	Transportation equipment	All other equipment	Driven by purchased energy	Driven by energy generated and used at same establishment	
Highway type		Other											
5,561	1,631	2,248	613	1,069	288	5,273	2,364	308	108	1,948	2,098	266	14
13	6	5	1	1	...	13	5	3	...	2	5	...	1412
17	7	5	...	5	...	17	13	6	...	7	13	...	1413
7	(1)	1	...	6	5	2	11	3	(1)	8	6	5	1415
26	7	12	1	6	...	26	1	(1)	(1)	1	1	...	1417
6	2	3	...	1	...	6	(1)	(1)	...	(1)	(1)	...	{ 1416 1419
1,583	389	575	275	344	81	1,502	659	62	41	556	600	59	1422
106	31	37	27	11	3	103	64	5	(1)	59	63	1	1423
5	2	3	(1)	...	...	5	21	4	...	17	21	...	1424
7	2	4	(1)	1	...	7	6	(1)	(1)	6	6	...	1425
141	41	61	18	21	2	139	76	8	1	67	75	1	1426
73	23	22	12	16	1	72	36	1	(1)	35	35	1	1427
49	15	21	4	9	2	47	15	2	(1)	13	14	1	1429
2,498	884	1,114	171	329	45	2,453	599	113	19	467	571	28	
22	9	8	4	1	...	22	32	3	(1)	29	32	...	
68	23	34	5	6	1	67	19	6	(1)	13	19	(1)	
20	7	11	(1)	2	...	20	16	(*)	...	16	16	...	1452
82	34	28	4	16	1	81	18	1	2	15	18	(1)	1453
12	5	4	(1)	3	...	12	11	1	...	10	11	...	1454
64	21	35	4	4	1	63	33	1	3	29	33	(1)	1455
18	3	11	(1)	4	(1)	18	11	(1)	(1)	11	11	...	1456
10	2	6	2	...	...	10	3	...	...	3	3	...	1457
41	17	16	3	5	1	40	20	1	2	17	19	1	1459
12	2	3	2	5	3	9	4	(1)	...	4	2	2	146
41	9	23	5	4	(1)	41	27	1	...	26	27	(1)	1472
28	4	10	1	13	6	22	30	2	1	27	21	9	1473
112	2	18	4	88	74	38	173	9	9	155	83	90	1474
117	25	56	17	19	14	103	256	58	20	178	240	16	1475
17	4	3	3	7	8	9	37	5	8	24	30	7	1476
156	5	29	29	93	32	124	45	5	...	40	3	42	1477
19	3	7	2	7	...	19	33	3	1	29	33	...	1479
37	11	20	...	7	...	37	1	(1)	...	1	1	...	1481
16	4	6	2	4	(1)	16	13	1	(1)	12	13	(1)	1492
13	4	4	1	4	(1)	13	4	(1)	...	4	4	(1)	1493
23	4	11	1	7	4	19	11	1	1	9	9	2	1494
22	7	10	3	2	(1)	22	4	(1)	(1)	4	4	(1)	1495
20	4	9	2	5	2	18	17	2	(1)	15	16	1	1496
22	8	10	2	2	...	22	2	(1)	...	2	2	...	1498
38	5	13	8	11	2	36	38	1	...	37	38	(1)	{ 1497 1499

MINERAL INDUSTRIES--SUMMARY STATISTICS

Table 3.--HORSEPOWER OF POWER EQUIPMENT USED IN THE MINERAL INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954 AND 1939
 (For explanation of column captions, see INTRODUCTION. For 1954 excludes, but for 1939 includes, data for dimension and crushed stone, clay, and gypsum mines operated as part of manufacturing establishments)

Geographic division and State	Aggregate horsepower per production worker	Aggregate horsepower (prime movers and electric motors driven by purchased energy) (1,000 horsepower)	Prime movers (1,000 horsepower)	Electric motors (1,000 horsepower)		
				Total	Driven by purchased energy	Driven by energy generated and used at same establishment
United States, total.....1954..	63	40,711	30,547	11,745	10,164	1,581
.....1939..	18	14,160	8,149	7,649	6,011	1,638
New England.....1954..	74	257	186	72	71	1
.....1939..	33	143	67	86	76	10
Maine.....1954..	62	18	15	3	3	(1)
.....1939..	29	11	5	7	6	1
New Hampshire.....1954..	58	14	11	3	3	...
.....1939..	25	7	5	2	2	...
Vermont.....1954..	43	51	26	25	25	...
.....1939..	20	32	6	32	26	6
Massachusetts.....1954..	92	91	70	21	21	...
.....1939..	48	58	31	29	27	2
Rhode Island.....1954..	136	19	16	3	3	...
.....1939..	33	7	4	3	3	...
Connecticut.....1954..	106	64	48	17	16	1
.....1939..	45	28	16	13	12	1
Middle Atlantic.....1954..	48	4,994	2,733	2,434	2,261	173
.....1939..	14	2,772	1,216	2,181	1,556	625
New York.....1954..	89	681	422	267	259	8
.....1939..	41	285	150	148	135	13
New Jersey.....1954..	60	208	132	85	76	9
.....1939..	27	91	46	61	45	16
Pennsylvania.....1954..	44	4,105	2,179	2,082	1,926	156
.....1939..	12	2,396	1,020	1,972	1,376	596
East North Central.....1954..	62	4,274	2,803	1,704	1,471	233
.....1939..	20	1,953	1,080	1,096	873	223
Ohio.....1954..	60	1,043	763	297	280	17
.....1939..	15	367	205	196	162	34
Indiana.....1954..	57	544	339	219	205	14
.....1939..	21	239	100	157	139	18
Illinois.....1954..	54	1,429	834	638	595	43
.....1939..	19	839	497	437	342	95
Michigan.....1954..	68	940	631	443	309	134
.....1939..	29	435	248	262	187	75
Wisconsin.....1954..	91	318	236	107	82	25
.....1939..	35	73	30	44	43	1
West North Central.....1954..	85	3,649	2,869	946	780	166
.....1939..	28	1,125	688	499	437	62
Minnesota.....1954..	89	1,229	878	451	351	100
.....1939..	46	318	175	148	143	5
Iowa.....1954..	121	284	251	34	33	1
.....1939..	12	66	31	40	35	5
Missouri.....1954..	73	488	259	230	229	1
.....1939..	24	224	69	159	155	4
North Dakota.....1954..	76	107	105	4	2	2
.....1939..	17	15	8	7	7	...
South Dakota.....1954..	52	130	106	71	24	47
.....1939..	18	46	38	38	8	30
Nebraska.....1954..	110	158	145	14	13	1
.....1939..	34	16	8	8	8	...
Kansas.....1954..	84	1,253	1,125	142	128	14
.....1939..	32	440	359	99	81	18
South Atlantic.....1954..	33	3,274	1,539	1,784	1,735	49
.....1939..	9	1,334	408	1,094	926	168
Delaware, Maryland, and the District of Columbia.....1954..	68	124	102	22	22	...
.....1939..	12	42	23	28	19	9
Virginia.....1954..	28	408	205	210	203	7
.....1939..	8	146	33	121	113	8
West Virginia.....1954..	28	1,946	804	1,166	1,142	24
.....1939..	9	934	262	785	672	113
North Carolina.....1954..	35	131	89	43	42	1
.....1939..	15	26	16	11	10	1
South Carolina.....1954..	63	86	58	28	28	...
.....1939..	16	20	8	13	12	1
Georgia.....1954..	42	164	106	58	58	(1)
.....1939..	13	49	22	29	27	2
Florida.....1954..	75	415	175	257	240	17
.....1939..	38	117	44	107	73	34

See footnotes at end of table.

POWER EQUIPMENT

E-9

Table 3.—HORSEPOWER OF POWER EQUIPMENT USED IN THE MINERAL INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954 AND 1939—Continued

Geographic division and State	Aggregate horsepower per production worker	Aggregate horsepower (prime movers and electric motors driven by purchased energy) (1,000 horsepower)	Prime movers (1,000 horsepower)	Electric motors (1,000 horsepower)		
				Total	Driven by purchased energy	Driven by energy generated and used at same establishment
East South Central.....1954..	33	1,973	1,083	910	890	20
.....1939..	8	737	195	660	542	118
Kentucky.....1954..	26	943	501	458	442	16
.....1939..	6	332	97	270	235	35
Tennessee.....1954..	41	360	207	156	153	3
.....1939..	12	137	42	99	95	4
Alabama.....1954..	32	418	142	276	276	(¹)
.....1939..	10	254	47	286	207	79
Mississippi.....1954..	82	252	233	20	19	1
.....1939..	24	14	9	5	5	...
West South Central.....1954..	84	13,836	12,865	1,316	971	345
.....1939..	31	3,144	2,851	427	293	134
Arkansas.....1954..	69	359	283	76	76	...
.....1939..	20	137	104	33	33	...
Louisiana.....1954..	80	2,354	2,278	174	76	98
.....1939..	28	340	316	39	24	15
Oklahoma.....1954..	76	2,300	2,017	320	283	37
.....1939..	39	1,027	946	136	81	55
Texas.....1954..	90	8,823	8,287	746	536	210
.....1939..	31	1,640	1,485	219	155	64
Mountain.....1954..	69	4,710	3,354	1,878	1,366	522
.....1939..	22	1,472	649	1,081	823	258
Montana.....1954..	60	538	257	282	281	1
.....1939..	22	230	59	175	171	4
Idaho.....1954..	54	223	113	115	110	5
.....1939..	18	83	22	67	61	6
Wyoming.....1954..	91	682	553	161	129	32
.....1939..	21	129	85	79	44	35
Colorado.....1954..	65	701	517	200	184	16
.....1939..	15	201	69	157	132	25
New Mexico.....1954..	71	825	719	196	106	90
.....1939..	21	166	148	76	18	58
Arizona.....1954..	81	889	683	431	206	225
.....1939..	30	282	210	197	72	125
Utah.....1954..	49	498	295	330	203	127
.....1939..	29	275	17	259	258	1
Nevada.....1954..	77	354	217	163	137	26
.....1939..	21	106	39	71	67	4
Pacific.....1954..	113	3,744	3,115	701	629	72
.....1939..	38	1,480	995	526	485	41
Washington.....1954..	159	400	312	97	88	9
.....1939..	20	78	34	49	44	5
Oregon.....1954..	110	141	116	25	25	(¹)
.....1939..	25	33	21	15	12	3
California.....1954..	103	3,203	2,687	579	516	63
.....1939..	41	1,369	940	462	429	33

¹Less than 500 horsepower.

MINERAL INDUSTRIES—SUMMARY STATISTICS

Table 4.—NUMBER OF POWER-LOADING AND EARTH-MOVING MACHINES IN THE MINERAL INDUSTRIES, BY KIND OF POWER USED AND MAJOR TYPES, BY INDUSTRY GROUP: 1954 AND 1939

Industry group		Surface loading equipment								
		Total	By kind of power used				By major type of equipment			
			Steam	Electric and Diesel-electric	Diesel	Gasoline and other	Power shovels	Dragline excavators	Scraper loaders	Other equipment
All mineral industries ¹	1954..	31,147	439	4,289	15,878	10,541	11,244	4,709	2,047	13,147
	1939..	11,496	2,543	2,822	² 6,131	(²)	5,518	1,614	515	3,849
Metal mining ³	1954..	2,709	51	721	1,282	655	1,099	192	313	1,105
	1939..	995	177	331	² 487	(²)	530	219	85	161
Iron ores.....	1954..	778	20	295	402	61	551	61	45	121
	1939..	335	154	108	² 73	(²)	273	13	36	13
Copper ores.....	1954..	434	18	204	101	111	164	10	25	235
	1939..	111	5	79	² 27	(²)	81	3	3	24
Lead and zinc ores.....	1954..	225	12	74	57	82	54	20	25	126
	1939..	61	7	13	² 41	(²)	41	3	5	12
Gold and silver ores.....	1954..	265	...	68	94	103	39	37	12	177
	1939..	428	3	115	² 310	(²)	102	195	34	97
Bauxite.....	1954..	42	...	4	32	6	25	8	1	8
	1939..	13	8	1	² 4	(²)	9	...	1	3
Ferro-alloy ores, except vanadium.....	1954..	445	...	19	283	143	128	28	118	171
	1939..	28	...	11	² 17	(²)	13	2	1	12
Metal mining contract services ⁴	1954..	174	...	11	154	9	54	13	10	97
Miscellaneous metal ores.....	1954..	346	1	46	159	140	84	15	77	170
	1939..	19	...	4	² 15	(²)	11	3	5	...
Anthracite mining ³	1954..	946	25	185	539	197	349	331	4	262
	1939..	470	34	100	² 336	(²)	168	190	13	99
Bituminous coal and lignite mining ³	1954..	6,939	18	507	5,757	657	2,692	809	(NA)	3,438
	1939..	1,050	239	191	² 620	(²)	760	196	5	79
Nonmetallic minerals (except fuels) mining ³	1954..	20,553	345	2,876	8,300	9,032	7,104	3,377	1,730	8,342
	1939..	8,860	2,083	2,179	² 4,598	(²)	3,991	998	394	3,477
Dimension stone.....	1954..	1,103	67	559	153	324	134	19	38	912
	1939..	739	226	328	² 185	(²)	96	8	2	633
Crushed and broken stone.....	1954..	5,558	99	581	2,711	2,167	3,054	299	621	1,584
	1939..	2,546	829	553	² 1,164	(²)	1,780	98	78	590
Sand and gravel.....	1954..	11,482	148	1,298	4,365	5,671	3,228	2,726	694	4,834
	1939..	4,051	624	856	² 2,571	(²)	1,214	667	253	1,917
Clay, ceramic, and refractory minerals.....	1954..	950	7	42	514	387	399	109	182	260
	1939..	975	288	225	² 462	(²)	745	110	37	83
Natural abrasives, except sand.....	1954..	22	...	1	10	11	10	1	5	6
	1939..	35	26	3	² 6	(²)	10	3	...	22
Chemical and fertilizer mineral mining.....	1954..	772	10	341	261	160	133	162	87	390
	1939..	340	59	173	² 108	(²)	64	86	20	170
Nonmetallic minerals (except fuels) contract services ⁴	1954..	122	...	5	79	38	25	17	4	76
Miscellaneous nonmetallic minerals (except fuels).....	1954..	544	14	49	207	274	121	44	99	280
	1939..	174	31	41	² 102	(²)	82	26	4	62

See footnotes at end of table.

Table 4.—NUMBER OF POWER-LOADING AND EARTH-MOVING MACHINES IN THE MINERAL INDUSTRIES, BY KIND OF POWER USED AND MAJOR TYPES, BY INDUSTRY GROUP: 1954 AND 1939—Continued

Industry group		Underground loading equipment						
		Total	By kind of power used			By major type of equipment		
			Electric and Diesel-electric	Compressed air	Diesel, gasoline, and other	Shovel loaders	Scraper loaders	Other equipment
All mineral industries ¹	1954..	18,918	13,856	4,517	545	2,209	6,676	10,035
	1939..	11,222	10,136	1,068	18	556	3,619	7,047
Metal mining ³	1954..	7,822	3,728	3,731	363	1,869	5,945	8
	1939..	3,184	2,352	830	2	426	2,756	2
Iron ores.....	1954..	2,843	2,119	632	92	279	2,564	...
	1939..	1,849	1,728	121	...	16	1,833	...
Copper ores.....	1954..	1,204	283	890	31	315	889	...
	1939..	567	209	358	...	147	420	...
Lead and zinc ores.....	1954..	2,140	927	1,066	147	725	1,413	2
	1939..	432	299	133	...	136	296	...
Gold and silver ores.....	1954..	540	78	450	12	243	293	4
	1939..	274	66	206	2	119	153	2
Bauxite.....	1954..	9	9	...	...	8	...	1
	1939..	1	...	1	...	1	...	...
Ferro-alloy ores, except vanadium.....	1954..	686	289	343	54	167	518	1
	1939..	58	50	8	...	4	54	...
Metal mining contract services ⁴	1954..	14	6	6	2	3	11	...
Miscellaneous metal ores.....	1954..	386	17	344	25	129	257	...
	1939..	3	...	3	...	3	...	...
Anthracite mining ³	1954..	2,682	2,182	500	...	...	367	2,315
	1939..	2,667	2,470	197	...	...	572	2,095
Bituminous coal and lignite mining ³	1954..	7,554	7,553	1	...	...	44	7,510
	1939..	5,081	5,066	11	4	...	141	4,940
Nonmetallic minerals (except fuels) mining ³	1954..	860	393	285	182	340	320	200
	1939..	217	183	22	12	124	84	9
Dimension stone.....	1954..	11	9	...	2	3	...	8
	1939..	1	1	...	...	...	1	...
Crushed and broken stone.....	1954..	231	86	14	131	177	34	20
	1939..	112	98	4	10	89	21	2
Sand and gravel.....	1954..	...	...	...	...	...	...	...
	1939..	...	...	...	...	...	...	...
Clay, ceramic, and refractory minerals.....	1954..	64	38	11	15	8	26	30
	1939..	5	4	...	1	2	...	3
Natural abrasives, except sand.....	1954..	4	...	2	2	2	2	...
	1939..	...	...	...	...	...	...	...
Chemical and fertilizer mineral mining.....	1954..	451	241	192	18	135	198	118
	1939..	80	69	11	...	27	51	2
Nonmetallic minerals (except fuels) contract services ⁴	1954..	3	2	...	1	...	2	1
Miscellaneous nonmetallic minerals (except fuels).....	1954..	96	17	66	13	15	58	23
	1939..	19	11	7	1	6	11	2

NA Not available. ¹For 1954 and 1939, excludes statistics for the Crude petroleum and natural gas extraction industries. For 1939, includes data for dimension stone, crushed and broken stone, clay, and gypsum mining operations which are included as part of establishments classified in the manufacturing industries for 1954 and for which no data are included in this table. ²Figures for "Gasoline and other" are included with those for "Diesel". ³For 1939, represents producing operations only and excludes contract service operations, except stripping contract services for the Anthracite mining industries. ⁴For 1939, separate statistics for contract service operations by industry served are not available.

MINERAL INDUSTRIES—SUMMARY STATISTICS

Table 5.—NUMBER OF POWER LOADING AND EARTH MOVING MACHINES IN THE MINERAL INDUSTRIES IN THE UNITED STATES

Type of loading equipment		All mineral industries, total ¹		Metal mining					
		1954	1939	Total		Iron ores	Copper ores	Lead and zinc ores	
				1954	1939 ²			Valued chiefly for lead	Valued chiefly for zinc
1	Surface loading equipment, total.....	31,147	11,496	2,709	995	778	434	134	91
	By kind of power used:								
2	Steam.....	439	2,543	51	177	20	18	11	1
3	Electric and Diesel-electric.....	4,289	2,822	721	331	295	204	33	41
4	Diesel.....	15,878	6,131	{ 1,282	487	{ 402	101	32	25
5	Gasoline and other.....	10,541							
6	Power shovels, total.....	11,244	5,518	1,099	530	551	164	29	25
	By kind of power used:								
7	Steam.....	133	1,588	15	156	14	...	...	...
8	Electric and Diesel-electric.....	1,306	1,104	412	172	277	116	3	...
9	Diesel.....	5,890	2,826	{ 484	202	{ 220	30	11	14
10	Gasoline and other.....	3,915								188	40	18	15	11
	By dipper or bucket capacity (cubic yards):								
11	Less than 3.....	9,929	4,845	705	322	299	51	28	25
12	3-5 inclusive.....	950	534	263	193	172	72	...	...
13	6-12 inclusive.....	276	139	{ 130	15	{ 80	41	...	...
14	More than 12.....	89							
15	Dragline excavators, total.....	4,709	1,614	192	219	61	10	14	6
	By kind of power used:								
16	Steam.....	30	141	...	2	...	...	...	...
17	Electric and Diesel-electric.....	506	389	24	49	10	...	2	3
18	Diesel.....	2,499	1,084	{ 105	168	{ 41	5	2	...
19	Gasoline and other.....	1,674								63	10	5	10	3
	By dipper or bucket capacity (cubic yards):								
20	Less than 3.....	3,741	1,397	166	204	42	10	14	6
21	3-5 inclusive.....	674	166	17	13	11	...	...	...
22	6-12 inclusive.....	233	51	{ 8	2	7	...	...	...
23	More than 12.....	61							
24	Scraper loaders, total.....	2,047	515	313	85	45	25	17	8
	By kind of power used:								
25	Steam.....	8	6	5	...	4	1	...	...
26	Electric and Diesel-electric.....	239	167	27	29	7	1	2	2
27	Diesel.....	1,016	342	{ 153	56	{ 31	6	5	3
28	Gasoline and other.....	784								128	3	17	10	3
	By rated horsepower:								
29	Less than 10.....	478	96	45	38	6	...	1	3
30	10-25 inclusive.....	260	183	65	34	12	4	6	1
31	26-100 inclusive.....	931	221	158	11	6	14	9	4
32	More than 100.....	378	15	45	2	21	7	1	...
33	Clamshell and orange peel loaders, total.....	1,675	1,272	10	3	...	6	...	...
	By kind of power used:								
34	Steam.....	79	414	...	1	...	...	...	...
35	Electric and Diesel-electric.....	198	154	6	1	...	6	...	...
36	Diesel.....	591	704	{ ...	1	{ ...	...	...	...
37	Gasoline and other.....	807							
38	Cranes and hoists, total.....	1,698	846	464	45	11	181	58	44
	By kind of power used:								
39	Steam.....	121	246	31	16	2	17	11	1
40	Electric and Diesel-electric.....	372	351	200	7	1	80	26	36
41	Diesel.....	208	249	{ 41	22	{ 6	26	1	...
42	Gasoline and other.....	497								192	2	58	20	7
43	Pumps, total.....	1,601	795	22	11	...	...	...	...
	By kind of power used:								
44	Steam.....	20	84	...	2	...	...	...	...
45	Electric and Diesel-electric.....	694	449	3	9	...	...	...	...
46	Diesel.....	552	262	{ 14	...	...	...	...	...
47	Gasoline and other.....	335							
48	Dredges, total.....	308	164	36	67	...	1	...	...
	By kind of power used:								
49	Steam.....	39	47	...	...	...	...	...	...
50	Electric and Diesel-electric.....	110	91	34	62	...	1	...	...
51	Diesel.....	71	26	{ 2	5	{ ...	...	...	...
52	Gasoline and other.....	88							
53	All other types of equipment, total ⁵	7,865	772	573	35	110	47	16	8
	By kind of power used:								
54	Steam.....	9	17	...	...	...	...	...	...
55	Electric and Diesel-electric.....	364	117	15	2	...	...	...	...
56	Diesel.....	5,051	638	{ 483	33	{ 104	34	13	8
57	Gasoline and other.....	2,441								75	6	13	3	...

See footnotes at end of table.

BY KIND OF POWER USED AND DETAILED TYPES, BY INDUSTRY, 1954, AND BY MAJOR INDUSTRY GROUP, 1954 AND 1939

Metal mining—Continued											
Gold and silver ores			Bauxite	Ferro-alloy ores, except vanadium			Metal mining contract services	Miscellaneous metal ores			
Lode gold	Placer gold	Silver ores		Manganese ores	Tungsten ores	Molybdenum ores and Ferro-alloy ores, except vanadium, n.e.c.		Mercury ores	Uranium-radium-vanadium ores	Titanium ores and Metallic ores, n.e.c.	
79	154	32	42	197	144	104	174	19	284	43	1
...	...	...	...	...	...	...	...	...	...	1	2
15	45	8	4	9	5	5	11	...	31	15	3
21	66	7	32	125	93	65	154	10	130	19	4
43	43	17	6	63	46	34	9	9	123	8	5
23	11	5	25	51	52	25	54	8	65	11	6
...	...	...	...	...	...	...	...	...	...	1	7
1	...	...	1	...	...	...	11	...	...	3	8
8	6	1	18	35	35	10	41	4	47	4	9
14	5	4	6	16	17	15	2	4	18	3	10
19	11	5	25	51	47	24	38	8	64	10	11
4	...	...	...	...	5	1	7	...	1	1	12
...	...	...	...	...	...	...	9	...	...	...	13
...	...	...	...	...	...	...	...	...	...	...	14
6	30	1	8	13	13	2	13	...	5	10	15
...	...	...	...	...	...	...	...	...	...	...	16
...	2	...	3	1	1	...	...	...	...	2	17
...	21	...	5	4	5	2	12	...	1	7	18
6	7	1	...	8	7	...	1	...	4	1	19
6	28	1	6	11	13	2	12	...	5	10	20
...	2	...	1	2	...	...	1	...	...	...	21
...	...	...	1	...	...	...	...	...	...	...	22
...	...	...	...	...	...	...	...	...	...	...	23
6	4	2	1	50	44	24	10	3	64	10	24
...	...	...	...	...	...	...	...	...	...	...	25
1	...	...	...	3	4	...	...	...	5	2	26
2	1	1	1	24	25	13	9	...	28	4	27
3	3	1	...	23	15	11	1	3	31	4	28
1	...	...	1	7	7	4	3	2	10	...	29
3	...	...	...	10	10	5	3	...	6	5	30
2	3	2	...	28	22	14	3	1	47	3	31
...	1	...	...	5	5	1	1	...	1	2	32
...	...	...	...	...	...	...	4	...	...	...	33
...	...	...	...	...	...	...	...	...	...	...	34
...	...	...	...	...	...	...	...	...	...	...	35
...	...	...	...	...	...	...	...	...	...	...	36
...	...	...	...	...	...	...	4	...	...	...	37
34	2	17	...	10	1	4	...	...	98	4	38
...	...	...	...	...	...	...	...	...	...	...	39
13	...	8	...	5	...	3	...	...	25	3	40
2	...	...	...	...	1	...	...	...	4	1	41
19	2	9	...	5	...	1	...	...	69	...	42
...	8	...	4	10	...	...	...	...	...	...	43
...	...	...	...	...	...	...	...	...	...	...	44
...	3	...	...	...	...	...	...	...	...	...	45
...	...	...	4	10	...	...	...	...	...	...	46
...	5	...	...	...	...	...	...	...	...	...	47
...	27	...	...	...	...	2	...	...	1	5	48
...	...	...	...	...	...	...	...	...	...	...	49
...	25	...	...	...	...	2	...	...	1	5	50
...	2	...	...	...	...	...	...	...	...	...	51
...	...	...	...	...	...	...	...	...	...	...	52
10	72	7	4	63	34	47	93	8	51	3	53
...	...	...	...	...	...	...	...	...	...	...	54
...	15	...	...	...	...	...	...	...	...	...	55
9	36	5	4	52	27	40	92	6	50	3	56
1	³ 21	2	...	11	7	7	1	2	1	...	57

Table 5.—NUMBER OF POWER LOADING AND EARTH MOVING MACHINES IN THE MINERAL INDUSTRIES IN THE UNITED STATES

	Type of loading equipment	All mineral industries, total ¹		Metal mining					
		1954	1939	Total		Iron ores	Copper ores	Lead and zinc ores	
				1954	1939 ²			Valued chiefly for lead	Valued chiefly for zinc
1	Underground loading equipment, total.....	18,918	11,222	7,822	3,184	2,843	1,204	1,281	859
	By kind of power used:								
2	Electric and Diesel-electric.....	13,856	10,136	3,728	2,352	2,119	283	568	359
3	Compressed air.....	4,517	1,068	3,731	830	632	890	678	388
4	Diesel.....	380		253		92	...	23	101
5	Gasoline and other.....	165	18	110	2	...	31	12	11
6	Shovel loaders requiring a minimum working height of 8 feet or less, total.....	1,676	377	1,503	343	237	273	396	168
	By kind of power used:								
7	Electric and Diesel-electric.....	259	130	200	101	15	14	115	2
8	Compressed air.....	1,353	247	1,253	242	222	259	277	143
9	Diesel.....	32	...	23	...	...	...	...	13
10	Gasoline and other.....	32	...	27	...	...	...	4	10
11	Shovel loaders requiring a minimum working height of more than 8 feet, total.....	533	179	366	83	42	42	60	101
	By kind of power used:								
12	Electric and Diesel-electric.....	114	81	46	3	22	...	2	8
13	Compressed air.....	217	90	205	80	17	42	34	17
14	Diesel.....	186		112	...	3	...	23	76
15	Gasoline and other.....	16	8	3	...	...	...	1	...
16	Scrapers loaders (including slushers), total.....	6,676	3,619	5,945	2,756	2,564	889	825	588
	By kind of power used:								
17	Electric and Diesel-electric.....	4,009	3,088	3,480	2,248	2,082	269	451	349
18	Compressed air.....	2,435	530	2,270	507	393	589	367	228
19	Diesel.....	141		116		89	...	...	10
20	Gasoline and other.....	91	1	79	1	...	31	7	1
	By rated horsepower:								
21	Less than 10.....	2,117	959	1,826	706	335	378	343	221
22	10-25 inclusive.....	3,379	2,206	3,053	1,667	1,697	453	321	263
23	26-100 inclusive.....	807	442	705	372	317	57	161	87
24	More than 100.....	373	12	361	11	215	1	...	17
25	Coal mobile loading machines ³	4,408	1,607	...	...	...	...	...	...
26	Coal hand-loaded face or room conveyors, duckbills, pit-car loaders, and self loading conveyors, total.....	5,077	5,429	...	...	...	...	...	...
	By kind of power used:								
27	Electric and Diesel-electric.....	4,606	5,225	...	...	...	...	...	...
28	Compressed air.....	471	200	...	...	...	...	...	...
29	Diesel, gasoline, and other.....	...	4	...	...	...	...	...	...
30	All other types of equipment, total ⁶	548	11	8	2	...	...	...	2
	By kind of power used:								
31	Electric and Diesel-electric.....	468	5	2	...	...	...	...	...
32	Compressed air.....	33	1	3	1	...	...	...	...
33	Diesel.....	21		2		...	...	...	2
34	Gasoline and other.....	26	5	1	1	...	...	...	...

See footnotes at end of table.

BY KIND OF POWER USED AND DETAILED TYPES, BY INDUSTRY, 1954, AND BY MAJOR INDUSTRY GROUP, 1954 AND 1939—Continued

Metal mining—Continued											
Gold and silver ores			Bauxite	Ferro-alloy ores, except vanadium			Metal mining contract services	Miscellaneous metal ores			
Lode gold	Placer gold	Silver ores		Manganese ores	Tungsten ores	Molybdenum ores and Ferro-alloy ores, except vanadium, n.e.c.		Mercury ores	Uranium-radium-vanadium ores	Titanium ores and Metallic ores, n.e.c.	
336	3	201	9	147	269	270	14	73	312	1	1
68	...	10	9	41	56	192	6	5	12	...	2
264	1	185	...	102	163	78	6	68	275	1	3
2	1	2	...	2	3	...	2	...	25	...	4
2	1	4	...	2	47	...	...	...	...	...	5
122	1	50	8	48	76	15	2	18	88	1	6
42	...	...	8	...	...	...	...	2	2	...	7
79	...	49	...	48	65	15	...	16	79	1	8
...	1	...	...	...	...	...	2	...	7	...	9
1	...	1	...	...	11	...	...	...	...	...	10
60	1	9	...	6	9	13	1	...	22	...	11
10	...	...	...	...	...	2	1	...	1	...	12
50	...	9	...	5	8	11	...	...	12	...	13
...	...	...	...	...	1	...	...	...	9	...	14
...	1	...	...	1	...	...	...	...	...	...	15
150	1	142	...	92	184	242	11	55	202	...	16
15	...	10	...	41	56	190	5	3	9	...	17
132	1	127	...	49	90	52	6	52	184	...	18
2	...	2	...	2	2	...	...	...	9	...	19
1	...	3	...	...	36	...	...	...	...	...	20
56	...	120	...	42	94	32	6	45	154	...	21
93	...	22	...	40	71	43	5	8	37	...	22
1	...	...	...	10	19	40	...	2	11	...	23
...	1	...	...	...	...	127	...	...	...	...	24
...	...	...	...	...	...	...	...	...	...	...	25
...	...	...	...	...	...	...	...	...	...	...	26
...	...	...	...	...	...	...	...	...	...	...	27
...	...	...	...	...	...	...	...	...	...	...	28
...	...	...	...	...	...	...	...	...	...	...	29
4	...	...	1	1	...	...	...	...	...	...	30
1	...	...	1	...	...	...	...	...	...	...	31
3	...	...	...	...	...	...	...	...	...	...	32
...	...	...	...	...	...	...	...	...	...	...	33
...	...	...	...	1	...	...	...	...	...	...	34

Table 5.—NUMBER OF POWER LOADING AND EARTH MOVING MACHINES IN THE MINERAL INDUSTRIES IN THE UNITED STATES

Type of loading equipment	Anthracite mining				
	Total		Anthracite	Anthracite stripping contract services	Anthracite contract services (except stripping)
	1954	1939 ²			
1 Surface loading equipment, total.....	946	470	301	624	21
By kind of power used:					
2 Steam.....	25	34	25	...	...
3 Electric and Diesel-electric.....	185	100	51	134	...
4 Diesel.....	539	336	113	420	6
5 Gasoline and other.....	197	...	112	70	15
6 Power shovels, total.....	349	168	97	252	...
By kind of power used:					
7 Steam.....	1	15	1	...	...
8 Electric and Diesel-electric.....	92	19	23	69	...
9 Diesel.....	191	45	45	146	...
10 Gasoline and other.....	65	134	28	37	...
By dipper or bucket capacity (cubic yards):					
11 Less than 3.....	258	154	80	178	...
12 3-5 inclusive.....	61	12	14	47	...
13 6-12 inclusive.....	30	2	3	27	...
14 More than 12.....	...	...	...	...	...
15 Dragline excavators, total.....	331	190	63	268	...
By kind of power used:					
16 Steam.....	2	...	2	...	...
17 Electric and Diesel-electric.....	81	45	16	65	...
18 Diesel.....	226	145	36	190	...
19 Gasoline and other.....	22	...	9	13	...
By dipper or bucket capacity (cubic yards):					
20 Less than 3.....	184	156	40	144	...
21 3-5 inclusive.....	106	26	21	85	...
22 6-12 inclusive.....	37	8	2	35	...
23 More than 12.....	4	...	...	4	...
24 Scraper loaders, total.....	4	13	4	...	...
By kind of power used:					
25 Steam.....	...	...	...	...	...
26 Electric and Diesel-electric.....	1	10	1	...	...
27 Diesel.....	...	3	...	...	...
28 Gasoline and other.....	3	...	3	...	...
By rated horsepower:					
29 Less than 10.....	3	8	3	...	...
30 10-25 inclusive.....	1	3	1	...	...
31 26-100 inclusive.....	...	2	...	...	...
32 More than 100.....	...	...	...	...	...
33 Clamshell and orange peel loaders, total.....	1	5	...	...	1
By kind of power used:					
34 Steam.....	...	3	...	...	...
35 Electric and Diesel-electric.....	...	...	...	...	...
36 Diesel.....	1	...	...	...	1
37 Gasoline and other.....	...	2	...	...	...
38 Cranes and hoists, total.....	...	4	...	...	...
By kind of power used:					
39 Steam.....	...	...	...	...	...
40 Electric and Diesel-electric.....	...	...	...	...	...
41 Diesel.....	...	4	...	...	...
42 Gasoline and other.....	...	...	...	...	...
43 Pumps, total.....	...	...	...	...	...
By kind of power used:					
44 Steam.....	...	...	...	...	...
45 Electric and Diesel-electric.....	...	...	...	...	...
46 Diesel.....	...	...	...	...	...
47 Gasoline and other.....	...	...	...	...	...
48 Dredges, total.....	71	54	68	3	...
By kind of power used:					
49 Steam.....	21	15	21	...	...
50 Electric and Diesel-electric.....	...	19	...	...	...
51 Diesel.....	6	20	3	3	...
52 Gasoline and other.....	44	...	44	...	...
53 All other types of equipment, total ⁵	190	36	69	101	20
By kind of power used:					
54 Steam.....	1	1	1	...	...
55 Electric and Diesel-electric.....	11	7	11	...	...
56 Diesel.....	115	29	29	81	5
57 Gasoline and other.....	63	28	28	20	15

See footnotes at end of table.

BY KIND OF POWER USED AND DETAILED TYPES, BY INDUSTRY, 1954, AND BY MAJOR INDUSTRY GROUP 1954 AND 1939—Continued

Bituminous coal and lignite mining					Nonmetallic minerals (except fuels) mining						
Total		Bituminous coal	Lignite	Bituminous coal and lignite mining contract services	Total		Dimension stone				
1954	1939 ²				1954	1939 ²	Limestone	Granite	Marble	Sandstone	
6,939	1,050	6,165	166	608	20,553	8,860	401	375	100	174	1
18	239	18	...	...	345	2,083	12	39	3	11	2
507	191	464	25	18	2,876	2,179	253	186	59	50	3
5,757	620 {	5,133	121	503	8,300	4,598 {	43	44	18	38	4
657		550	20	87	9,032		93	106	20	75	5
2,692	760	2,414	58	220	7,104	3,991	55	19	7	39	6
17	222	17	...	...	100	1,187	...	1	...	2	7
273	154	255	13	5	529	756	4	...	1	...	8
2,028	384 {	1,818	27	183	3,187	2,048 {	27	7	4	11	9
374		324	18	32	3,288		24	11	2	26	10
2,264	598	2,070	44	150	6,702	3,707	47	19	7	36	11
279	56	210	7	62	347	268	8	...	...	2	12
67	106 {	56	6	5	49	16 {	...	...	...	1	13
82		78	1	3	6		...	...	...	...	14
809	196	716	19	74	3,377	998	6	7	2	2	15
1	9	1	...	...	27	130	...	...	...	...	16
124	37	108	9	7	277	256	...	...	...	...	17
646	150 {	572	10	64	1,522	612 {	2	...	2	2	18
38		35	...	3	1,551		4	7	...	...	19
307	126	273	7	27	3,084	902	3	1	2	2	20
313	49	281	3	29	238	77	3	6	...	...	21
150	21 {	128	5	17	38	19 {	...	...	...	...	22
39		34	4	1	17		...	...	...	...	23
}	5	}	}	}	1,730	394	15	7	3	8	24
	3				6	...	...	...	...	...	25
	211				128	1	1	...	1	26	
	863				260 {	4	3	2	4	27	
653	10	3	1	3		28					
}	...	}	}	}	430	45	4	4	1	3	29
	194				131	1	...	...	1	30	
	773				208	8	3	2	2	31	
	333				10	2	...	...	2	32	
}	2	}	}	}	1,664	1,257	...	2	2	1	33
	79				407	...	...	...	...	...	34
	192				153	...	...	2	...	...	35
	590				697 {	...	...	...	...	...	36
803	...	2	...	1		37					
(4)	2	(4)	(4)	(4)	1,234	793	287	313	81	86	38
}	...	}	}	}	90	230	12	38	1	9	39
	672				341	246	177	56	48	40	
	167				222 {	4	26	8	3	41	
	305					25	72	16	26	42	
}	1	}	}	}	1,579	775	...	...	...	...	43
	20				82	...	...	...	...	...	44
	691				432	...	...	...	...	...	45
	538				261 {	...	...	...	...	...	46
330	...	...	...	...		...	47				
}	5	}	}	}	201	38	...	...	...	...	48
	18				32	...	...	...	...	...	49
	76				5	...	...	...	...	...	50
	63				1 {	...	...	...	...	...	51
44	...	...	...	...		...	52				
3,438	79	3,035	89	314	3,664	614	38	27	5	38	53
...	7	...	...	...	8	9	...	...	2	...	54
110	72 {	101	3	6	228	108	2	8	...	1	55
3,083		2,743	84	256	1,370	497 {	6	8	2	18	56
245		191	2	52	2,058		30	11	1	19	57

Table 5.—NUMBER OF POWER LOADING AND EARTH MOVING MACHINES IN THE MINERAL INDUSTRIES IN THE UNITED STATES

Type of loading equipment	Anthracite mining				
	Total		Anthracite	Anthracite stripping contract services	Anthracite contract services (except stripping)
	1954	1939 ²			
1 Underground loading equipment, total.....	2,682	2,667	2,656	...	26
By kind of power used:					
2 Electric and Diesel-electric.....	2,182	2,470	2,172	...	10
3 Compressed air.....	500	197	484	...	16
4 Diesel.....	...	...	...	...	...
5 Gasoline and other.....	...	...	...	...	...
6 Shovel loaders requiring a minimum working height of 8 feet or less, total.....	...	...	...	...	...
By kind of power used:					
7 Electric and Diesel-electric.....	...	...	...	...	...
8 Compressed air.....	...	...	...	...	...
9 Diesel.....	...	...	...	...	...
10 Gasoline and other.....	...	...	...	...	...
11 Shovel loaders requiring a minimum working height of more than 8 feet, total.....	...	...	...	...	...
By kind of power used:					
12 Electric and Diesel-electric.....	...	...	...	...	...
13 Compressed air.....	...	...	...	...	...
14 Diesel.....	...	...	...	...	...
15 Gasoline and other.....	...	...	...	...	...
16 Scraper loaders (including slushers), total.....	367	572	358	...	9
By kind of power used:					
17 Electric and Diesel-electric.....	354	564	353	...	1
18 Compressed air.....	13	8	5	...	8
19 Diesel.....	...	...	...	...	...
20 Gasoline and other.....	...	...	...	...	...
By rated horsepower:					
21 Less than 10.....	159	202	151	...	8
22 10-25 inclusive.....	180	354	179	...	1
23 26-100 inclusive.....	27	16	27	...	...
24 More than 100.....	1	...	1	...	...
25 Coal mobile loading machines ³	62	7	62	...	...
26 Coal hand-loaded face or room conveyors, duckbills, pit-car loaders, and self-loading conveyors, total.....	2,236	2,088	2,236	...	...
By kind of power used:					
27 Electric and Diesel-electric.....	1,765	1,899	1,765	...	...
28 Compressed air.....	471	189	471	...	...
29 Diesel, gasoline, and other.....	...	...	...	...	...
30 All other types of equipment, total ⁶	17	...	...	...	17
By kind of power used:					
31 Electric and Diesel-electric.....	9	...	...	...	9
32 Compressed air.....	8	...	...	...	8
33 Diesel.....	...	...	...	...	...
34 Gasoline and other.....	...	...	...	...	...

See footnotes at end of table.

POWER EQUIPMENT

E-19

BY KIND OF POWER USED AND DETAILED TYPES, BY INDUSTRY, 1954, AND BY MAJOR INDUSTRY GROUP, 1954 AND 1939—Continued

Bituminous coal and lignite mining					Nonmetallic minerals (except fuels) mining						
Total		Bituminous coal	Lignite	Bituminous coal and lignite mining contract services	Total		Dimension stone				
1954	1939 ²				1954	1939 ²	Limestone	Granite	Marble	Sandstone	
7,554	5,081	7,545	3	6	860	217	3	...	8	...	1
7,553	5,066	7,544	3	6	393	183	1	...	8	...	2
1	11	1	...	...	285	22	...	...	...	...	3
...	4	...	...	...	127	12	2	...	...	...	4
...		...	...	...	55		...	...	...	...	5
...	...	...	...	...	173	32	2	...	...	...	6
...	...	...	...	...	59	29	...	...	...	...	7
...	...	...	...	...	100	3	...	...	...	...	8
...	...	...	...	...	9	...	2	...	...	...	9
...	...	...	...	...	5	...	...	...	...	...	10
...	...	...	...	...	167	92	1	...	...	...	11
...	...	...	...	...	68	78	1	...	...	...	12
...	...	...	...	...	12	6	...	...	...	...	13
...	...	...	...	...	74	8	...	...	...	...	14
...	...	...	...	...	13		...	...	...	...	15
44	141	38	...	6	320	84	...	...	...	...	16
43	141	37	...	6	132	71	...	...	...	...	17
1	...	1	...	...	151	13	...	...	...	...	18
...	...	...	...	...	25	...	...	...	...	...	19
...	...	...	...	...	12	...	...	...	...	...	20
15	31	15	...	...	117	14	...	...	...	...	21
22	90	19	...	3	124	35	...	...	...	...	22
5	20	2	...	3	70	34	...	...	...	...	23
2	...	2	...	...	9	1	...	...	...	...	24
4,346	1,600	4,343	3	...	...	...	...	...	...	...	25
2,841	3,340	2,841	...	...	...	...	...	...	...	...	26
2,841	3,325	2,841	...	...	...	...	...	...	...	...	27
...	11	...	...	...	...	...	...	...	...	...	28
...	4	...	...	...	...	...	...	...	...	...	29
323	...	323	...	...	200	9	...	...	8	...	30
323	...	323	...	...	134	5	...	...	8	...	31
...	...	...	...	...	22	...	...	...	...	...	32
...	...	...	...	...	19	4	...	...	...	...	33
...	...	...	...	...	25		...	...	...	...	34

Table 5.—NUMBER OF POWER LOADING AND EARTH MOVING MACHINES IN THE MINERAL INDUSTRIES IN THE UNITED STATES

Type of loading equipment		Nonmetallic minerals (except fuels) mining—Continued				
		Dimension stone— Continued	Crushed and broken stone			
			Trap rock and Stone, n.e.c.	Limestone	Granite	Slate	Marble
1	Surface loading equipment, total.....	53	4,289	323	54	24
	By kind of power used:					
2	Steam.....	2	64	4	1	3
3	Electric and Diesel-electric.....	11	380	48	39	1
4	Diesel.....	10	2,151	181	10	5
5	Gasoline and other.....	30	1,694	90	4	15
6	Power shovels, total.....	14	2,361	186	13	12
	By kind of power used:					
7	Steam.....	2	37	2	...	2
8	Electric and Diesel-electric.....	3	256	30	4	1
9	Diesel.....	2	1,275	109	6	1
10	Gasoline and other.....	7	793	45	3	8
	By dipper or bucket capacity (cubic yards):					
11	Less than 3.....	12	2,196	164	13	12
12	3-5 inclusive.....	1	142	21	...	...
13	6-12 inclusive.....	1	19	1	...	...
14	More than 12.....	...	4	...	...	...
15	Dragline excavators, total.....	2	255	15	2	...
	By kind of power used:					
16	Steam.....	...	2	...	...	...
17	Electric and Diesel-electric.....	...	20	...	...	...
18	Diesel.....	2	137	9	2	...
19	Gasoline and other.....	...	96	6	...	...
	By dipper or bucket capacity (cubic yards):					
20	Less than 3.....	1	240	14	2	...
21	3-5 inclusive.....	...	11	1	...	...
22	6-12 inclusive.....	...	4	...	...	...
23	More than 12.....	1	...	...	...	...
24	Scraper loaders, total.....	5	489	32	...	6
	By kind of power used:					
25	Steam.....	...	...	...	...	...
26	Electric and Diesel-electric.....	2	18	5	...	...
27	Diesel.....	1	252	17	...	2
28	Gasoline and other.....	2	219	10	...	4
	By rated horsepower:					
29	Less than 10.....	2	131	14	...	1
30	10-25 inclusive.....	...	63	1	...	...
31	26-100 inclusive.....	3	208	13	...	5
32	More than 100.....	...	87	4	...	...
33	Clamshell and orange peel loaders, total.....	...	216	22	...	1
	By kind of power used:					
34	Steam.....	...	6	1	...	1
35	Electric and Diesel-electric.....	...	15	3	...	...
36	Diesel.....	...	88	16	...	...
37	Gasoline and other.....	...	107	2	...	...
38	Cranes and hoists, total.....	21	240	30	39	...
	By kind of power used:					
39	Steam.....	...	19	1	1	...
40	Electric and Diesel-electric.....	6	45	6	35	...
41	Diesel.....	2	92	13	2	...
42	Gasoline and other.....	13	84	10	1	...
43	Pumps, total.....	...	...	...	...	...
	By kind of power used:					
44	Steam.....	...	...	...	...	...
45	Electric and Diesel-electric.....	...	...	...	...	...
46	Diesel.....	...	...	...	...	...
47	Gasoline and other.....	...	...	...	...	...
48	Dredges, total.....	...	...	...	...	...
	By kind of power used:					
49	Steam.....	...	...	...	...	...
50	Electric and Diesel-electric.....	...	...	...	...	...
51	Diesel.....	...	...	...	...	...
52	Gasoline and other.....	...	...	...	...	...
53	All other types of equipment, total ⁵	11	728	38	...	5
	By kind of power used:					
54	Steam.....	...	...	...	...	...
55	Electric and Diesel-electric.....	...	26	4	...	...
56	Diesel.....	3	307	17	...	2
57	Gasoline and other.....	8	395	17	...	3

See footnotes at end of table.

BY KIND OF POWER USED AND DETAILED TYPES, BY INDUSTRY, 1954, AND BY MAJOR INDUSTRY GROUP, 1954 AND 1939—Continued

Nonmetallic minerals (except fuels) mining—Continued															
Crushed and broken stone—Continued			Sand and gravel			Clay, ceramic, and refractory minerals							Natural abrasives	Chemical and fertilizer mineral mining,	
Trap rock	Sandstone	Stone, n.e.c.	Common sand and gravel	Glass sand	Foundry sand	Bentonite	Fire clay	Fuller's earth	Kaolin and ball clay	Feldspar	Magnetite and brucite	Clay, ceramic, and refractory minerals, n.e.c.		Barite	
490	199	179	10,973	153	356	62	392	42	173	56	12	213	22	132	1
19	4	4	134	...	14	...	3	...	1	...	...	3	...	...	2
75	17	21	1,185	60	53	1	13	3	6	2	...	17	1	28	3
178	112	74	4,204	47	114	41	198	28	103	27	10	107	10	55	4
218	66	80	5,450	46	175	20	178	11	63	27	2	86	11	49	5
278	110	94	3,038	55	135	16	191	13	51	24	7	97	10	56	6
9	2	4	9	...	10	...	3	...	...	...	...	3	...	...	7
43	8	8	117	3	7	...	5	...	...	...	...	15	1	3	8
123	65	36	1,114	28	44	14	80	7	37	17	6	38	4	30	9
103	35	46	1,798	24	74	2	103	6	14	7	1	41	5	23	10
261	105	89	2,914	55	126	16	180	10	48	24	4	94	10	56	11
13	5	5	108	...	9	...	8	3	3	...	3	3	...	...	12
4	...	...	16	...	...	...	1	...	...	...	...	...	...	...	13
...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	14
9	11	7	2,672	16	38	9	32	14	31	1	...	22	1	11	15
...	...	...	24	...	...	...	...	...	1	...	...	...	...	...	16
3	...	1	190	4	7	...	1	2	2	...	...	1	...	...	17
3	8	3	1,147	...	14	3	23	11	21	1	...	13	1	8	18
3	3	3	1,311	12	17	6	8	1	7	...	...	8	...	3	19
9	11	6	2,464	14	35	9	27	10	27	1	...	20	1	8	20
...	...	...	190	2	3	...	5	3	1	...	...	2	...	3	21
...	...	1	13	...	...	...	...	1	3	...	...	...	...	...	22
...	...	...	5	...	...	1	...	...	...	...	...	...	...	...	23
51	19	24	659	10	25	24	51	5	56	13	...	33	5	35	24
1	...	...	2	...	...	...	...	...	...	...	...	...	...	...	25
1	2	12	107	2	5	...	3	...	1	...	...	...	...	...	26
16	14	8	325	7	11	21	30	5	26	5	...	23	...	5	27
33	3	4	225	1	9	3	18	...	29	8	...	10	5	5	28
20	3	4	166	2	10	...	7	...	...	1	...	6	...	29	29
...	2	3	76	1	3	...	11	...	1	3	...	4	2	1	30
16	10	6	279	2	9	20	29	5	28	9	...	16	3	5	31
15	4	11	138	5	3	4	4	...	27	...	...	7	...	...	32
29	13	8	1,285	14	22	1	8	1	...	...	...	5	...	...	33
3	2	...	59	...	4	...	...	...	...	...	...	...	...	...	34
6	...	...	147	7	4	...	...	1	...	...	...	...	...	...	35
7	5	6	433	5	9	...	2	...	...	...	...	3	...	...	36
13	6	2	646	2	5	1	6	...	...	...	...	2	...	...	37
59	15	7	...	...	...	...	...	...	...	...	...	...	...	1	38
6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	39
17	2	...	...	...	...	...	...	...	...	...	...	...	...	...	40
10	3	1	...	...	...	...	...	...	...	...	...	...	...	...	41
26	10	6	...	...	...	...	...	...	...	...	...	...	...	1	42
...	...	...	1,300	47	31	...	...	...	...	...	...	...	...	...	43
...	...	...	20	...	...	...	...	...	...	...	...	...	...	(4)	44
...	...	...	450	43	13	...	...	...	...	...	...	...	...	...	45
...	...	...	523	1	6	...	...	...	...	...	...	...	...	...	46
...	...	...	307	3	12	...	...	...	...	...	...	...	...	...	47
...	...	...	201	...	...	...	...	...	...	...	...	...	...	...	48
...	...	...	18	...	...	...	...	...	...	...	...	...	...	...	49
...	...	...	76	...	...	...	...	...	...	...	...	...	...	...	50
...	...	...	63	...	...	...	...	...	...	...	...	...	...	...	51
...	...	...	44	...	...	...	...	...	...	...	...	...	...	...	52
64	31	39	1,818	11	105	12	110	9	35	18	5	56	6	29	53
...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	54
5	5	...	98	1	17	1	4	...	3	2	...	1	...	...	55
19	17	20	599	6	30	3	63	5	19	4	4	30	5	12	56
40	9	19	1,119	4	58	8	43	4	13	12	1	25	1	17	57

Table 5.—NUMBER OF POWER LOADING AND EARTH MOVING MACHINES IN THE MINERAL INDUSTRIES IN THE UNITED STATES

Type of loading equipment		Nonmetallic minerals (except fuels) mining—Continued				
		Dimension stone— Continued Trap rock and Stone, n.e.c.	Crushed and broken stone			
			Limestone	Granite	Slate	Marble
1	Underground loading equipment, total.....	...	215	...	...	9
	By kind of power used:					
2	Electric and Diesel-electric.....	...	86	...	...	...
3	Compressed air.....	...	7	...	...	...
4	Diesel.....	...	102	...	...	9
5	Gasoline and other.....	...	20	...	...	...
6	Shovel loaders requiring a minimum working height of 8 feet or less, total.....	...	44	...	...	...
	By kind of power used:					
7	Electric and Diesel-electric.....	...	27	...	...	...
8	Compressed air.....	...	6	...	...	...
9	Diesel.....	...	7	...	...	...
10	Gasoline and other.....	...	4	...	...	...
11	Shovel loaders requiring a minimum working height of more than 8 feet, total.....	...	118	...	...	8
	By kind of power used:					
12	Electric and Diesel-electric.....	...	45	...	...	...
13	Compressed air.....	...	1	...	...	...
14	Diesel.....	...	61	...	...	8
15	Gasoline and other.....	...	11	...	...	...
16	Scraper loaders (including slushers), total.....	...	33	...	...	1
	By kind of power used:					
17	Electric and Diesel-electric.....	...	9	...	...	...
18	Compressed air.....	...	...	...	...	...
19	Diesel.....	...	19	...	...	1
20	Gasoline and other.....	...	5	...	...	...
	By rated horsepower:					
21	Less than 10.....	...	6	...	...	...
22	10-25 inclusive.....	...	3	...	...	...
23	26-100 inclusive.....	...	20	...	...	1
24	More than 100.....	...	4	...	...	...
25	Coal mobile loading machines ³.....	...	...	...	...	...
26	Coal hand-loaded face or room conveyors, duckbills, pit-car loaders, and self-loading conveyors, total.....	...	...	...	...	...
	By kind of power used:					
27	Electric and Diesel-electric.....	...	...	...	...	...
28	Compressed air.....	...	...	...	...	...
29	Diesel, gasoline, and other.....	...	...	...	...	...
30	All other types of equipment, total ⁶.....	...	20	...	...	...
	By kind of power used:					
31	Electric and Diesel-electric.....	...	5	...	...	...
32	Compressed air.....	...	...	...	...	...
33	Diesel.....	...	15	...	...	...
34	Gasoline and other.....	...	...	...	...	...

See footnotes at end of table.

BY KIND OF POWER USED AND DETAILED TYPES, BY INDUSTRY, 1954, AND BY MAJOR INDUSTRY GROUP, 1954 AND 1939—Continued

Nonmetallic minerals (except fuels) mining—Continued															
Crushed and broken stone—Continued			Sand and gravel			Clay, ceramic, and refractory minerals							Natural abrasives	Chemical and fertilizer mineral mining	
Trap rock	Sandstone	Stone, n.e.c.	Common sand and gravel	Glass sand	Foundry sand	Bentonite	Fire clay	Fuller's earth	Kaolin and ball clay	Feldspar	Magnetite and brucite	Clay, ceramic, and refractory minerals, n.e.c.		Barite	
3	...	4	...	...	...	1	48	...	5	8	...	2	4	2	1
...	35	...	...	1	...	2	...	...	2
3	...	4	...	...	...	...	6	...	5	...	...	...	2	2	3
...	2	...	...	...	...	...	...	...	4
...	1	5	...	...	7	...	...	2	...	5
...	...	4	...	...	...	...	6	...	1	...	...	...	...	2	6
...	3	...	...	...	...	...	...	...	7
...	...	4	...	...	...	...	2	...	1	...	...	...	...	2	8
...	9
...	1	...	...	...	...	...	...	...	10
3	1	...	...	...	...	...	2	...	11
...	1	...	...	...	...	...	...	...	12
3	13
...	14
...	2	...	15
...	1	20	...	4	1	...	...	2	...	16
...	15	...	...	...	...	...	...	...	17
...	4	...	4	...	...	...	2	...	18
...	19
...	1	1	...	...	1	...	...	...	...	20
...	12	...	4	...	...	...	2	...	21
...	8	...	...	...	...	...	...	...	22
...	1	...	...	...	...	...	...	...	...	23
...	1	...	...	...	...	24
...	25
...	26
...	27
...	28
...	29
...	21	...	...	7	...	2	...	...	30
...	16	...	...	1	...	2	...	...	31
...	32
...	2	...	...	...	...	...	...	...	33
...	3	...	...	6	...	...	...	...	34

Table 5.—NUMBER OF POWER LOADING AND EARTH MOVING MACHINES IN THE MINERAL INDUSTRIES IN THE UNITED STATES

Type of loading equipment		Nonmetallic minerals (except fuels) mining—Continued				
		Chemical and fertilizer mineral mining—Continued				
		Fluorspar	Potash, soda, and borate minerals	Phosphate rock	Rock salt	Sulfur
1	Surface loading equipment, total.....	91	35	401	19	56
	By kind of power used:					
2	Steam.....	3	...	4	...	3
3	Electric and Diesel-electric.....	43	12	226	11	14
4	Diesel.....	14	15	125	6	35
5	Gasoline and other.....	31	8	46	2	4
6	Power shovels, total.....	17	4	28	1	17
	By kind of power used:					
7	Steam.....	...	...	...	...	2
8	Electric and Diesel-electric.....	2	1	1	...	8
9	Diesel.....	2	2	17	...	7
10	Gasoline and other.....	13	1	10	1	...
	By dipper or bucket capacity (cubic yards):					
11	Less than 3.....	17	4	22	1	14
12	3-5 inclusive.....	...	...	1	...	3
13	6-12 inclusive.....	...	...	5	...	...
14	More than 12.....	...	...	...	...	...
15	Dragline excavators, total.....	7	10	104	4	24
	By kind of power used:					
16	Steam.....	...	...	...	...	...
17	Electric and Diesel-electric.....	1	3	37	...	...
18	Diesel.....	1	4	61	4	22
19	Gasoline and other.....	5	3	6	...	2
	By dipper or bucket capacity (cubic yards):					
20	Less than 3.....	7	10	70	4	24
21	3-5 inclusive.....	...	...	8	...	...
22	6-12 inclusive.....	...	...	15	...	...
23	More than 12.....	...	...	11	...	...
24	Scraper loaders, total.....	14	11	14	2	4
	By kind of power used:					
25	Steam.....	...	...	...	...	...
26	Electric and Diesel-electric.....	11	8	2	1	...
27	Diesel.....	2	2	8	1	3
28	Gasoline and other.....	1	1	4	...	1
	By rated horsepower:					
29	Less than 10.....	9	1	2	1	1
30	10-25 inclusive.....	2	...	1	1	...
31	26-100 inclusive.....	3	9	2	...	3
32	More than 100.....	...	1	9	...	...
33	Clamshell and orange peel loaders, total.....	...	...	9	...	8
	By kind of power used:					
34	Steam.....	...	...	2	...	1
35	Electric and Diesel-electric.....	...	...	1	...	6
36	Diesel.....	...	...	6	...	1
37	Gasoline and other.....	...	...	...	...	...
38	Cranes and hoists, total.....	27	...	...	...	...
	By kind of power used:					
39	Steam.....	3	...	...	...	...
40	Electric and Diesel-electric.....	22	...	...	...	...
41	Diesel.....	...	...	...	...	...
42	Gasoline and other.....	2	...	...	...	...
43	Pumps, total.....	...	...	201	...	...
	By kind of power used:					
44	Steam.....	...	...	...	...	...
45	Electric and Diesel-electric.....	...	...	185	...	...
46	Diesel.....	...	...	8	...	...
47	Gasoline and other.....	...	...	8	...	...
48	Dredges, total.....	...	...	...	...	...
	By kind of power used:					
49	Steam.....	...	...	...	...	...
50	Electric and Diesel-electric.....	...	...	...	...	...
51	Diesel.....	...	...	...	...	...
52	Gasoline and other.....	...	...	...	...	...
53	All other types of equipment, total ⁵	26	10	45	12	3
	By kind of power used:					
54	Steam.....	...	...	2	...	...
55	Electric and Diesel-electric.....	7	...	...	10	...
56	Diesel.....	9	7	25	1	2
57	Gasoline and other.....	10	3	18	1	1

(NA)

See footnotes at end of table.

BY KIND OF POWER USED AND DETAILED TYPES, BY INDUSTRY, 1954, AND BY MAJOR INDUSTRY GROUP, 1954 AND 1939—Continued

Nonmetallic minerals (except fuels) mining—Continued									
Chemical and fertilizer mineral mining—Con.	Nonmetallic minerals (except fuels) contract services	Miscellaneous nonmetallic minerals (except fuels)							
		Gypsum	Mica	Native asphalt and bitumens	Pumice and pumicite	Talc, soapstone, and pyrophyllite	Peat	Vermiculite and Nonmetallic minerals, n.e.c.	
Chemical and fertilizer mineral mining, n.e.c.									
38	122	65	59	37	87	62	162	72	1
...	...	...	2	12	...	...	...	...	2
7	5	...	3	3	5	17	14	7	3
11	79	45	25	15	39	26	16	41	4
20	38	20	29	7	43	19	132	24	5
10	25	17	5	28	15	15	17	24	6
...	...	...	...	12	...	...	...	...	7
...	...	...	...	2	1	...	...	5	8
4	10	15	5	11	5	10	1	13	9
6	15	2	...	3	9	5	16	6	10
7	25	14	4	28	15	15	17	21	11
3	...	3	1	...	...	...	...	2	12
...	...	...	...	...	...	...	...	1	13
...	...	...	...	...	...	...	...	...	14
2	17	1	4	2	3	2	31	1	15
...	...	...	...	...	...	...	...	...	16
1	2	...	...	1	...	1	...	...	17
...	10	...	1	...	1	1	4	1	18
1	5	1	3	1	2	...	27	...	19
2	16	1	4	2	3	2	31	1	20
...	...	...	...	...	...	...	...	...	21
...	1	...	...	...	...	...	...	...	22
...	...	...	...	...	...	...	...	...	23
7	4	21	7	1	19	7	26	18	24
...	...	...	...	...	...	...	...	...	25
2	...	...	1	...	...	...	...	...	26
1	3	16	6	...	13	4	8	15	27
4	1	5	...	1	6	3	18	3	28
1	...	...	...	1	2	1	3	...	29
3	1	2	1	...	1	...	9	...	30
3	1	16	5	...	14	6	14	16	31
...	2	3	1	...	2	...	...	2	32
1	3	...	...	2	...	...	7	4	33
...	...	...	...	...	...	...	...	...	34
...	...	...	...	...	...	...	...	...	35
1	2	...	...	2	...	...	2	2	36
...	1	...	...	...	...	...	5	2	37
2	2	...	3	2	...	16	3	...	38
...	...	...	...	...	...	...	...	...	39
...	...	...	...	...	...	12	...	...	40
...	1	...	...	2	...	...	...	...	41
2	1	...	3	...	...	4	3	...	42
...	...	...	...	...	...	...	...	...	43
...	...	...	...	...	...	...	...	...	44
...	...	...	...	...	...	...	...	...	45
...	...	...	...	...	...	...	...	...	46
...	...	...	...	...	...	...	...	...	47
...	...	...	...	...	...	...	...	...	48
...	...	...	...	...	...	...	...	...	49
...	...	...	...	...	...	...	...	...	50
...	...	...	...	...	...	...	...	...	51
...	...	...	...	...	...	...	...	...	52
16	71	26	40	2	50	22	78	25	53
...	...	...	2	...	...	...	...	...	54
4	3	...	2	...	4	4	14	2	55
5	53	14	13	...	20	11	1	10	56
7	15	12	23	2	26	7	63	13	57

Table 5.—NUMBER OF POWER LOADING AND EARTH MOVING MACHINES IN THE MINERAL INDUSTRIES IN THE UNITED STATES

Type of loading equipment	Nonmetallic minerals (except fuels) mining—Continued				
	Chemical and fertilizer mineral mining—Continued				
	Fluorspar	Potash, soda, and borate minerals	Phosphate rock	Rock salt	Sulfur
1 Underground loading equipment, total.....	131	122	97	58	...
By kind of power used:					
2 Electric and Diesel-electric.....	12	119	39	55	...
3 Compressed air.....	105	3	58	...	...
4 Diesel.....	8	...	...	3	...
5 Gasoline and other.....	6	...	...	...	...
6 Shovel loaders requiring a minimum working height of 8 feet or less, total.....	40	1	21	28	...
By kind of power used:					
7 Electric and Diesel-electric.....	...	1	...	28	...
8 Compressed air.....	40	...	21	...	...
9 Diesel.....	...	...	...	...	...
10 Gasoline and other.....	...	...	...	...	...
11 Shovel loaders requiring a minimum working height of more than 8 feet, total.....	7	1	3	21	...
By kind of power used:					
12 Electric and Diesel-electric.....	2	...	...	19	...
13 Compressed air.....	2	1	3	...	...
14 Diesel.....	3	...	...	2	...
15 Gasoline and other.....	...	...	...	...	...
16 Scraper loaders (including slushers), total.....	79	31	63	2	...
By kind of power used:					
17 Electric and Diesel-electric.....	7	30	39	2	...
18 Compressed air.....	63	1	24	...	...
19 Diesel.....	5	...	...	...	...
20 Gasoline and other.....	4	...	...	...	...
By rated horsepower:					
21 Less than 10.....	66	1	...	1	...
22 10-25 inclusive.....	8	21	49	1	...
23 26-100 inclusive.....	5	9	14	...	...
24 More than 100.....	...	...	...	...	...
25 Coal mobile loading machines ³.....	...	...	...	...	...
26 Coal hand-loaded face or room conveyors, duckbills, pit-car loaders, and self-loading conveyors, total.....	...	...	...	...	...
By kind of power used:					
27 Electric and Diesel-electric.....	...	...	...	...	...
28 Compressed air.....	...	...	...	...	...
29 Diesel, gasoline, and other.....	...	...	...	...	...
30 All other types of equipment, total ⁶	5	89	10	7	...
By kind of power used:					
31 Electric and Diesel-electric.....	3	88	...	6	...
32 Compressed air.....	...	1	10	...	...
33 Diesel.....	...	...	...	1	...
34 Gasoline and other.....	2	...	...	...	...

NA Not available.

¹See table 4, footnote 1.²See table 4, footnote 3.³Represents entirely Electric and Diesel-electric equipment, except for 8 compressed air units reported for 1954.

BY KIND OF POWER USED AND DETAILED TYPES, BY INDUSTRY, 1954, AND BY MAJOR INDUSTRY GROUP, 1954 AND 1939—Continued

Nonmetallic minerals (except fuels) mining—Continued								
Chemical and fertilizer mineral mining—Con.	Nonmetallic minerals (except fuels) contract services	Miscellaneous nonmetallic minerals (except fuels)						
		Gypsum	Mica	Native asphalt and bitumens	Pumice and pumicite	Talc, soapstone, and pyrophyllite	Peat	Vermiculite and Nonmetallic minerals, n.e.c.
41	3	7	6	7	...	58	...	18
16	2	7	...	5	...	4	...	1
24	...	...	3	...	...	53	...	10
...	...	...	...	...	...	...	...	1
1	1	...	3	2	...	1	...	6
11	...	...	...	...	...	10	...	3
...
11	...	...	...	...	...	10	...	3
...
...
...
...	...	...	...	...	...	2	...	...
...
...	...	...	...	...	...	2	...	...
...
...
...
23	2	4	...	5	...	43	...	6
15	2	4	...	5	...	4	...	...
8	...	...	...	...	...	39	...	6
...
...
2	2	...	...	5	...	10	...	6
14	...	4	...	...	...	16	...	...
3	...	...	...	...	...	17	...	...
4	...	...	...	...	...	...	...	...
...
...
...
...
...
7	1	3	6	2	...	3	...	9
1	...	3	...	...	...	...	...	1
5	...	...	3	...	...	2	...	1
...	...	...	...	...	...	...	...	1
1	1	...	3	2	...	1	...	6

⁴Separate figures are not available for this type of equipment.⁵Includes bulldozers, hydraulic giants, mucking machines, coal recovery augers, and unspecified types of equipment.⁶Includes continuous mining machines, miscellaneous types of loaders, and unspecified types of equipment.

**ENERGY, WATER, AND SELECTED
SUPPLIES**

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ENERGY USED IN THE MINERAL INDUSTRIES IN
THE UNITED STATES: 1929, 1939, AND 1954

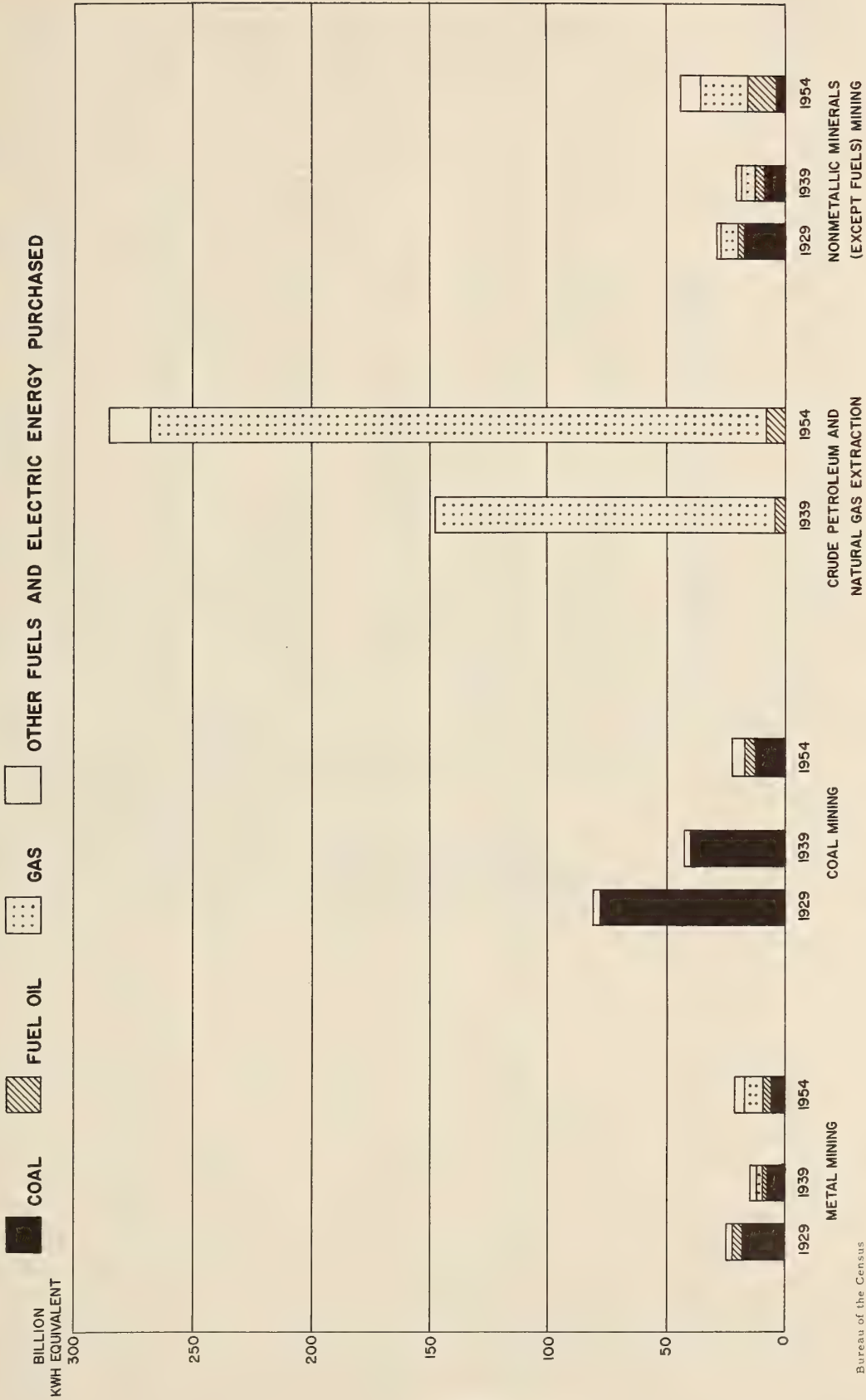


Table 1.--FUELS AND ELECTRIC ENERGY USED IN THE MINERAL INDUSTRIES IN THE UNITED STATES, BY MAJOR INDUSTRY GROUP: 1954, 1939, 1929, AND 1919

(For explanation of column captions, see INTRODUCTION)

Industry group and year	Energy used ¹ (million kwh equivalent)	Fuels used ²			Electric energy (million kwh)		
		Coal (1,000 short tons)	Fuel oils (1,000 barrels)	Gas (million cu. ft.)	Purchased	Generated by reporting companies	
						Used	Sold
All mineral industries: ³							
Including crude petroleum and natural gas extraction:.....							
1954..	372,524	2,801	16,222	931,641	13,150	3,602	891
1939..	224,898	7,186	6,115	489,052	6,329	2,070	125
1919 ⁴ .	(NA)	26,081	9,747	103,432	(NA)	(NA)	(NA)
Excluding crude petroleum and natural gas extraction:.....							
1954..	87,428	2,794	11,627	89,216	10,402	2,288	856
1939..	77,131	7,160	3,770	26,720	5,677	1,884	121
1929 ⁵ .	133,790	14,675	4,047	25,536	5,382	2,081	(NA)
Metal mining:.....							
1954..	21,087	741	2,014	24,889	3,184	1,527	502
1939..	14,628	967	1,109	8,784	2,306	616	33
1929..	24,727	2,274	2,392	1,408	1,965	1,007	(NA)
1919 ¹ .	(NA)	3,765	1,578	1,812	(NA)	(NA)	(NA)
Anthracite mining:.....							
1954..	7,198	6738	334	1	731	109	195
1939..	19,716	2,534	82	...	591	374	7
1929..	42,694	5,679	1	...	470	478	(NA)
1919 ² .	(NA)	9,578	1	...	(NA)	(NA)	(NA)
Bituminous coal and lignite mining:.....							
1954..	15,351	7838	2,120	507	3,628	132	146
1939..	22,587	2,577	167	103	1,958	616	75
1929..	37,766	4,524	17	303	2,044	465	(NA)
1919..	(NA)	11,127	3	866	(NA)	(NA)	(NA)
Crude petroleum and natural gas extraction:.....							
1954..	285,096	7	84,595	9842,425	2,748	1,314	35
1939..	147,767	26	2,345	462,332	652	186	4
1919 ³ .	(NA)	73	6,080	100,591	(NA)	(NA)	(NA)
Nonmetallic minerals (except fuels) mining ³ :.....							
1954..	43,792	477	7,159	63,819	2,859	520	13
1939..	20,200	1,082	2,412	17,833	822	278	6
1929 ⁵ .	28,603	2,198	1,637	23,825	903	131	(NA)
1919 ⁴ .	(NA)	1,538	2,084	163	(NA)	(NA)	(NA)

NA Not available.

¹Represents purchased electric energy and the kilowatt-hour equivalent of all fuels used for power or heat. For conversion factors used to convert to this international unit of energy, see report MI-A, INTRODUCTION, section 28.²Represents purchased fuels and fuels produced and used in the same establishment for power or heat.³For 1954 excludes, but for 1939 includes, data for dimension and crushed stone, clay, and gypsum mines operated as part of manufacturing establishments. For 1939 and earlier years, excludes data for contract service operations.⁴Excludes data for common clay, shale, sand, and gravel establishments.⁵Excludes data for common clay and shale establishment.⁶Includes 595 thousand tons of coal produced and used at the same establishment for power or heat.⁷Includes 761 thousand tons of coal produced and used at the same establishment for power or heat.⁸Includes 664 thousand barrels of crude petroleum produced and used as a fuel at the same establishment.⁹Includes 698 billion cubic feet of gas produced and used at the same establishment for power or heat.

MINERAL INDUSTRIES—SUMMARY STATISTICS

Table 2.—FUELS AND ELECTRIC ENERGY USED IN THE MINERAL INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954 AND 1939

(For 1954 excludes, but for 1939 includes, data for dimension and crushed stone, clay, and gypsum mines operated as part of manufacturing establishments)

Geographic division and State	Total energy used ¹ (million kwh equivalent)	Fuels used ²			Electric energy (million kwh)	
		Coal (1,000 short tons)	Fuel oils (1,000 barrels)	Natural gas (million cubic feet)	Purchased	Generated and used
United States, total.....	372,524	2,801	16,222	931,641	13,150	3,602
1939 ⁴	224,898	7,186	6,115	489,052	6,329	2,070
New England.....	541	2	134	3	74	3
1939.....	404	25	38	...	40	1
Maine.....	34	...	7	...	6	...
1939.....	16	1	2	...	2	...
New Hampshire.....	27	...	5	...	2	...
1939.....	18	1	1	...	1	...
Vermont.....	171	1	56	...	40	2
1939.....	93	7	8	...	19	1
Massachusetts.....	140	...	22	3	14	...
1939.....	157	6	22	...	12	...
Rhode Island.....	26	...	4	...	...	...
1939.....	25	2	...	...	1	...
Connecticut.....	143	1	40	...	12	1
1939.....	95	8	5	...	5	...
Middle Atlantic.....	19,300	1,437	1,733	7,022	2,324	185
1939.....	30,072	3,332	354	8,274	1,409	620
New York.....	3,256	230	268	1,481	342	1
1939.....	1,700	107	93	1,598	113	8
New Jersey.....	699	44	158	...	120	6
1939.....	652	61	47	...	43	11
Pennsylvania.....	15,345	1,163	1,307	5,541	1,862	178
1939.....	27,720	3,164	214	6,676	1,253	601
East North Central.....	16,318	551	1,814	16,521	1,575	293
1939.....	17,935	1,706	316	10,487	638	288
Ohio.....	2,677	37	680	1,068	321	14
1939.....	2,715	218	103	1,871	119	29
Indiana.....	1,369	45	156	725	198	14
1939.....	1,888	201	36	292	94	11
Illinois.....	7,909	199	515	12,871	671	66
1939.....	8,569	866	127	4,641	239	97
Michigan.....	3,668	264	263	1,849	301	187
1939.....	4,525	403	41	3,683	157	150
Wisconsin.....	695	6	200	8	84	12
1939.....	238	18	9	...	29	1
West North Central.....	18,755	172	1,987	34,390	1,395	201
1939.....	7,324	376	161	11,383	395	23
Minnesota.....	2,645	90	711	68	391	111
1939.....	1,715	200	26	...	94	...
Iowa.....	682	3	177	13	118	1
1939.....	201	20	11	18	27	4
Missouri.....	1,255	6	256	722	303	1
1939.....	786	54	36	177	162	5
North Dakota.....	890	7	113	1,249	14	3
1939.....	180	21	...	...	5	...
South Dakota.....	759	61	91	471	30	57
1939.....	557	60	2	240	11	...
Nebraska.....	692	(³)	103	1,080	13	1
1939.....	56	1	13	1	4	...
Kansas.....	11,832	5	536	30,787	526	27
1939.....	3,829	20	73	10,947	92	14
South Atlantic.....	12,962	349	2,310	9,432	2,291	86
1939.....	8,876	593	640	7,222	815	177
Delaware, Maryland, and the District of Columbia.....	485	17	105	98	16	...
1939.....	388	37	32	1	11	7
Virginia.....	1,389	90	184	2	196	6
1939.....	701	69	20	...	98	6
West Virginia.....	5,885	208	401	6,455	1,175	29
1939.....	5,662	416	19	6,028	558	127
North Carolina.....	504	20	121	13	77	1
1939.....	176	16	14	...	12	...
South Carolina.....	288	1	69	223	41	...
1939.....	133	11	4	...	13	...
Georgia.....	1,317	8	142	2,607	118	1
1939.....	770	32	61	1,193	28	4
Florida.....	3,094	5	1,288	34	668	49
1939.....	1,046	12	490	...	95	33
East South Central.....	9,853	110	715	18,455	1,041	43
1939.....	5,293	520	139	1,060	489	128
Kentucky.....	3,514	45	296	5,792	430	32
1939.....	2,322	230	17	1,014	177	32
Tennessee.....	1,116	23	199	679	175	4
1939.....	1,421	159	18	4	142	3
Alabama.....	1,253	40	115	452	409	...
1939.....	1,366	128	25	13	166	93
Mississippi.....	3,970	2	105	11,532	27	7
1939.....	184	3	79	29	4	...

See footnotes at end of table.

Table 2.--FUELS AND ELECTRIC ENERGY USED IN THE MINERAL INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954 AND 1939--Continued

(For 1954 excludes, but for 1939 includes, data for dimension and crushed stone, clay, and gypsum mines operated as part of manufacturing establishments)

Geographic division and State	Total energy used ¹ (million kwh equivalent)	Fuels used ²			Electric energy (million kwh)	
		Coal (1,000 short tons)	Fuel oils (1,000 barrels)	Natural gas (million cubic feet)	Purchased	Generated and used
West South Central.....1954..	217,257	10	2,034	648,951	1,384	1,199
.....1939..	106,779	44	1,426	333,196	408	260
Arkansas.....1954..	3,793	2	85	10,803	126	1
.....1939..	3,306	15	27	10,085	26	...
Louisiana.....1954..	43,447	2	1,223	129,929	125	192
.....1939..	16,448	2	863	48,519	30	22
Oklahoma.....1954..	31,302	5	419	92,605	379	139
.....1939..	23,132	24	134	72,981	177	86
Texas.....1954..	138,715	1	307	415,614	754	867
.....1939..	63,893	3	402	201,611	175	152
Mountain.....1954..	38,360	237	3,042	94,395	1,959	1,327
.....1939..	18,819	539	972	37,199	1,390	449
Montana.....1954..	2,504	13	140	5,158	346	3
.....1939..	1,210	9	35	2,408	340	5
Idaho.....1954..	527	13	94	...	192	8
.....1939..	233	8	27	...	116	9
Wyoming.....1954..	9,546	79	285	25,256	132	101
.....1939..	1,856	103	71	2,959	25	38
Colorado.....1954..	4,872	75	410	8,977	290	24
.....1939..	2,113	228	26	275	197	22
New Mexico.....1954..	12,384	10	1,421	37,021	193	163
.....1939..	9,234	83	174	26,829	21	119
Arizona.....1954..	3,747	1	230	9,184	325	597
.....1939..	2,372	5	559	3,879	139	249
Utah.....1954..	3,851	44	137	8,797	267	394
.....1939..	1,346	76	31	849	427	1
Nevada.....1954..	929	2	325	2	214	37
.....1939..	455	27	49	...	125	6
Pacific.....1954..	39,178	11	2,453	102,472	1,107	265
.....1939..	29,396	18	2,034	80,221	726	123
Washington.....1954..	404	9	61	...	79	19
.....1939..	251	17	29	5	42	8
Oregon.....1954..	349	1	103	56	24	1
.....1939..	143		66	...	11	4
California.....1954..	38,425	1	2,289	102,416	1,004	245
.....1939..	29,002	1	1,939	80,216	673	111

¹See table 1, footnote 1.²See table 1, footnote 2.³Less than one-half of the unit of measure specified.⁴United States total includes, but detail excludes, data for a few establishments for which statistics could not be included in the individual State figures.

Table 3.—PURCHASED FUELS AND ELECTRIC ENERGY USED IN THE MINERAL

(For explanation of column

Code No.	Industry group and industry	All purchased fuels and purchased electric energy		Coal purchased	
		Million kwh equivalent	Cost (\$1,000)	1,000 short tons	Cost (\$1,000)
	All mineral industries, total.....	146,432	365,307	1,436	10,311
	MAJOR INDUSTRY GROUPS				
10	Metal mining.....	21,087	59,598	741	6,052
11	Anthracite mining.....	2,775	12,719	143	590
12	Bituminous coal and lignite mining.....	9,509	64,913	77	418
13	Crude petroleum and natural gas extraction.....	69,269	131,827	7	52
14	Nonmetallic minerals (except fuels) mining.....	43,792	96,250	468	3,199
	INDUSTRIES				
10	Metal mining.....	21,087	59,598	741	6,052
1011	Iron ores.....	5,928	23,316	376	3,335
1021	Copper ores.....	9,255	14,854	179	1,450
103	Lead and zinc ores.....	1,641	8,247	50	413
1032	Lead ores.....	41	322	...	...
1033	Zinc ores.....	263	712	27	...
1034	Lead-zinc ores.....	1,337	7,213	23	1,450
104	Gold and silver ores.....	890	2,574	63	280
1042	Lode gold.....	639	1,289	62	269
1043	Placer gold.....	170	909	...	...
1044	Silver ores.....	81	376	1	11
1051	Bauxite.....	170	373	...	...
106	Ferro-alloy ores, except vanadium.....	1,128	4,530	3	28
1062	Manganese ores.....	477	1,198	1	8
1064	Tungsten ores.....	371	1,686	(1)	1
1063 } 1069 }	Molybdenum ores and Ferro-alloy ores, n.e.c.....	280	1,646	2	19
1081	Metal mining contract services.....	358	1,406	1	9
109	Miscellaneous metal ores.....	1,717	4,298	69	537
1092	Mercury ores.....	78	265	(1)	2
1094	Uranium-radium-vanadium ores.....	1,266	2,768	38	238
1093 } 1099 }	Titanium ores and Metallic ores, n.e.c.....	373	1,265	31	297
11	Anthracite mining.....	2,775	12,719	143	590
1111	Anthracite.....	2,166	10,435	141	574
1112	Anthracite stripping contract services.....	602	2,258	2	16
1113	Anthracite contract services, except stripping.....	7	26	...	...
12	Bituminous coal and lignite mining.....	9,509	64,913	77	418
1211	Bituminous coal.....	9,066	63,224	75	416
1212	Lignite.....	90	493	...	...
1213	Bituminous coal and lignite contract services.....	353	1,196	2	2
13	Crude petroleum and natural gas extraction.....	69,269	131,827	7	52
131	Crude petroleum and natural gas.....	39,403	71,955	2	18
1312 } 1313 }	Crude petroleum and Natural gas.....	34,354	66,801	2	18
1314	Natural gasoline.....	5,017	4,925	...	...
1315	Cycle condensate.....	32	229	...	...
133	Oil and gas field contract services.....	29,866	59,872	5	34
1331	Drilling oil and gas wells.....	23,191	37,024	4	27
1332	Building, repairing, and dismantling rigs and derricks.....	84	311	1	5
1339	Oil and gas field contract services, n.e.c.....	6,591	22,537	(1)	2
14	Nonmetallic minerals (except fuels) mining.....	43,792	96,250	468	3,199
141	Dimension stone.....	142	790	2	22
1412	Dimension limestone.....	34	141	1	6
1413	Dimension granite.....	35	325	(1)	13
1415	Dimension marble.....	8	93	(1)	1
1417	Dimension sandstone.....	52	183	1	1
1416 } 1419 }	Dimension trap rock and Dimension stone, n.e.c.....	13	48	(1)	1

See footnotes at end of table.

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captions, see INTRODUCTION)

Fuel oil purchased		Gas purchased		Cost of other purchased fuels	Electric energy					Code No.
1,000 barrels	Cost (\$1,000)	Million cubic feet	Cost (\$1,000)		Purchased		Generated			
					Million kwh	Cost (\$1,000)	Used (million kwh)	Sold		
								Million kwh	Value (\$1,000)	
15,558	66,461	233,895	33,569	95,347	13,150	159,619	3,602	891	8,652	
2,014	10,641	24,889	5,478	4,765	3,184	32,662	1,527	502	4,095	10
334	1,709	1	2	1,631	731	8,787	109	195	1,740	11
2,120	10,558	507	123	6,012	3,628	47,802	132	146	2,280	12
3,931	17,638	144,679	18,073	61,047	2,748	35,017	1,314	35	357	13
7,159	25,915	63,819	9,893	21,892	2,859	35,351	520	13	180	14
2,014	10,641	24,889	5,478	4,765	3,184	32,662	1,527	502	4,095	10
852	4,931	1,319	241	1,042	984	13,767	187	87	1,487	1011
301	1,691	20,559	4,535	900	815	6,278	1,194	413	2,582	1021
83	450	922	231	315	759	6,838	35	2	22	103
5		11	3		23	267	...			1032
7	450	...	...	315	46	438	5	2	22	1033
71		911	228		690	6,133	30			1034
81	377	68	35	230	185	1,652	73	(D)	(D)	104
24	126	68	35	139	63	720	62	...	...	1042
46	199	...	...	49	79	661	10	(D)	(D)	1043
11	52	...	...	42	43	271	1	...	...	1044
15	72	370	80	87	9	134	...	...	...	1051
230	1,081	683	144	758	307	2,519	23	(D)	(D)	106
76	334	633	131	248	79	477	2	(D)	(D)	1062
124	585	46	13	334	61	753	20	...	...	1064
30	162	4	(1)	176	167	1,289	1	...	...	1063
								...	...	1069
115	686	14	4	574	7	133	6	...	...	1081
337	1,353	954	208	859	118	1,341	9	...	...	109
38	182	9	3	17	5	61	1	...	...	1092
268	1,036	944	204	785	37	505	8	...	...	1094
31	135	1	1	57	76	775	...	...	...	1093
								...	...	1099
334	1,709	1	2	1,631	731	8,787	109	195	1,740	11
101	520	1	(1)	944	708	8,397	94	195	1,740	1111
229	1,165	(1)	2	685	23	390	15	...	...	1112
4	24	...	...	2	...	...	...	...	...	1113
2,120	10,558	507	123	6,012	3,628	47,802	132	146	2,280	12
1,956	9,639	507	123	5,534	3,601	47,512	132	146	2,280	1211
24	142	...	...	97	25	254	...	...	...	1212
140	777	...	...	381	2	36	...	...	...	1213
3,931	17,638	144,679	18,073	61,047	2,748	35,017	1,314	35	357	13
1,549	5,539	93,789	11,631	20,953	2,653	33,814	1,196	35	357	131
1,542	5,490	78,702	10,017	20,652	2,332	30,624	260	22	205	1312
7	49	15,070	1,612	268	302	2,996	759	13	152	1314
...	...	17	2	33	19	194	177	...	...	1315
2,382	12,099	50,890	6,442	40,094	95	1,203	118	...	...	133
2,108	10,705	47,339	6,029	19,943	18	320	113	...	...	1331
9	37	8	2	264	(1)	3	(1)	...	...	1332
265	1,357	3,543	411	19,887	77	880	5	...	...	1339
7,159	25,915	63,819	9,893	21,892	2,859	35,351	520	13	180	14
19	90	17	6	283	18	389	2	...	...	141
6	29	7	3	49	1	54	...	...	...	1412
5	30	9	2	51	12	229	...	...	...	1413
...	...	...	...	12	5	80	2	...	...	1415
5	23	...	...	137	(1)	22	...	...	...	1417
3	8	1	1	34	(1)	4	...	...	...	1416
										1414

Table 3.—PURCHASED FUELS AND ELECTRIC ENERGY USED IN THE MINERAL

(For explanation of column

Code No.	Industry group and industry	All purchased fuels and purchased electric energy		Coal purchased	
		Million kwh equivalent	Cost (\$1,000)	1,000 short tons	Cost (\$1,000)
14	Nonmetallic minerals (except fuels) mining—Continued				
	INDUSTRIES—Continued				
142	Crushed and broken stone.....	6,883	27,878	168	1,385
1422	Crushed and broken limestone.....	4,956	20,547	99	835
1423	Crushed and broken granite.....	282	1,585	1	11
1424	Crushed and broken slate.....	498	946	53	422
1425	Crushed and broken marble.....	54	203	4	34
1426	Crushed and broken trap rock.....	507	2,557	6	49
1427	Crushed and broken sandstone.....	393	1,432	5	32
1429	Crushed and broken stone, n.e.c.....	193	608	(1)	2
144	Sand and gravel.....	9,057	31,370	218	1,252
	Common sand and gravel.....	7,978	28,555	157	985
	Glass sand.....	746	1,647	55	253
	Foundry sand.....	333	1,168	6	14
145	Clay, ceramic, and refractory minerals.....	3,343	7,066	16	122
1452	Bentonite.....	369	773	...	...
1453	Fire clay.....	300	944	3	15
1454	Fuller's earth.....	296	756	...	...
1455	Kaolin and ball clay.....	1,134	2,381	6	53
1456	Feldspar.....	102	540	...	...
1457	Magnesite and brucite.....	16	71	...	...
1459	Clay, ceramic, and refractory minerals, n.e.c.....	1,126	1,601	7	54
146	Natural abrasives, except sand.....	89	268	2	8
1462	Abrasive stones, natural.....	3	10	}	8
1469	Natural abrasives, except sand, n.e.c.....	86	258	2	
147	Chemical and fertilizer mineral mining.....	23,077	24,939	49	311
1472	Barite.....	269	879	1	2
1473	Fluorspar.....	380	1,008	24	139
1474	Potash, soda, and borate minerals.....	5,812	7,235	1	9
1475	Phosphate rock.....	2,990	8,855	21	150
1476	Rock salt.....	549	702	1	2
1477	Sulfur.....	12,854	5,673	...	...
1479	Chemical and fertilizer mineral mining, n.e.c.....	223	587	1	9
1481	Nonmetallic minerals (except fuels) contract services.....	96	365	...	...
149	Miscellaneous nonmetallic minerals (except fuels).....	1,105	3,574	13	99
1492	Gypsum.....	85	311	}	28
1493	Mica.....	58	283	3	
1494	Native asphalt and bitumens.....	66	222	2	12
1495	Pumice and pumicite.....	56	159	...	...
1496	Talc, soapstone, and pyrophyllite.....	133	705	2	20
1498	Peat.....	87	205	6	39
1497	} Vermiculite and Miscellaneous nonmetallic minerals, n.e.c.....	620	1,689	...	...
1499					

D Withheld to avoid approximately disclosing figures for individual companies.

NA Not available.

¹Less than one-half of the unit of measure specified.

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captions, see INTRODUCTION)

[illegible]

Table 4.—FUELS AND ELECTRIC ENERGY USED IN THE MINERAL

	Geographic division and State	Total energy used (million kwh equivalent)	Fuels produced and used at same establishment			Purchased fuel (Total cost) (\$1,000)
			Coal (1,000 short tons)	Crude petroleum (1,000 barrels)	Natural gas (million cu. ft.)	
1	United States, total.....	372,524	1,365	664	697,746	205,688
2	New England.....	541	...	...	...	1,502
3	Maine.....	34	...	...	...	92
4	New Hampshire.....	27	...	...	...	96
5	Vermont.....	171	...	...	...	357
6	Massachusetts.....	140	...	...	...	469
7	Rhode Island.....	26	...	...	...	106
8	Connecticut.....	143	...	...	...	382
9	Middle Atlantic.....	19,300	799	1	4,009	19,782
10	New York.....	3,256	...	...	794	4,359
11	New Jersey.....	699	...	...	...	1,720
12	Pennsylvania.....	15,345	799	1	3,215	13,703
13	East North Central.....	16,318	152	36	14,016	21,614
14	Ohio.....	2,677	11	1	453	6,053
15	Indiana.....	1,369	35	3	364	2,261
16	Illinois.....	7,909	106	32	11,529	6,470
17	Michigan.....	3,668	...	...	1,670	4,947
18	Wisconsin.....	695	...	...	...	1,883
19	West North Central.....	18,755	10	71	10,521	24,587
20	Minnesota.....	2,645	...	...	...	6,520
21	Iowa.....	682	1	...	...	1,847
22	Missouri.....	1,255	...	...	13	2,260
23	North Dakota.....	890	7	49	815	1,320
24	South Dakota.....	759	...	...	...	1,124
25	Nebraska.....	692	...	1	624	1,319
26	Kansas.....	11,832	2	21	9,069	10,197
27	South Atlantic.....	12,962	199	2	5,089	14,900
28	Delaware, Maryland, and the District of Columbia.....	485	...	...	...	1,115
29	Virginia.....	1,389	24	...	1	1,861
30	West Virginia.....	5,885	175	2	5,054	4,457
31	North Carolina.....	504	...	...	...	1,062
32	South Carolina.....	288	...	...	...	608
33	Georgia.....	1,317	...	...	...	1,792
34	Florida.....	3,094	...	...	34	4,005
35	East South Central.....	9,853	54	1	14,672	8,961
36	Kentucky.....	3,514	31	1	5,358	3,459
37	Tennessee.....	1,116	1	...	...	2,192
38	Alabama.....	1,253	22	...	53	1,572
39	Mississippi.....	3,970	...	...	9,261	1,738
40	West South Central.....	217,257	1	234	497,334	71,650
41	Arkansas.....	3,793	1	10	6,592	1,643
42	Louisiana.....	43,447	...	17	97,321	13,860
43	Oklahoma.....	31,302	...	153	73,030	9,802
44	Texas.....	138,715	...	54	320,391	46,345
45	Mountain.....	38,360	142	50	55,920	26,327
46	Montana.....	2,504	4	...	1,919	2,270
47	Idaho.....	527	...	...	...	906
48	Wyoming.....	9,546	77	25	20,412	3,959
49	Colorado.....	4,872	44	10	7,727	4,302
50	New Mexico.....	12,384	1	15	25,410	4,500
51	Arizona.....	3,747	...	...	...	4,275
52	Utah.....	3,851	16	...	450	3,863
53	Nevada.....	929	...	...	2	2,252
54	Pacific.....	39,178	8	269	96,185	16,365
55	Washington.....	404	8	...	...	948
56	Oregon.....	349	...	...	...	948
57	California.....	38,425	...	269	96,185	14,469

¹Less than one-half of the unit of measure specified.

INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954

Purchased fuel—Continued									
Coal		Fuel oil		Gas		Cost of other fuels (\$1,000)	Purchased electric energy		Electric energy generated and used (million kwh)
Quantity (1,000 short tons)	Cost (\$1,000)	Quantity (1,000 barrels)	Cost (\$1,000)	Quantity (million cu. ft.)	Cost (\$1,000)		Quantity (million kwh)	Cost (\$1,000)	
1,436	10,311	15,558	66,461	233,895	33,569	95,347	13,150	159,619	3,602
2	28	134	566	3	1	907	74	1,250	3
(1)	1	7	29	...	...	62	6	41	...
...	...	5	32	...	...	64	2	59	...
1	20	56	236	...	...	101	40	513	2
(1)	1	22	118	3	(1)	350	14	320	...
(1)	5	4	28	...	...	73	(1)	34	...
1	1	40	123	(1)	1	257	12	283	1
638	3,545	1,732	8,263	3,013	1,282	6,692	2,324	29,770	185
230	1,707	268	1,325	687	320	1,007	342	3,767	1
44	372	158	641	...	...	707	120	1,595	6
364	1,466	1,306	6,297	2,326	962	4,978	1,862	24,408	178
399	3,160	1,773	8,538	2,505	539	9,377	1,575	23,746	293
26	196	679	3,238	615	257	2,362	321	4,633	14
10	62	153	776	361	50	1,373	198	3,139	14
93	536	483	2,275	1,342	201	3,458	671	9,962	66
264	2,313	263	1,335	179	25	1,274	301	4,581	187
6	53	195	914	8	6	910	84	1,431	12
162	1,356	1,916	9,248	23,869	4,304	9,679	1,395	15,664	201
90	1,024	711	4,193	68	98	1,205	391	6,506	111
2	20	177	853	13	2	972	118	515	1
6	28	256	1,037	709	211	984	303	3,319	1
(1)	2	64	307	434	39	972	14	281	3
61	258	91	234	471	148	484	30	395	57
(1)	1	102	492	456	143	683	13	218	1
3	23	515	2,132	21,718	3,663	4,379	526	4,430	27
150	1,052	2,308	8,243	4,343	1,168	4,437	2,291	27,168	86
17	158	105	446	98	34	477	16	378	...
66	371	184	742	1	(1)	748	196	2,951	6
33	219	399	2,139	1,401	333	1,766	1,175	14,996	29
20	166	121	621	13	9	266	77	922	1
1	12	69	297	223	78	221	41	460	...
8	65	142	624	2,607	714	389	118	1,274	1
5	61	1,288	3,374	...	...	570	668	6,187	49
56	362	714	3,509	3,783	781	4,309	1,041	12,384	43
14	88	295	1,437	434	96	1,838	430	6,475	32
22	153	199	978	679	193	868	175	1,400	4
18	107	115	570	399	91	804	409	4,119	...
2	14	105	524	2,271	401	799	27	390	7
9	56	2,834	11,884	151,617	17,237	42,473	1,384	21,019	1,199
1	1	75	442	4,211	457	743	126	1,346	1
2	8	1,206	4,911	32,608	3,982	4,959	125	1,745	192
5	38	265	1,247	19,575	1,828	6,689	379	4,801	139
1	9	1,288	5,284	95,223	10,970	30,082	754	13,127	867
95	721	1,694	8,328	38,475	7,075	10,203	1,959	17,119	1,327
9	68	140	741	3,239	543	918	346	2,231	3
13	116	94	493	...	...	297	192	1,380	8
2	19	260	1,196	4,844	572	2,172	132	1,534	101
31	203	400	1,694	1,250	217	2,188	290	3,124	24
9	69	108	567	11,611	1,823	2,041	193	1,816	163
1	18	230	1,282	9,184	2,200	775	325	2,638	597
28	215	137	704	8,347	1,720	1,224	267	2,391	394
2	13	325	1,651	(1)	(1)	588	214	2,005	37
3	31	2,453	7,882	6,287	1,182	7,270	1,107	11,499	265
1	8	61	331	...	...	609	79	680	19
1	15	103	423	56	12	498	24	290	1
1	8	2,289	7,128	6,231	1,170	6,163	1,004	10,529	245

Table 5.—WATER USE IN THE MINERAL INDUSTRIES IN
(For explanation of column

Code	Industry group and industry	Number of production and development workers	Value added in mining (\$1,000)	Water intake (except mine water)		
				Million gallons	Million gallons per production worker	Gallons per dollar value added
	All mineral industries, total.....	647,141	³ 11,546,418	571,654	0.88	50
	MAJOR INDUSTRY GROUPS					
10	Metal mining.....	81,896	⁴ 1,075,519	111,707	1.36	104
11	Anthracite mining.....	33,026	196,835	14,527	0.44	74
12	Bituminous coal and lignite mining.....	199,655	1,418,384	22,201	0.11	16
13	Crude petroleum and natural gas extraction.....	235,483	³ 7,673,694	158,487	0.67	21
14	Nonmetallic minerals (except fuels) mining.....	97,081	1,181,986	264,732	2.73	224
	INDUSTRIES					
10	Metal mining, total.....	81,896	⁴ 1,075,519	111,707	1.36	104
1011	Iron ores.....	28,216	435,668	20,890	0.74	48
1021	Copper ores.....	21,544	334,876	56,688	2.63	169
103	Lead and zinc ores:					
1032	Valued chiefly for lead.....	7,156	62,713	5,030	0.70	80
1033 (Part)	Valued chiefly for zinc.....	6,436	44,696	7,544	1.17	169
1033 (Part)						
1034						
104	Gold and silver ores:					
1042	Lode gold.....	2,634	21,884	3,784	1.44	173
1043	Placer gold.....	501	3,614	3,880	7.74	1,074
1044	Silver ores.....	1,065	9,856	2,173	2.04	220
1051	Bauxite.....	661	12,827	179	0.27	14
106	Ferro-alloy ores, except vanadium:					
1062	Manganese ores.....	2,266	18,118	2,766	1.22	153
1064	Tungsten ores.....	2,635	40,744	3,040	1.15	74
1063 1069 }	Molybdenum ores and Ferro-alloy ores (except vanadium), n.e.c...	1,937	48,537	1,232	0.64	25
1081	Metal mining contract services.....	2,863	26,703	98	0.03	4
109	Miscellaneous metal ores:					
1092	Mercury ores.....	372	3,355	10	0.03	3
1094	Uranium-radium-vanadium ores.....	2,944	(NA)	1,600	0.54	(NA)
1093 1099 }	Titanium ores and Metallic ores, n.e.c.....	666	11,928	2,793	4.19	234
11	Anthracite mining, total.....	33,026	196,835	14,527	0.44	74
1111	Anthracite.....	28,823	167,090	14,519	0.50	87
1112	Anthracite stripping contract services.....	4,074	29,079	8	(⁷)	(⁸)
1113	Anthracite contract services, except stripping.....	129	666	...	...	...
12	Bituminous coal and lignite mining, total.....	199,655	1,418,384	22,201	0.11	16
1211	Bituminous coal.....	197,819	1,396,774	22,146	0.11	16
1212	Lignite.....	505	9,093	16	0.03	2
1213	Bituminous coal and lignite mining contract services.....	1,331	12,517	39	0.03	3
13	Crude petroleum and natural gas extraction, total.....	235,483	³ 7,673,694	158,487	0.67	21
1312 1313 }	Crude petroleum and Natural gas.....	109,792	6,129,213	82,408	0.75	13
1314 1315 }	Natural gas liquids.....	13,560	(³)	67,262	4.96	(NA)
133	Oil and gas field contract services:					
1331	Drilling oil and gas wells.....	62,145	623,967	8,313	0.13	13
1332	Building, repairing, and dismantling rigs and derricks.....	1,539	9,552	21	0.01	2
1339	Oil and gas field contract services, n.e.c.....	48,447	485,025	483	0.01	1
14	Nonmetallic minerals (except fuels) mining, total.....	97,081	1,181,986	264,732	2.73	224
141	Dimension stone:					
1412	Dimension limestone.....	472	2,942	15	0.03	5
1413	Dimension granite.....	917	4,590	90	0.10	20
1415	Dimension marble.....	612	2,893	5	0.01	2
1417	Dimension sandstone.....	925	4,178	5	0.01	1
1416 1419 }	Dimension trap rock and Dimension stone, n.e.c.....	142	552

See footnotes at end of table.

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captions, see INTRODUCTION)

[illegible]

Table 5.—WATER USE IN THE MINERAL INDUSTRIES IN

(For explanation of column

Code	Industry group and industry	Number of production and development workers	Value added in mining (\$1,000)	Water intake (except mine water)		
				Million gallons	Million gallons per production worker	Gallons per dollar value added
	INDUSTRIES—Continued					
142	Crushed and broken stone:					
1422	Crushed and broken limestone.....	24,925	239,604	34,821	1.40	145
1423	Crushed and broken granite.....	2,344	22,201	2,224	0.95	100
1424	Crushed and broken slate.....	464	5,055	110	0.24	22
1425	Crushed and broken marble.....	379	3,661	11	0.03	3
1426	Crushed and broken trap rock.....	2,680	34,127	1,018	0.38	30
1427	Crushed and broken sandstone.....	1,529	22,913	1,143	0.75	50
1429	Crushed and broken stone, n.e.c.....	803	10,050	434	0.54	43
144	Sand and gravel:					
	Common sand and gravel.....	28,423	334,046	122,617	4.31	367
	Glass sand.....	1,144	13,701	5,128	4.48	374
	Foundry sand.....	966	8,982	967	1.00	108
145	Clay, ceramic, and refractory minerals:					
1452	Bentonite.....	578	16,350	12	0.02	1
1453	Fire clay.....	1,802	17,468	113	0.06	6
1454	Fuller's earth.....	510	4,179	51	0.10	12
1455	Kaolin and ball clay.....	2,820	25,249	3,788	1.34	150
1456	Feldspar.....	579	4,048	1,211	2.09	299
1457	Magnesite and brucite.....	121	1,372	...	...	...
1459	Clay, ceramic, and refractory minerals, n.e.c.....	1,053	9,783	246	0.23	25
146	Natural abrasives, except sand.....	251	3,681	103	0.41	28
147	Chemical and fertilizer mineral mining:					
1472	Barite.....	1,036	14,051	106,047	105.84	10430
1473	Fluorspar.....	997	9,914	825	0.83	83
1474	Potash, soda, and borate minerals.....	4,738	82,213	1010,561	102.23	10128
1475	Phosphate rock.....	4,579	62,089	39,720	8.67	640
1476	Rock salt.....	1,659	30,013	102,968	101.79	1099
1477	Sulfur.....	3,077	124,166	15,969	5.19	129
1479	Chemical and fertilizer mineral mining, n.e.c.....	1,209	18,074	1014,167	1011.72	10784
1481	Nonmetallic minerals (except fuels) contract services.....	614	4,884	25	0.04	5
149	Miscellaneous nonmetallic minerals (except fuels):					
1492	Gypsum.....	399	5,352	131	0.33	24
1493	Mica.....	668	3,284	937	(12)	285
1494	Native asphalt and bitumens.....	451	4,857	34	0.08	7
1495	Pumice and pumicite.....	223	2,741	(D)	(D)	(D)
1496	Talc, soapstone, and pyrophyllite.....	1,297	9,486	320	0.25	34
1498	Peat.....	321	1,800	...	...	...
1497 } 1499 }	Vermiculite and Nonmetallic minerals, n.e.c.....	1,374	17,437	(D)	(D)	(D)

D Withheld to avoid approximately disclosing figures of individual companies.

NA Not available.

¹Excludes water used for flooding in oil and gas fields.²For the Crude petroleum and Natural gas extraction industries represents a distribution of fresh water intake only. The total water intake for these industries includes 38,291 million gallons of brackish water.³Includes a partly estimated figure for value added in the Natural gas liquids industry.⁴Excludes figures for the Uranium-radium-vanadium ores industry.⁵Due to the nature of placer gold operations particularly the preponderant use of surface water systems such as creeks, other streams, and lakes in sluicing and washing, water discharge is approximately the same as water intake and drainage of mine water is negligible. The 1954 census report forms did not provide for information on water discharge or drainage for such operations, but in industry group and State totals a figure for water discharge equal to water intake has been included for placer gold operations.

THE UNITED STATES, BY INDUSTRY GROUP AND INDUSTRY: 1954—Continued
captions, see INTRODUCTION)

Water discharged (except mine water) ¹ (million gallons)	Mine water (million gallons)		Gross water use, including recirculation (million gallons)	Percent of total water intake (except mine water) by principal source ²				Code
	Used	Drained and discharged		Public water systems	Company surface water systems	Company ground water systems	Combinations and not specified	
33,913	18,789	36,901	57,639	3	53	21	23	1422
2,054	991	757	3,836	8	80	...	12	1423
99	9	36	140	1	51	...	48	1424
11	...	...	11	...	91	9	...	1425
987	83	582	1,288	5	43	38	14	1426
947	277	335	2,319	10	51	23	16	1427
434	9	...	672	1	77	2	20	1429
118,206	56,418	249	247,721	3	54	24	19	
5,080	700	...	10,990	5	75	18	2	
892	746	11	2,064	9	24	13	54	
2	...	...	12	8	...	92	...	1452
101	44	1,665	597	41	11	48	(6)	1453
51	...	...	51	43	...	57	...	1454
3,732	102	213	4,481	...	35	65	...	1455
1,139	13	21	1,224	12	88	...	...	1456
...	1,152	1,152	2,201	...	...	...	...	1457
238	21	21	736	16	59	21	4	1459
101	100	105	465	...	87	3	10	146
5,720	(10)	192	9,348	(6)	64	9	27	1472
785	266	5,001	1,244	22	48	18	12	1473
6,455	(10)	7	26,332	...	23	74	3	1474
1140,891	22,898	...	138,399	...	21	69	10	1475
2,689	(10)	88	3,086	(6)	2	75	23	1476
15,414	...	...	16,735	22	20	30	28	1477
12,024	(10)	533	51,370	(6)	(6)	39	61	1479
25	...	...	25	100	...	...	...	1481
130	...	(D)	131	4	8	88	...	1492
897	85	345	1,840	...	63	16	21	1493
34	4	24	154	...	35	...	65	1494
7	(D)	...	27	...	86	14	...	1495
289	4	132	403	...	88	12	...	1496
...	...	177	...	...	...	...	...	1498
396	(D)	(D)	1,176	7	67	23	3	1497 1499

⁶Less than 0.5 percent.

⁷Less than 50,000 gallons.

⁸Less than 0.5 gallon.

⁹For industries other than Natural gas liquids, includes water intake only.

¹⁰Mine water used is included with figure for water intake (except mine water).

¹¹Exceeds water intake, in part, due to accumulation of rain water in storage facilities.

¹²Not shown since the number of proprietors and firm members performing manual labor exceeds one-third of the number of production and development workers.

MINERAL INDUSTRIES—SUMMARY STATISTICS

Table 6.—WATER USE IN THE MINERAL INDUSTRIES, BY GEOGRAPHIC DIVISION AND STATE: 1954

(For explanation of column captions, see INTRODUCTION)

Geographic division and State	Number of production and development workers	Value added in mining (\$1,000)	Water intake (except mine water)			Water discharged (except mine water) ¹ (million gallons)	Mine water (million gallons)		Gross water use, including recirculation (million gallons)	Percent of total water intake (except mine water) ² by principal source			
			Million gallons	Million gallons per production worker	Gallons per dollar value added		Used	Drained and discharged		Public water systems	Company surface water systems	Company ground water systems	Combinations and not specified
United States, total.....	647,141	21,546,418	571,654	0.88	50	549,740	150,328	388,791	2,170,499	6	41	35	18
New England.....	3,456	32,104	6,268	1.81	195	6,196	1,952	189	10,867	1	82	8	9
Maine.....	292	1,809	99	0.34	55	99	...	...	139	...	91	7	2
New Hampshire.....	240	1,658	375	1.56	226	372	...	...	378	...	32	...	68
Vermont.....	1,187	10,600	397	0.33	37	383	70	110	469	2	60	7	31
Massachusetts.....	992	8,925	3,522	3.55	395	3,483	66	...	3,834	7	59	10	24
Rhode Island.....	140	1,109	264	1.89	238	254	2	...	269	8	92	...	...
Connecticut.....	605	8,003	1,611	2.66	201	1,605	1,814	79	5,778	...	59	29	12
Middle Atlantic.....	105,017	767,158	63,872	0.61	83	52,040	30,553	174,370	188,536	10	40	23	27
New York.....	17,641	96,838	14,005	1.83	145	12,350	2,925	2,218	25,426	6	64	16	14
New Jersey.....	3,479	38,617	4,509	1.30	117	4,101	3,051	10,798	9,145	1	39	42	18
Pennsylvania.....	93,897	631,703	45,358	0.48	72	35,589	24,577	161,354	153,965	12	33	23	32
East North Central.....	69,142	813,435	76,152	1.10	94	66,261	40,022	35,617	197,923	3	70	20	7
Ohio.....	17,508	166,825	10,109	0.58	61	8,850	21,150	2,639	52,781	15	39	32	14
Indiana.....	7,782	85,201	8,736	1.12	103	7,905	5,396	4,365	16,206	(4)	52	37	11
Illinois.....	26,627	375,191	20,496	0.77	55	15,938	7,309	12,595	65,132	2	71	20	7
Michigan.....	13,729	149,074	32,985	2.40	221	30,679	4,880	11,987	56,746	2	87	7	4
Wisconsin.....	3,496	37,144	3,826	1.09	103	2,889	1,287	4,031	7,058	3	32	55	10
West North Central.....	43,170	785,763	41,925	0.97	53	40,221	12,602	41,098	112,110	8	55	21	16
Minnesota.....	13,849	290,205	10,202	0.74	35	7,835	4,920	34,353	31,695	26	46	27	1
Iowa.....	2,347	21,513	4,285	1.83	199	4,262	401	608	6,494	...	88	3	9
Missouri.....	6,697	356,554	7,087	1.06	125	6,644	5,009	4,839	25,261	(4)	58	14	28
North Dakota.....	1,399	37,151	883	0.63	123	585	344	...	1,296	...	47	21	32
South Dakota.....	2,497	222,419	2,845	1.14	127	2,277	720	632	6,399	1	89	4	6
Nebraska.....	1,433	29,222	2,765	1.93	95	2,733	124	...	4,591	1	72	6	21
Kansas.....	14,948	358,699	13,858	0.93	39	15,886	1,084	666	36,374	5	39	33	23
South Atlantic.....	98,602	761,393	86,400	0.88	113	79,717	33,760	54,465	288,232	3	46	40	11
Delaware, Maryland and the District of Columbia.....	1,804	17,941	3,977	2.20	222	3,931	109	201	4,595	33	16	32	19
Virginia.....	14,400	89,095	5,304	0.37	60	3,864	2,273	2,794	13,607	1	80	6	13
West Virginia.....	68,340	351,492	18,215	0.27	35	15,034	1,667	47,444	86,529	1	85	7	7
North Carolina.....	3,322	30,678	7,305	2.20	238	6,195	1,276	943	11,390	17	62	2	19
South Carolina.....	1,276	10,097	2,748	2.15	272	2,705	490	247	3,661	7	93	(4)	...
Georgia.....	3,928	32,724	5,861	1.49	179	5,696	551	580	7,817	(4)	42	43	15
Florida.....	5,532	367,366	42,990	7.77	638	42,292	27,394	2,256	160,633	(4)	23	67	10
East South Central.....	60,615	521,131	30,848	0.51	59	27,203	9,144	35,427	87,815	3	64	19	14
Kentucky.....	35,820	272,103	8,264	0.23	30	6,611	1,292	19,053	39,711	1	65	8	26
Tennessee.....	8,839	61,108	15,371	1.74	252	13,923	1,517	3,547	20,125	1	60	28	11
Alabama.....	12,880	393,638	5,685	0.44	61	4,402	2,281	12,827	18,683	10	78	10	2
Mississippi.....	3,076	94,282	1,528	0.50	16	2,267	4,054	...	9,296	6	39	32	23
West South Central.....	165,208	5,209,798	143,829	0.87	28	160,432	4,091	2,764	911,389	5	30	54	13
Arkansas.....	4,985	3107,904	3,816	0.77	35	3,552	513	868	27,329	...	34	50	16
Louisiana.....	29,474	984,473	42,345	1.44	43	61,686	2,017	...	95,122	...	53	37	10
Oklahoma.....	30,294	358,437	17,866	0.59	31	11,117	686	497	171,918	4	27	46	23
Texas.....	100,455	3,533,064	79,802	0.79	23	84,077	875	167	617,020	7	13	67	13
Mountain.....	68,713	1,305,463	84,229	1.23	65	70,020	7,601	39,187	203,105	8	21	29	42
Montana.....	8,899	382,867	7,739	0.87	93	6,180	253	4,087	8,449	16	6	2	76
Idaho.....	4,121	338,558	5,584	1.36	145	5,312	1,230	4,501	7,019	...	85	12	3
Wyoming.....	7,460	3258,165	14,599	1.96	57	14,283	6	324	43,503	...	16	40	44
Colorado.....	10,840	3204,547	7,580	0.70	37	5,394	1,106	4,246	18,699	5	76	12	7
New Mexico.....	11,545	3338,096	7,867	0.68	23	2,844	1,690	477	60,077	4	28	62	6
Arizona.....	11,014	3178,139	13,715	1.25	77	10,648	999	4,422	23,458	27	3	47	23
Utah.....	10,249	3151,662	20,520	2.00	135	20,333	941	15,069	30,209	(4)	7	4	89
Nevada.....	4,585	353,429	6,625	1.44	124	5,026	1,376	6,124	11,691	13	2	73	12
Pacific.....	33,218	1,350,173	38,131	1.15	28	47,650	10,603	5,674	170,524	10	29	48	13
Washington.....	2,515	322,346	3,869	1.54	173	3,835	1,172	1,340	6,457	4	45	39	12
Oregon.....	1,280	12,646	1,830	1.43	145	1,823	649	80	2,536	25	32	14	29
California.....	29,423	31,315,181	32,432	1.10	25	41,992	8,782	4,254	161,531	10	27	51	12

¹Excludes water used for flooding in oil and gas fields.²See table 5, footnote 2.³Excludes figures for the Uranium-radium-vanadium ores industry.⁴Less than 0.5 percent.

Table 7.—SUPPLIES USED IN THE MINERAL INDUSTRIES IN THE UNITED STATES, BY INDUSTRY GROUP AND FOR SELECTED INDUSTRIES: 1954

Industry group and industry	Purchased supplies used ¹					
	Total delivered cost (\$1,000)	Explosives		Steel mill shapes and forms ²		All other supplies (delivered cost) ³ (\$1,000)
		Quantity (1,000 pounds)	Delivered cost (\$1,000)	Quantity (1,000 short tons)	Delivered cost (\$1,000)	
All mineral industries, total.....	1,866,196	4309,473	450,663	4502	455,572	4381,632
Metal mining, total.....	229,787	4125,570	421,177	4144	423,012	4165,594
Iron ores.....	75,866	45,300	7,895	36	5,320	62,651
Copper ores.....	72,822	45,774	6,597	74	11,591	54,634
Lead and zinc ores:						
Valued chiefly for lead.....	12,790	8,940	1,603	10	1,941	9,246
Valued chiefly for zinc.....	11,883	7,705	1,545	6	1,041	9,297
Gold and silver ores:						
Lode gold.....	5,017	3,286	594	3	546	3,877
Placer gold.....	1,554	25	5	1	221	1,328
Silver ores.....	2,167	1,196	236	1	202	1,729
Bauxite.....	789	749	148	(⁵)	5	636
Ferro-alloy ores, except vanadium:						
Manganese ores.....	5,087	1,208	281	1	172	4,634
Tungsten ores.....	8,295	4,038	765	2	475	67,055
Molybdenum ores and Ferro-alloy ores, except vanadium, n.e.c....	9,853	6,025	1,157	6	855	7,841
Metal mining contract services.....	10,286	(NA)	(NA)	(NA)	(NA)	(NA)
Miscellaneous metal ores:						
Mercury ores.....	71,160	310	64	(⁵)	24	71,072
Uranium-radium-vanadium ores.....	9,844	(NA)	(NA)	(NA)	(NA)	(NA)
Titanium ores and Metallic ores, n.e.c.....	73,456	1,014	287	4	619	72,550
Anthracite mining, total.....	29,027	416,987	42,815	415	41,967	415,442
Anthracite.....	20,224	16,987	2,815	15	1,967	815,442
Anthracite stripping contract services.....	8,651	(NA)	(NA)	(NA)	(NA)	(NA)
Anthracite contract services, except stripping.....	152					
Bituminous coal and lignite mining, total.....	260,851	4166,916	426,671	4343	430,593	4200,596
Bituminous coal.....	257,233	166,656	26,632	343	30,575	9200,026
Lignite.....	627	260	39	(⁵)	18	10570
Bituminous coal and lignite mining contract services.....	2,991					
Crude petroleum and natural gas extraction.....	111,131,349	(NA)	(NA)	(NA)	(NA)	(NA)
Nonmetallic minerals (except fuels) mining.....	215,182					

NA Not available.

¹Except as indicated in footnote 6, excludes the cost of products purchased for resale without further processing. (This cost is included with supplies in many of the 1954 minerals census tables.) For 1954, the total reported cost of products purchased for such resale was about \$114,380 thousand, of which \$62,065 thousand was reported by the Bituminous coal industry and \$37,000 thousand by the Oil and gas field contract services industries.

²Includes such items as rails, wheels, track accessories, plates, pipe, tubing, piling, drill steel bars, other bars, roof bolts, sheets, strip, wire, wire products, and structural shapes.

³Includes such items as drill bits, cement, lumber, parts for renewals and repairs, lubricants, and water purchased.

⁴Represents only the sum of detailed figures for the metal mining and coal mining industries for which separate figures on use of explosives and steel mill shapes and forms were obtained.

⁵Less than 500 tons.

⁶Includes the cost of products purchased for resale without further processing, amounting to less than one percent of the total cost of supplies.

⁷Includes the cost of ores received for milling. The value of such ores, however, is not included in the metal mining total.

⁸Includes \$1,741 thousand for "Round and hewn woods products and stumpage."

⁹Includes \$25,756 thousand for "Round and hewn woods products and stumpage." Establishments in the Bituminous coal industry also produced 4,212 M board feet of rough lumber for use at the same establishment.

¹⁰Includes \$3 thousand for "Round and hewn woods products and stumpage."

¹¹Includes 123 billion cubic feet of natural gas, valued at \$10,279 thousand, purchased for gas lift and repressuring.

TYPE OF OPERATION

G-1

Type of Operation

TYPE OF OPERATION.--All minerals censuses since 1880 have yielded some statistics classified by type of mining operations as well as by industry and by State. The 1954 minerals census tabulations provide detailed statistics for establishments classified by mining methods; preparation methods; and for oil and gas field operations, by incidence of oil and gas well operations, drilling activity, and contract work. Similar tabulations were made for 1939, and some detailed statistics of this type are available for earlier census years.

The 1954 industry reports contain, as Table 4, these detailed type of operation statistics, and some type of operation detail is also included in Tables 7, 10, and 13 of the industry reports, and sometimes in Table 8. These tables are adapted to the mining and mineral preparation methods generally used in each industry, and are usually presented in as much detail as is consistent with census publication standards. Wherever feasible, these tables provide separate figures for mines with and without preparation plants, for separately operated preparation plants, for open-pit and underground mines, and for producing as distinct from nonproducing operations. These tabulations also segregate figures for establishments using specific mining methods, such as open stoping, shrinkage stoping, square-setting, and block caving, and also those using such preparation methods as washing, crushing, flotation, and gravity. For the bituminous coal, crude petroleum, and natural gas industries some type of operation statistics are provided by State.

Table 1 of this report brings together for the first time in one place figures for type of operation classes which are common to all mining operations in the metal mining, coal mining, and nonmetallic minerals (except fuels) mining industries. However, only figures for number of establishments, employment, and value added in mining are shown in this table and it is not always possible to publish the latter two figures without approximately disclosing operations of individual companies. Since entirely different type of operation classifications are used for the Crude petroleum and natural gas extraction industries such statistics are shown only in the industry reports for these industries.

Table 1 indicates that about 41 percent of all mines (excluding oil and gas field establishments) were operated by underground mining methods in 1954 and that 40 percent of all mining establishments had mineral preparation facilities.

NONPRODUCING ESTABLISHMENTS.--If an establishment was engaged only in exploration work or development of mineral properties and shipped no products during the year, it was tabulated as a "nonproducing operation." Such establishments represented about 4 percent of all establishments covered

in the 1954 minerals census. They accounted for about 4 percent of total new capital expenditures, but only 1 percent of the total number of persons engaged, since much of the work at such establishments is performed on a contract basis.

Data for nonproducing establishments are included throughout the industry and State reports of the 1954 minerals census. Detailed statistics for them are shown, where possible, in Table 4 of the industry reports. In tabulations for previous census years, the industry statistics have frequently excluded figures for nonproducing establishments, and they have usually been segregated in the State statistics. Table 2 of this report shows general statistics for such establishments classified by industry, and their incidence by industry and State is shown in Table 3.

MINING OPERATIONS CLASSIFIED IN MANUFACTURES AND WHOLESALE TRADE.--In the 1954 census, separate reports were not requested for mines and quarries operated as parts of cement, lime, clay products, and gypsum products plants. Such establishments were classified in the manufacturing industries. However, separate information was obtained on man-hours, principal expenses, and products for such mines and quarries.

Dimension stone quarries operated with an associated dressing plant were also classified in the manufactures census for 1954. For such quarries with dressing plants complete minerals census type reports were obtained.

Some stone and sand and gravel mining was conducted as part of wholesale trade operations, particularly as part of ready-mixed concrete establishments. Some mining information was obtained for many such establishments, although, coverage of mining data for wholesale trade establishments was probably incomplete.

The value of products of all mines and quarries included in the censuses of manufactures and wholesale trade amounted to about 14 percent of the total value of nonmetallic minerals (except fuels) mine products in 1954. Figures for such establishments are in general included but shown separately throughout the 1954 minerals census industry and State reports. For 1939, separate reports were requested for all such mining operations and they were all classified in the mineral industries. Tables including data for such operations in the 1954 census tabulations usually have a title specifying that they represent "mineral operations" rather than "mineral industries." Table 4 of this report summarizes, by industry, available data for all mines operated in 1954 as part of establishments included in the 1954 censuses of manufactures and wholesale trade.

MINERAL INDUSTRIES—SUMMARY STATISTICS

Table 1.—NUMBER OF ESTABLISHMENTS, EMPLOYMENT, AND VALUE ADDED IN THE METAL MINING, COAL MINING, AND NONMETALLIC MINERALS (EXCEPT FUELS)
(Excludes data for contract service establishments.)

	Major industry group, industry, and item	All types of establishments	Producing establishments			
			Total	Mines only		
				Total	Underground mines	Open-pit mines
	All mines and mineral preparation plants classified in the mineral industries:					
1	Number of establishments, total.....	19,388	18,463	10,459	6,828	3,313
2	Metal mining.....	3,382	2,598	1,686	1,072	518
3	Anthracite mining.....	1,291	1,282	1,062	956	92
4	Bituminous coal and lignite mining.....	6,703	6,652	5,948	4,646	1,259
5	Nonmetallic minerals (except fuels) mining.....	8,012	7,931	1,763	154	1,444
	METAL MINING					
	Iron ores:					
6	Number of establishments.....	225	209	102	44	57
7	Number of employees.....	134,170	31,798	13,398	11,399	(D)
8	Value added in mining.....\$1,000..	435,668	437,769	142,287	87,405	(D)
	Copper ores:					
9	Number of establishments.....	210	159	123	96	24
10	Number of employees.....	127,813	25,293	6,900	(D)	2,788
11	Value added in mining.....\$1,000..	334,876	334,001	84,002	(D)	64,683
	Lead and zinc ores:					
12	Number of establishments.....	520	385	277	244	29
13	Number of employees.....	116,566	15,493	4,366	4,355	(D)
14	Value added in mining.....\$1,000..	107,409	107,293	31,055	30,815	(D)
	Lode gold:					
15	Number of establishments.....	298	184	88	70	16
16	Number of employees.....	3,020	2,823	271	260	(D)
17	Value added in mining.....\$1,000..	21,884	21,699	1,996	1,898	(D)
	Placer gold:					
18	Number of establishments.....	136	103	13	...	...
19	Number of employees.....	556	514	(D)	...	...
20	Value added in mining.....\$1,000..	3,614	3,517	(D)	...	...
	Silver ores:					
21	Number of establishments.....	101	64	49	43	5
22	Number of employees.....	11,255	1,094	91	(D)	(D)
23	Value added in mining.....\$1,000..	9,856	9,724	607	(D)	(D)
	Bauxite:					
24	Number of establishments.....	25	25	16	2	12
25	Number of employees.....	852	852	698	(D)	(D)
26	Value added in mining.....\$1,000..	12,827	12,827	11,262	(D)	(D)
	Manganese ores:					
27	Number of establishments.....	367	353	301	160	124
28	Number of employees.....	12,604	2,536	1,076	913	101
29	Value added in mining.....\$1,000..	18,118	18,020	7,609	5,660	1,212
	Molybdenum ores and Ferro-alloy ores, except vanadium, n.e.c.:					
30	Number of establishments.....	170	159	106	16	80
31	Number of employees.....	12,487	2,294	113	53	54
32	Value added in mining.....\$1,000..	48,537	48,391	1,295	299	903
	Tungsten ores:					
33	Number of establishments.....	549	510	253	143	90
34	Number of employees.....	2,987	2,942	429	286	30
35	Value added in mining.....\$1,000..	40,744	40,694	4,138	2,694	357
	Mercury ores:					
36	Number of establishments.....	87	69	3	1	2
37	Number of employees.....	1,453	416	(D)	(D)	(D)
38	Value added in mining.....\$1,000..	3,355	3,390	(D)	(D)	(D)
	Uranium-radium-vanadium ores:					
39	Number of establishments.....	637	330	322	252	50
40	Number of employees.....	3,467	2,928	(D)	1,295	172
	Titanium ores and Metallic ores, n.e.c.:					
41	Number of establishments.....	57	48	33	1	29
42	Number of employees.....	961	797	(D)	(D)	(D)
43	Value added in mining.....\$1,000..	11,928	9,673	(D)	(D)	(D)
	ANTHRACITE MINING					
	Anthracite:					
44	Number of establishments.....	1,291	1,282	1,062	956	92
45	Number of employees.....	32,769	32,716	13,915	11,915	5320
46	Value added in mining.....\$1,000..	167,090	167,380	76,348	56,206	512,319

See footnotes at end of table.

TYPE OF OPERATION

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MINING INDUSTRIES IN THE UNITED STATES, BY TYPE OF OPERATION AND BY MAJOR INDUSTRY GROUPS AND INDUSTRIES: 1954

For explanation of line captions, see INTRODUCTION)

Producing establishments—Continued									Nonproducing establishments
Mines only—Continued		Mines with preparation plants					Separately operated preparation plants		
Combination underground and open-pit mines	Other mines	Total	Underground mines	Open-pit mines	Combination underground and open-pit mines	Other mines			
162	156	7,581	1,013	5,383	150	1,035	423	925	1
80	16	803	313	338	56	96	109	784	2
14	...	133	18	70	19	26	87	9	3
43	...	570	439	101	30	...	134	51	4
25	140	6,075	243	4,874	45	913	93	81	5
1	...	103	11	89	3	...	4	16	6
(D)	...	17,889	3,689	(D)	(D)	...	511	435	7
(D)	...	291,735	30,998	(D)	(D)	...	3,747	(²)	8
3	...	27	16	8	3	...	9	51	9
(D)	...	15,342	(D)	7,352	(D)	...	3,051	793	10
(D)	...	208,791	(D)	129,252	(D)	...	41,208	875	11
4	...	82	74	6	2	...	26	135	12
(D)	...	10,447	10,116	(D)	(D)	...	680	352	13
(D)	...	71,487	69,045	(D)	(D)	...	4,751	116	14
2	...	85	70	13	2	...	11	114	15
(D)	...	2,482	2,379	(D)	(D)	...	70	197	16
(D)	...	19,299	18,469	(D)	(D)	...	404	185	17
...	³ 13	90	...	...	...	³ 90	...	33	18
...	(D)	(D)	...	...	...	(D)	...	42	19
...	(D)	(D)	...	...	...	(D)	...	97	20
1	...	15	13	1	1	...	...	37	21
(D)	...	1,003	(D)	(D)	(D)	...	...	83	22
(D)	...	9,117	(D)	(D)	(D)	...	...	132	23
2	...	4	...	4	...	...	5	...	24
(D)	...	68	...	68	...	...	86	...	25
(D)	...	531	...	531	...	...	1,034	...	26
17	...	44	8	31	5	...	8	14	27
62	...	1,131	179	789	163	...	329	50	28
737	...	9,181	1,542	6,819	820	...	1,230	98	29
10	...	43	9	29	5	...	10	11	30
6	...	2,173	2,064	96	13	...	8	43	31
93	...	46,994	45,929	888	177	...	102	146	32
20	...	232	82	122	28	...	25	39	33
113	...	2,381	1,158	82	1,141	...	132	45	34
1,087	...	35,371	18,696	852	15,823	...	1,185	50	35
...	...	66	30	28	4	³ 4	...	18	36
...	...	(D)	(D)	(D)	(D)	(D)	...	27	37
...	...	(D)	(D)	(D)	(D)	(D)	...	(²)	38
20	...	1	...	...	1	...	7	307	39
(D)	...	(D)	...	...	(D)	...	1,001	539	40
...	⁴ 3	11	...	7	2	⁴ 2	4	9	41
...	(D)	(D)	...	(D)	(D)	(D)	52	164	42
...	(D)	(D)	...	(D)	(D)	(D)	434	2,255	43
14	...	133	18	⁶ 70	⁷ 19	⁴ 26	87	9	44
1,680	...	16,986	4,522	⁶ 2,671	⁷ 9,605	⁴ 188	1,815	53	45
7,823	...	83,941	18,680	⁶ 18,252	⁷ 45,529	⁴ 1,480	7,091	(²)	46

MINERAL INDUSTRIES—SUMMARY STATISTICS

Table 1.—NUMBER OF ESTABLISHMENTS, EMPLOYMENT, AND VALUE ADDED IN THE METAL MINING, COAL MINING, AND NONMETALLIC MINERALS (EXCEPT FUELS)
(Excludes data for contract service establishments.)

Major industry group, industry, and item		All types of establishments	Producing establishments			
			Total	Mines only		
				Total	Underground mines	Open-pit mines
BITUMINOUS COAL AND LIGNITE MINING						
Bituminous coal:						
1	Number of establishments.....	6,643	6,592	5,888	4,632	⁸ 1,213
2	Number of employees.....	216,813	216,611	100,527	84,686	⁸ 14,152
3	Value added in mining.....\$1,000..	1,396,774	1,397,051	599,814	450,438	⁸ 141,305
Lignite:						
4	Number of establishments.....	60	60	60	14	46
5	Number of employees.....	574	574	574	27	547
6	Value added in mining.....\$1,000..	9,093	9,093	9,093	138	8,955
NONMETALLIC MINERALS (EXCEPT FUELS) MINING						
Dimension limestone:						
7	Number of establishments.....	65	65	65	3	62
8	Number of employees.....	500	500	500	(D)	(D)
9	Value added in mining.....\$1,000..	2,942	2,942	2,942	(D)	(D)
Dimension granite:						
10	Number of establishments.....	86	86	86	...	86
11	Number of employees.....	967	967	967	...	967
12	Value added in mining.....\$1,000..	4,590	4,590	4,590	...	4,590
Dimension marble:						
13	Number of establishments.....	30	30	30	6	24
14	Number of employees.....	637	637	637	(D)	(D)
15	Value added in mining.....\$1,000..	2,893	2,893	2,893	(D)	(D)
Dimension sandstone:						
16	Number of establishments.....	115	115	115	...	115
17	Number of employees.....	973	973	973	...	973
18	Value added in mining.....\$1,000..	4,178	4,178	4,178	...	4,178
Dimension trap rock and Dimension stone, n.e.c.:						
19	Number of establishments.....	55	55	55	...	55
20	Number of employees.....	147	147	147	...	147
21	Value added in mining.....\$1,000..	552	552	552	...	552
Crushed and broken limestone:						
22	Number of establishments.....	1,447	1,441	85	...	85
23	Number of employees.....	128,240	28,111	401	...	401
24	Value added in mining.....\$1,000..	239,604	239,564	3,261	...	3,261
Crushed and broken granite:						
25	Number of establishments.....	101	100	13	...	12
26	Number of employees.....	2,550	(D)	86	...	(D)
27	Value added in mining.....\$1,000..	22,201	(D)	674	...	(D)
Crushed and broken slate:						
28	Number of establishments.....	11	11	...	...	...
29	Number of employees.....	533	533	...	...	...
30	Value added in mining.....\$1,000..	5,055	5,055	...	...	...
Crushed and broken marble:						
31	Number of establishments.....	18	17	2	...	2
32	Number of employees.....	431	(D)	(D)	...	(D)
33	Value added in mining.....\$1,000..	3,661	(D)	(D)	...	(D)
Crushed and broken trap rock:						
34	Number of establishments.....	142	140	11	...	11
35	Number of employees.....	13,057	(D)	117	...	17
36	Value added in mining.....\$1,000..	34,127	(D)	1156	...	156
Crushed and broken sandstone:						
37	Number of establishments.....	87	85	13	...	13
38	Number of employees.....	1,711	(D)	1169	...	69
39	Value added in mining.....\$1,000..	22,913	(D)	11332	...	332
Crushed and broken stone, n.e.c.:						
40	Number of establishments.....	95	91	16	...	16
41	Number of employees.....	882	(D)	20	...	20
42	Value added in mining.....\$1,000..	10,050	(D)	119	...	119
Common sand and gravel:						
43	Number of establishments.....	3,756	3,752	598	...	472
44	Number of employees.....	34,090	(D)	11,055	...	777
45	Value added in mining.....\$1,000..	334,046	(D)	118,580	...	6,356

See footnotes at end of table.

MINING INDUSTRIES IN THE UNITED STATES, BY TYPE OF OPERATION AND BY MAJOR INDUSTRY GROUPS AND INDUSTRIES: 1954—Continued

For explanation of line captions, see INTRODUCTION)

Producing establishments—Continued								Nonproducing establishments	
Mines only—Continued		Mines with preparation plants					Separately operated preparation plants		
Combination underground and open-pit mines	Other mines	Total	Underground mines	Open-pit mines	Combination underground and open-pit mines	Other mines			
⁹ 43	...	570	439	⁸ 101	⁹ 30	...	134	51	1
⁹ 1,689	...	113,718	101,134	⁸ 7,788	⁹ 4,796	...	2,366	202	2
⁹ 8,071	...	777,734	644,155	⁸ 100,992	⁹ 32,587	...	19,503	(²)	3
...	4
...	5
...	6
...	7
...	8
...	9
...	10
...	11
...	12
...	13
...	14
...	15
...	16
...	17
...	18
...	19
...	20
...	21
...	...	1,337	69	1,253	15	...	19	6	22
...	...	27,430	3,034	23,956	440	...	280	12	23
...	...	233,735	17,761	212,702	3,272	...	2,568	40	24
1	...	85	1	84	...	...	2	1	25
(D)	...	¹⁰ 2,464	(D)	(D)	...	...	(D)	(D)	26
(D)	...	¹⁰ 21,527	(D)	(D)	...	...	(D)	(D)	27
...	...	11	...	10	1	...	...	...	28
...	...	533	...	(D)	(D)	...	...	...	29
...	...	5,055	...	(D)	(D)	...	...	...	30
...	...	14	2	11	1	...	1	1	31
...	...	(D)	(D)	(D)	(D)	...	(D)	(D)	32
...	...	(D)	(D)	(D)	(D)	...	(D)	(D)	33
...	...	126	1	124	1	...	3	2	34
...	...	¹⁰ 2,969	(D)	(D)	(D)	...	(D)	(D)	35
...	...	¹⁰ 33,971	(D)	(D)	(D)	...	(D)	(D)	36
...	...	68	1	67	...	...	4	2	37
...	...	¹⁰ 1,642	(D)	(D)	...	...	(D)	(D)	38
...	...	¹⁰ 22,581	(D)	(D)	...	...	(D)	(D)	39
...	...	75	2	72	1	...	...	4	40
...	...	¹² 862	(D)	(D)	(D)	...	...	(D)	41
...	...	¹² 9,931	(D)	(D)	(D)	...	...	(D)	42
...	¹³ 126	3,129	...	2,247	...	¹³ 882	25	4	43
...	¹³ 278	¹⁰ 33,035	...	23,184	...	¹³ 9,851	(D)	(D)	44
...	¹³ 2,224	¹⁰ 325,466	...	227,400	...	¹³ 98,066	(D)	(D)	45

MINERAL INDUSTRIES—SUMMARY STATISTICS

Table 1.—NUMBER OF ESTABLISHMENTS, EMPLOYMENT, AND VALUE ADDED IN THE METAL MINING, COAL MINING, AND NONMETALLIC MINERALS (EXCEPT FUELS)
(Excludes data for contract service establishments.)

Major industry group, industry, and item		All types of establishments	Producing establishments			
			Total	Mines only		
				Total	Underground mines	Open-pit mines
NONMETALLIC MINERALS (EXCEPT FUELS) MINING—Continued						
Glass sand:						
1	Number of establishments.....	44	44	6	...	6
2	Number of employees.....	1,295	1,295	9	...	9
3	Value added in mining.....\$1,000..	13,701	13,701	111	...	111
Foundry sand:						
4	Number of establishments.....	131	131	16	...	16
5	Number of employees.....	1,081	1,081	40	...	40
6	Value added in mining.....\$1,000..	8,982	8,982	264	...	264
Bentonite:						
7	Number of establishments.....	43	42	15	...	13
8	Number of employees.....	634	(D)	161	...	(D)
9	Value added in mining.....\$1,000..	16,350	(D)	2,553	...	(D)
Fire clay:						
10	Number of establishments.....	248	248	187	46	128
11	Number of employees.....	1,987	1,987	1,234	463	506
12	Value added in mining.....\$1,000..	17,468	17,468	9,647	2,263	6,080
Fuller's earth:						
13	Number of establishments.....	16	15	3	...	3
14	Number of employees.....	564	564	4	...	4
15	Value added in mining.....\$1,000..	4,179	4,179	26	...	26
Kaolin and ball clay:						
16	Number of establishments.....	54	53	15	...	14
17	Number of employees.....	3,148	(D)	11216	...	(D)
18	Value added in mining.....\$1,000..	25,249	(D)	113,066	...	(D)
Feldspar:						
19	Number of establishments.....	84	84	62	5	56
20	Number of employees.....	616	616	128	(D)	(D)
21	Value added in mining.....\$1,000..	4,048	4,048	725	(D)	(D)
Magnesite and brucite:						
22	Number of establishments.....	4	4	3	...	3
23	Number of employees.....	132	132	(D)	...	(D)
24	Value added in mining.....\$1,000..	1,372	1,372	(D)	...	(D)
Clay, ceramic, and refractory minerals, n.e.c.:						
25	Number of establishments.....	183	179	96	2	93
26	Number of employees.....	1,151	(D)	11291	(D)	(D)
27	Value added in mining.....\$1,000..	9,783	(D)	112,127	(D)	(D)
Natural abrasives, except sand:						
28	Number of establishments.....	32	32	8	...	8
29	Number of employees.....	285	285	2	...	2
30	Value added in mining.....\$1,000..	3,681	3,681	33	...	33
Barite:						
31	Number of establishments.....	44	42	8	...	8
32	Number of employees.....	1,125	(D)	1126	...	26
33	Value added in mining.....\$1,000..	14,051	(D)	11237	...	237
Fluorspar:						
34	Number of establishments.....	104	94	63	58	3
35	Number of employees.....	1,260	1,202	129	89	(D)
36	Value added in mining.....\$1,000..	9,914	9,905	1,229	602	(D)
Potash, soda, and borate minerals:						
37	Number of establishments.....	20	19	3	1	...
38	Number of employees.....	6,322	(D)	(D)	(D)	...
39	Value added in mining.....\$1,000..	82,213	(D)	(D)	(D)	...
Phosphate rock:						
40	Number of establishments.....	75	71	20	4	16
41	Number of employees.....	5,440	(D)	11472	327	145
42	Value added in mining.....\$1,000..	62,089	(D)	113,870	2,243	1,627
Rock salt:						
43	Number of establishments.....	15	15	2	...	2
44	Number of employees.....	1,925	1,925	(D)	...	(D)
45	Value added in mining.....\$1,000..	30,013	30,013	(D)	...	(D)
Sulfur:						
46	Number of establishments.....	20	14	14	...	1
47	Number of employees.....	4,095	(D)	(D)	...	(D)
48	Value added in mining.....\$1,000..	124,166	(D)	(D)	...	(D)

See footnotes at end of table.

TYPE OF OPERATION

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MINING INDUSTRIES IN THE UNITED STATES, BY TYPE OF OPERATION AND BY MAJOR INDUSTRY GROUPS AND INDUSTRIES: 1954—Continued

For explanation of line captions, see INTRODUCTION)

Producing establishments—Continued									
Mines only—Continued		Mines with preparation plants					Separately operated preparation plants	Nonproducing establishments	
Combination underground and open-pit mines	Other mines	Total	Underground mines	Open-pit mines	Combination underground and open-pit mines	Other mines			
...	...	38	...	29	...	139	...	...	1
...	...	1,286	...	1,082	...	13204	...	...	2
...	...	13,590	...	11,593	...	131,997	...	...	3
...	...	113	...	98	...	1315	2	...	4
...	...	141,041	...	799	...	13242	(D)	...	5
...	...	148,718	...	6,292	...	132,426	(D)	...	6
2	...	27	1	25	1	...	...	1	7
(D)	...	12473	(D)	(D)	(D)	...	...	(D)	8
(D)	...	1213,797	(D)	(D)	(D)	...	...	(D)	9
13	...	61	7	48	6	...	...	...	10
265	...	753	(D)	530	(D)	...	...	...	11
1,304	...	7,821	(D)	4,435	(D)	...	...	...	12
...	...	13	...	12	...	...	...	1	13
...	...	560	...	12560	...	...	...	(D)	14
...	...	4,153	...	124,153	...	...	...	(D)	15
1	...	38	...	37	...	41	...	1	16
(D)	...	2,932	...	(D)	...	(D)	...	(D)	17
(D)	...	22,183	...	(D)	...	(D)	...	(D)	18
1	...	22	3	18	1	...	...	...	19
(D)	...	488	(D)	(D)	(D)	...	...	...	20
(D)	...	3,323	(D)	(D)	(D)	...	...	...	21
...	...	1	...	1	...	...	...	...	22
...	...	(D)	...	(D)	...	...	...	...	23
...	...	(D)	...	(D)	...	...	...	...	24
1	...	82	...	82	...	...	1	4	25
(D)	...	10860	...	860	...	...	(D)	(D)	26
(D)	...	107,656	...	7,656	...	...	(D)	(D)	27
...	...	23	2	21	...	...	1	...	28
...	...	14283	(D)	(D)	...	...	(D)	...	29
...	...	143,648	(D)	(D)	...	...	(D)	...	30
...	...	34	2	31	1	...	...	2	31
...	...	1,099	(D)	12708	(D)	...	...	(D)	32
...	...	13,814	(D)	1210,308	(D)	...	...	(D)	33
2	...	26	18	5	3	...	5	10	34
(D)	...	1,015	861	(D)	(D)	...	58	18	35
(D)	...	8,180	6,152	(D)	(D)	...	496	9	36
1	151	16	9	1	...	156	...	1	37
(D)	(D)	(D)	(D)	(D)	...	(D)	...	(D)	38
(D)	(D)	(D)	(D)	(D)	...	(D)	...	(D)	39
...	...	44	1	41	2	...	7	4	40
...	...	3,748	(D)	123,523	(D)	...	1,220	(D)	41
...	...	40,693	(D)	1238,779	(D)	...	17,526	(D)	42
...	...	13	11	2	...	...	...	...	43
...	...	(D)	(D)	(D)	...	...	...	...	44
...	...	(D)	(D)	(D)	...	...	...	...	45
...	1613	...	...	...	...	...	...	6	46
...	(D)	...	...	...	...	...	...	(D)	47
...	(D)	...	...	...	...	...	...	(D)	48

MINERAL INDUSTRIES—SUMMARY STATISTICS

Table 1.—NUMBER OF ESTABLISHMENTS, EMPLOYMENT, AND VALUE ADDED IN THE METAL MINING, COAL MINING, AND NONMETALLIC MINERALS (EXCEPT FUELS)
(Excludes data for contract service establishments.)

Major industry group, industry, and item		All types of establishments	Producing establishments			
			Total	Mines only		
				Total	Underground mines	Open-pit mines
NONMETALLIC MINERALS (EXCEPT FUELS) MINING—Continued						
Chemical and fertilizer mineral mining, n.e.c.:						
1	Number of establishments.....	39	35	8	1	6
2	Number of employees.....	1,442	(D)	¹¹ 17	(D)	(D)
3	Value added in mining.....\$1,000..	18,074	(D)	¹¹ 78	(D)	(D)
Gypsum:						
4	Number of establishments.....	37	35	15	1	14
5	Number of employees.....	449	(D)	¹¹ 86	(D)	(D)
6	Value added in mining.....\$1,000..	5,352	(D)	¹¹ 1,139	(D)	(D)
Mica:						
7	Number of establishments.....	498	490	47	5	41
8	Number of employees.....	710	698	24	(D)	11
9	Value added in mining.....\$1,000..	3,284	3,196	181	(D)	85
Pumice and pumicite:						
10	Number of establishments.....	75	73	26	...	26
11	Number of employees.....	267	(D)	¹¹ 27	...	27
12	Value added in mining.....\$1,000..	2,741	(D)	¹¹ 382	...	382
Talc, soapstone, and pyrophyllite:						
13	Number of establishments.....	68	64	26	16	10
14	Number of employees.....	1,471	1,465	88	80	8
15	Value added in mining.....\$1,000..	9,486	9,465	871	757	114
Peat:						
16	Number of establishments.....	88	84	19	...	19
17	Number of employees.....	353	342	15	...	15
18	Value added in mining.....\$1,000..	1,800	1,791	105	...	105
Native asphalt and bitumens, Vermiculite, and Nonmetallic minerals, n.e.c.:						
19	Number of establishments.....	82	75	12	6	5
20	Number of employees.....	2,319	2,318	87	(D)	(D)
21	Value added in mining.....\$1,000..	22,294	22,289	608	(D)	(D)

D Withheld to avoid approximately disclosing figures for individual companies.

¹Includes employees at central offices not classified by type of operation.²Value added is not shown since the cost of supplies, fuel, purchased electric energy, contract work, and purchased machinery exceeds capital expenditures.³Represents placer operations.⁴Represents dredge operations.⁵Includes culm banks.⁶Includes culm banks and combination strip pits and culm banks.⁷Includes combination underground mines and strip pits, and combination underground mines, strip pits, and culm banks.⁸Includes auger mines and combination strip pits and auger mines.⁹Includes combination underground and auger mines.¹⁰Includes figures for separately-operated preparation plants and nonproducing mines with preparation plants.¹¹Includes figures for nonproducing mines without preparation plants.¹²Includes figures for nonproducing mines with preparation plants.¹³Represents primarily establishments which did not specify method of mining or which reported combinations of mining methods. Also included are river, lake, and ocean operations.¹⁴Includes figures for separately-operated preparation plants.¹⁵Represents brine operations.¹⁶Represents well operations.

TYPE OF OPERATION

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MINING INDUSTRIES IN THE UNITED STATES, BY TYPE OF OPERATION AND BY MAJOR INDUSTRY GROUPS AND INDUSTRIES: 1954—Continued

For explanation of line captions, see INTRODUCTION)

Producing establishments—Continued								Nonproducing establishments	
Mines only—Continued		Mines with preparation plants					Separately operated preparation plants		
Combination underground and open-pit mines	Other mines	Total	Underground mines	Open-pit mines	Combination underground and open-pit mines	Other mines			
1	...	12	3	8	1	...	15	4	1
(D)	...	121,193	(D)	(D)	(D)	...	232	(D)	2
(D)	...	1211,818	(D)	(D)	(D)	...	6,178	(D)	3
...	...	18	2	15	1	...	2	2	4
...	...	10363	(D)	(D)	(D)	...	(D)	(D)	5
...	...	104,213	(D)	(D)	(D)	...	(D)	(D)	6
1	...	438	77	351	10	...	5	8	7
(D)	...	14674	(D)	327	(D)	...	(D)	12	8
(D)	...	143,015	(D)	1,538	(D)	...	(D)	88	9
...	...	47	...	47	...	...	...	2	10
...	...	240	...	240	...	...	...	(D)	11
...	...	2,359	...	2,359	...	...	...	(D)	12
...	...	38	17	21	...	...	...	4	13
...	...	1,377	488	889	...	...	...	6	14
...	...	8,594	3,846	4,748	...	...	...	21	15
...	...	65	...	65	...	...	...	4	16
...	...	327	...	327	...	...	...	11	17
...	...	1,686	...	1,686	...	...	...	9	18
1	...	62	14	48	...	...	1	7	19
(D)	...	142,231	271	1,960	...	...	(D)	1	20
(D)	...	1421,681	2,958	18,723	...	...	(D)	5	21

MINERAL INDUSTRIES—SUMMARY STATISTICS

Table 2.—GENERAL STATISTICS FOR NONPRODUCING MINERAL ESTABLISHMENTS IN THE
(For explanation of line captions,

Item	All mineral industries		Metal mining			
	1954	1939	Total		Iron ores	Copper ores
			1954	1939		
1 Number of operating companies.....	(NA)	453	716	100	11	48
2 Number of establishments.....	1,596	(NA)	784	(NA)	16	51
3 Number of mines and quarries.....	909	162	774	103	16	50
4 Number of preparation plants.....	194	32	135	15	6	8
5 Number of persons engaged, total.....	6,486	2,175	3,281	952	435	821
6 Production and development workers.....	3,502	1,456	2,170	760	333	677
7 All other employees.....	1,980	511	600	176	102	116
8 Proprietors and firm members.....	1,004	208	511	16	...	28
9 Performing manual labor.....	487	54	300	10	...	21
10 Man-hours worked by production and development workers.....1,000..	6,982	2,744	4,535	1,431	600	1,780
11 Wages and salaries, total.....\$1,000..	24,894	2,685	12,015	1,117	1,810	4,656
12 Wages of production and development workers.....do....	14,505	1,799	9,281	847	1,318	3,902
13 Salaries of all other employees.....do....	10,389	886	2,734	270	492	754
14 New capital expenditures.....do....	109,353	(NA)	76,827	(NA)	33,316	28,437
	Bituminous coal		Crude petroleum and natural gas extraction			
	1954	1939	Total		Crude petroleum and Natural gas	Natural gas liquids
			1954	1939		
1 Number of operating companies.....	38	25	(NA)	307	(NA)	9
2 Number of establishments.....	51	(NA)	671	(NA)	662	9
3 Number of mines and quarries.....	51	30	...	(NA)	...	xxx
4 Number of preparation plants.....	9	...	9	2	...	9
5 Number of persons engaged, total.....	222	144	2,768	753	2,743	25
6 Production and development workers.....	148	109	1,043	339	1,023	20
7 All other employees.....	54	34	1,298	224	1,293	5
8 Proprietors and firm members.....	20	1	427	190	427	...
9 Performing manual labor.....	13	1	145	42	145	...
10 Man-hours worked by production and development workers.....1,000..	285	210	1,875	596	1,833	42
11 Wages and salaries, total.....\$1,000..	913	199	⁸ 11,318	936	11,214	(D)
12 Wages of production and development workers.....do....	590	137	4,102	529	3,998	104
13 Salaries of all other employees.....do....	323	62	⁸ 7,216	407	7,216	(D)
14 New capital expenditures.....do....	281	(NA)	27,702	(NA)	15,102	12,600

D Withheld to avoid approximately disclosing figures for individual companies.

NA Not available.

¹Represents 1 nonproducing establishment in the Molybdenum ores industry; 7 in the Chromium ores subindustry; 2 in the Nickel ores subindustry; and 1 in the Columbian ores subindustry.²Represents 3 nonproducing establishments in the Titanium ores industry and 6 in the Metallic ores, n.e.c., industry.³Represents 1 nonproducing establishment in the Crushed and broken granite industry; 1 in the Crushed and broken marble industry; 2 in the Crushed and broken trap rock industry; 2 in the Crushed and broken sandstone industry; 4 in the Crushed and broken stone, n.e.c., industry; and 4 in the Common sand and gravel subindustry.

UNITED STATES, BY MAJOR INDUSTRY GROUP, 1954 AND 1939, AND BY INDUSTRY, 1954
see INTRODUCTION)

Metal mining—Continued											Anthracite	
Lead and zinc ores		Gold and silver ores			Ferro-alloy ores, except vanadium			Miscellaneous metal ores			1954	1939
Ores valued chiefly for lead	Ores valued chiefly for zinc	Lode gold	Placer gold	Silver ores	Manganese ores	Tungsten ores	Molybdenum ores and Ferro-alloy ores, except vanadium, n.e.c. ¹	Mercury ores	Uranium-radium-vanadium ores	Titanium ores and Metallic ores, n.e.c. ²		
87	24	112	32	37	14	39	11	14	278	9	7	5
92	43	114	33	37	14	39	11	18	307	9	9	(NA)
92	39	114	33	37	14	36	9	18	307	9	8	11
12	11	30	26	9	3	14	5	9	...	2	3	5
265	169	267	81	105	55	79	58	42	736	168	57	127
146	127	164	30	60	43	37	32	14	474	33	40	68
47	32	33	12	23	7	8	11	13	65	131	13	58
72	10	70	39	22	5	34	15	15	197	4	4	1
55	7	43	31	15	4	26	4	8	85	1	2	1
293	249	288	49	114	63	65	67	32	863	72	96	155
846	552	574	132	242	114	145	204	114	1,904	722	305	206
642	426	477	82	183	97	120	143	55	1,671	165	236	98
204	126	97	50	59	17	25	61	59	233	557	69	108
1,299	3,367	514	184	365	248	209	473	66	4,639	3,710	143	(NA)
Nonmetallic minerals (except fuels) mining												
Total		Crushed and broken stone and Sand and gravel		Clay, ceramic, and refractory minerals ⁴	Chemical and fertilizer mineral mining		Miscellaneous nonmetallic minerals (except fuels)					
1954	1939	Crushed and broken limestone	All other ³		Fluorspar	All other ⁵	Gypsum and Pumice and pumicite ⁶	Mica	Talc, soapstone, and pyrophyllite	Peat	Native asphalt and bitumens, Vermiculite, and Non-metallic minerals, n.e.c. ⁷	
81	16	6	14	7	10	17	4	8	4	4	7	1
81	(NA)	6	14	7	10	17	4	8	4	4	7	2
76	18	6	14	7	10	13	4	8	4	3	7	3
38	10	5	10	3	2	7	3	2	1	3	2	4
158	199	13	24	18	30	23	4	17	11	11	7	5
101	180	8	21	13	16	15	2	9	6	10	1	6
15	19	4	2	1	2	2	...	3	...	1	...	7
42	...	1	1	4	12	6	2	5	5	...	6	8
27	...	1	1	3	11	2	2	...	2	...	5	9
191	352	13	47	23	30	35	2	13	12	15	1	10
343	227	30	75	33	61	71	7	23	20	22	1	11
296	188	20	70	31	54	58	6	15	20	21	1	12
47	39	10	5	2	7	13	1	8	...	1	...	13
4,400	(NA)	57	314	31	16	3,487	6	435	25	21	8	14

⁴Represents 1 nonproducing establishment in the Bentonite industry; 1 in the Fuller's earth industry; 1 in the Kaolin and ball clay industry; and 4 in the Clay, ceramic, and refractory minerals, n.e.c., industry.

⁵Represents 2 nonproducing establishments in the Barite industry; 1 in the Potash, soda, and borate minerals industry; 4 in the Phosphate rock industry; 6 in the Sulfur industry; and 4 in the Chemical and fertilizer mineral mining, n.e.c., industry.

⁶Represents 2 nonproducing establishments in the Gypsum industry and 2 in the Pumice and pumicite industry.

⁷Represents 1 nonproducing establishment in the Vermiculite industry and 6 in the Nonmetallic minerals, n.e.c., industry.

⁸Excludes salaries paid to salaried employees at nonproducing establishments in the Natural gas liquids industry.

MINERAL INDUSTRIES—SUMMARY STATISTICS

Table 3.—NUMBER OF NONPRODUCING ESTABLISHMENTS IN THE MINERAL INDUSTRIES IN THE UNITED STATES, BY INDUSTRY, GEOGRAPHIC DIVISION, AND STATE: 1954

Geographic division and State	All mineral industries, total	Metal mining							
		Total	Iron ores	Copper ores	Lead and zinc ores		Lode gold	Placer gold	Silver ores
					Valued chiefly for lead	Valued chiefly for zinc			
United States, total.....	1,596	784	16	51	92	43	114	33	37
New England, total.....	6	2	...	...	...	2	...	...	...
Maine.....	3	...	...	...	...	...	...	...	...
New Hampshire.....	1	1	...	...	...	1	...	...	...
Vermont.....	1	1	...	...	...	1	...	...	...
Massachusetts.....	1	...	...	...	...	...	...	...	...
Middle Atlantic, total.....	56	5	2	...	...	3	...	...	...
New York.....	8	2	1	...	...	1	...	...	...
New Jersey.....	4	1	...	...	...	1	...	...	...
Pennsylvania.....	44	2	1	...	...	1	...	...	...
East North Central, total.....	68	8	4	...	...	4	...	...	...
Ohio.....	14	...	...	...	...	...	...	...	...
Indiana.....	12	...	...	...	...	...	...	...	...
Illinois.....	25	2	...	...	...	2	...	...	...
Michigan.....	13	3	3	...	...	...	...	...	...
Wisconsin.....	4	3	1	...	...	2	...	...	...
West North Central, total.....	117	25	8	...	3	1	4	...	...
Minnesota.....	10	9	8	...	...	...	...	...	...
Iowa.....	2	...	...	...	...	...	...	...	...
Missouri.....	6	3	...	...	1	1	...	...	...
North Dakota.....	20	1	...	...	...	...	...	...	...
South Dakota.....	30	10	...	...	...	...	4	...	...
Nebraska.....	15	...	...	...	...	...	...	...	...
Kansas.....	34	2	...	...	2	...	...	...	...
South Atlantic, total.....	93	18	...	2	...	5	...	...	...
Maryland.....	2	1	...	...	...	1	...	...	...
Virginia.....	16	6	...	...	...	3	...	...	...
West Virginia.....	26	...	...	...	...	...	...	...	...
North Carolina.....	10	6	...	2	...	1	...	...	...
South Carolina.....	2	1	...	...	...	...	...	...	...
Georgia.....	13	1	...	...	...	...	...	...	...
Florida.....	24	3	...	...	...	...	...	...	...
East South Central, total.....	71	5	...	...	...	4	...	...	...
Kentucky.....	20	1	...	...	...	1	...	...	...
Tennessee.....	13	3	...	...	...	3	...	...	...
Alabama.....	19	1	...	...	...	...	...	...	...
Mississippi.....	19	...	...	...	...	...	...	...	...
West South Central, total.....	231	12	1	1	3	3	...	...	1
Arkansas.....	21	4	...	...	1	1	...	...	...
Louisiana.....	31	...	...	...	...	...	...	...	...
Oklahoma.....	68	4	...	...	1	2	...	...	...
Texas.....	111	4	1	1	1	...	...	...	1
Mountain, total.....	754	555	...	33	80	16	67	13	33
Montana.....	65	37	...	1	7	1	10	2	6
Idaho.....	54	50	...	3	19	3	10	2	4
Wyoming.....	56	12	...	...	...	...	1	1	1
Colorado.....	192	144	...	1	14	2	15	5	6
New Mexico.....	50	32	...	3	3	5	...	2	2
Arizona.....	102	86	...	16	16	3	15	1	5
Utah.....	165	140	...	3	10	1	7	...	2
Nevada.....	70	54	...	6	11	1	9	...	7
Pacific, total.....	200	154	1	15	6	5	43	20	3
Washington.....	30	23	...	4	1	5	5	...	3
Oregon.....	29	22	...	2	...	...	6	4	...
California.....	141	109	1	9	5	...	32	16	...

Table 3.—NUMBER OF NONPRODUCING ESTABLISHMENTS IN THE MINERAL INDUSTRIES IN THE UNITED STATES, BY INDUSTRY, GEOGRAPHIC DIVISION, AND STATE: 1954—Continued

Geographic division and State	Metal mining—Continued							
	Ferro-alloy ores, except vanadium				Miscellaneous metal ores			
	Manganese ores	Tungsten ores	Molybdenum ores	Ferro-alloy ores, except vanadium, n.e.c.	Mercury ores	Uranium- radium- vanadium ores	Titanium ores	Metallic ores, n.e.c.
United States, total.....	14	39	1	10	18	307	2	7
West North Central, total.....	...	...	...	1	...	8	...	...
Minnesota.....	...	...	...	1	...	...	...	...
Missouri.....	...	...	...	...	...	1	...	...
North Dakota.....	...	...	...	...	...	1	...	...
South Dakota.....	...	...	...	...	...	6	...	...
South Atlantic, total.....	4	...	...	...	...	4	2	1
Virginia.....	3	...	...	...	...	...	...	...
North Carolina.....	...	...	...	...	...	3	...	...
South Carolina.....	...	...	...	...	...	...	...	1
Georgia.....	1	...	...	...	...	...	...	...
Florida.....	...	...	...	...	...	1	2	...
East South Central, total.....	...	...	...	...	...	1	...	...
Alabama.....	...	...	...	...	...	1	...	...
West South Central, total.....	2	...	...	...	...	1	...	...
Arkansas.....	2	...	...	...	...	...	...	...
Oklahoma.....	...	...	...	...	...	1	...	...
Mountain, total.....	5	19	...	1	5	279	...	4
Montana.....	2	4	...	...	...	4	...	...
Idaho.....	...	4	...	1	...	1	...	3
Wyoming.....	...	...	...	...	...	9	...	...
Colorado.....	...	1	...	...	...	100	...	...
New Mexico.....	...	...	...	...	...	17	...	...
Arizona.....	1	1	...	...	...	28	...	...
Utah.....	...	3	...	...	...	114	...	...
Nevada.....	2	6	...	...	5	6	...	1
Pacific, total.....	3	20	1	8	13	14	...	2
Washington.....	1	...	1	...	1	2	...	...
Oregon.....	...	...	...	4	5	...	...	1
California.....	2	20	...	4	7	12	...	1
	Bituminous coal	Anthracite	Crude petroleum and natural gas extraction					
			Total	Crude petroleum and Natural gas	Natural gas liquids			
United States, total.....	51	9	671	662	9			
Middle Atlantic, total.....	15	9	20	20	...			
New York.....	...	...	3	3	...			
Pennsylvania.....	15	9	17	17	...			
East North Central, total.....	5	...	50	50	...			
Ohio.....	1	...	12	12	...			
Indiana.....	...	...	12	12	...			
Illinois.....	4	...	16	16	...			
Michigan.....	...	...	10	10	...			
West North Central, total.....	1	...	89	89	...			
Minnesota.....	...	...	1	1	...			
Iowa.....	1	...	...	...	...
Missouri.....	...	...	3	3	...			
North Dakota.....	...	...	19	19	...			
South Dakota.....	...	...	19	19	...			
Nebraska.....	...	...	15	15	...			
Kansas.....	...	...	32	32	...			
South Atlantic, total.....	19	...	42	42	...			
Maryland.....	...	...	1	1	...			
Virginia.....	6	...	1	1	...			
West Virginia.....	13	...	13	13	...			
Georgia.....	...	...	7	7	...			
Florida.....	...	...	20	20	...			
East South Central, total.....	6	...	58	58	...			
Kentucky.....	4	...	14	14	...			
Tennessee.....	1	...	8	8	...			
Alabama.....	1	...	17	17	...			
Mississippi.....	...	...	19	19	...			
West South Central, total.....	2	...	214	209	5			
Arkansas.....	1	...	16	16	...			
Louisiana.....	...	...	31	30	1			
Oklahoma.....	1	...	63	63	...			
Texas.....	...	...	104	100	4			
Mountain, total.....	3	...	168	165	3			
Montana.....	2	...	25	25	...			
Idaho.....	...	...	1	1	...			
Wyoming.....	...	...	38	36	2			
Colorado.....	...	...	43	42	1			
New Mexico.....	...	...	12	12	...			
Arizona.....	...	...	15	15	...			
Utah.....	1	...	21	21	...			
Nevada.....	...	...	13	13	...			
Pacific, total.....	...	...	30	29	1			
Washington.....	...	...	6	6	...			
Oregon.....	...	...	4	4	...			
California.....	...	...	20	19	...			

MINERAL INDUSTRIES—SUMMARY STATISTICS

Table 3.—NUMBER OF NONPRODUCING ESTABLISHMENTS IN THE MINERAL INDUSTRIES IN THE UNITED STATES, BY INDUSTRY, GEOGRAPHIC DIVISION, AND STATE: 1954—Continued

Geographic division and State	Nonmetallic minerals (except fuels) mining										
	Total	Crushed and broken stone						Common sand and gravel	Clay, ceramic, and refractory minerals		
		Lime-stone	Granite	Marble	Trap rock	Sand-stone	Stone, n.e.c.		Bentonite	Fuller's earth	Kaolin and ball clay
United States, total.....	81	6	1	1	2	2	4	4	1	1	1
New England, total.....	4	...	1	...	...	...	...	...	...	...	...
Maine.....	3	...	1	...	...	...	...	...	...	...	...
Massachusetts.....	1	...	...	...	...	...	...	...	...	...	...
Middle Atlantic, total.....	7	...	...	...	2	...	1	2	...	...	...
New York.....	3	...	...	...	...	...	...	2	...	...	...
New Jersey.....	3	...	...	...	2	...	...	...	...	...	...
Pennsylvania.....	1	...	...	...	...	...	1	...	...	...	...
East North Central, total.....	5	...	...	...	...	1	1	1	...	...	...
Ohio.....	1	...	...	...	...	...	1	...	...	...	...
Illinois.....	3	...	...	...	...	...	...	1	...	...	...
Wisconsin.....	1	...	...	...	...	1	...	...	...	...	...
West North Central, total.....	2	1	...	...	...	...	...	...	...	...	...
Iowa.....	1	1	...	...	...	...	...	...	...	...	...
South Dakota.....	1	...	...	...	...	...	...	...	...	...	...
South Atlantic, total.....	14	3	...	1	...	...	1	...	...	...	1
Virginia.....	3	2	...	...	...	...	1	...	...	...	...
North Carolina.....	4	...	...	...	...	...	...	...	...	...	...
South Carolina.....	1	...	...	...	...	...	...	...	...	...	...
Georgia.....	5	1	...	1	...	...	...	...	...	...	1
Florida.....	1	...	...	...	...	...	...	...	...	...	...
East South Central, total.....	2	...	...	...	...	...	...	...	...	...	...
Kentucky.....	1	...	...	...	...	...	...	...	...	...	...
Tennessee.....	1	...	...	...	...	...	...	...	...	...	...
West South Central, total.....	3	...	...	...	...	...	...	...	...	1	...
Texas.....	3	...	...	...	...	...	...	...	...	1	...
Mountain, total.....	28	...	...	...	...	...	1	...	1	...	...
Montana.....	1	...	...	...	...	...	...	...	...	...	...
Idaho.....	3	...	...	...	...	...	1	...	...	...	...
Wyoming.....	6	...	...	...	...	...	...	...	1	...	...
Colorado.....	5	...	...	...	...	...	...	...	...	...	...
New Mexico.....	6	...	...	...	...	...	...	...	...	...	...
Arizona.....	1	...	...	...	...	...	...	...	...	...	...
Utah.....	3	...	...	...	...	...	...	...	...	...	...
Nevada.....	3	...	...	...	...	...	...	...	...	...	...
Pacific, total.....	16	2	...	...	...	1	...	1	...	...	...
Washington.....	1	...	...	...	...	...	...	...	...	...	...
Oregon.....	3	...	...	...	...	...	...	1	...	...	...
California.....	12	2	...	...	...	1	...	...	...	...	...

Table 3.—NUMBER OF NONPRODUCING ESTABLISHMENTS IN THE MINERAL INDUSTRIES IN THE UNITED STATES, BY INDUSTRY, GEOGRAPHIC DIVISION, AND STATE: 1954—Continued

Geographic division and State	Nonmetallic minerals (except fuels) mining--Continued													
	Clay, ceramic, and refractory minerals, n.e.c.	Chemical and fertilizer mineral mining						Miscellaneous nonmetallic minerals (except fuels)						
		Barite	Fluor-spar	Pot-ash, soda, and borate minerals	Phos-phate rock	Sul-fur	Chemical fertilizer and mineral mining, n.e.c.	Gypsum	Mica	Pumice and pumic-ite	Talc, soap-stone, and pyrophyllite	Ver-mic-ulite	Peat	Non-metallic minerals, n.e.c.
United States, total.....	4	2	10	1	4	6	4	2	8	2	4	1	4	6
New England, total.....	...	...	...	...	...	...	1	...	...	...	...	...	2	...
Maine.....	...	...	...	...	...	...	1	...	...	...	...	...	1	...
Massachusetts.....	...	...	...	...	...	...	...	...	...	...	...	...	1	...
Middle Atlantic, total.....	...	...	...	...	...	...	...	...	...	...	1	...	1	...
New York.....	...	...	...	...	...	...	...	...	...	...	1	...	...	...
New Jersey.....	...	...	...	...	...	...	...	...	...	...	...	...	1	...
East North Central, total.....	...	...	2	...	...	...	...	...	...	...	...	...	...	...
Illinois.....	...	...	2	...	...	...	...	...	...	...	...	...	...	...
West North Central, total.....	1	...	...	...	...	...	...	...	...	...	...	...	...	...
South Dakota.....	1	...	...	...	...	...	...	...	...	...	...	...	...	...
South Atlantic, total.....	...	...	...	...	1	...	...	...	4	...	1	1	1	...
North Carolina.....	...	...	...	...	...	...	...	...	3	...	1	...	...	...
South Carolina.....	...	...	...	...	...	...	...	...	...	...	...	1	...	...
Georgia.....	...	...	...	...	...	...	...	...	1	...	...	...	1	...
Florida.....	...	...	...	...	1	...	...	...	...	...	...	...	...	...
East South Central, total.....	...	...	1	...	1	...	...	...	...	...	...	...	...	...
Kentucky.....	...	...	1	...	...	...	...	...	...	...	...	...	...	...
Tennessee.....	...	...	...	...	1	...	...	...	...	...	...	...	...	...
West South Central, total.....	1	...	...	...	...	1	...	...	...	...	...	...	...	...
Texas.....	1	...	...	...	...	1	...	...	...	...	...	...	...	...
Mountain, total.....	1	...	6	...	2	4	3	2	4	1	1	...	...	2
Montana.....	...	...	...	...	1	...	...	...	...	...	...	...	...	...
Idaho.....	...	...	...	...	1	...	...	...	...	1	...	...	...	...
Wyoming.....	...	...	...	...	...	3	1	1	...	...	...	...	...	...
Colorado.....	1	...	1	...	...	...	1	...	1	...	...	...	...	1
New Mexico.....	...	...	3	...	...	...	...	...	3	...	...	...	...	...
Arizona.....	...	...	...	...	...	...	...	1	...	...	...	...	...	...
Utah.....	...	...	1	...	...	1	1	...	...	...	...	...	...	...
Nevada.....	...	...	1	...	...	...	...	...	...	...	1	...	...	1
Pacific, total.....	1	2	...	1	...	1	...	...	...	1	1	...	...	4
Washington.....	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Oregon.....	...	...	...	...	...	...	...	...	...	...	...	...	...	2
California.....	1	2	1	1	...	1	...	...	...	1	1	...	...	1

MINERAL INDUSTRIES—SUMMARY STATISTICS

Table 4.—SELECTED STATISTICS FOR MINING OPERATIONS INCLUDED IN THE CENSUSES OF MANUFACTURES AND WHOLESALE TRADE, BY KIND OF MINERAL OPERATION: 1954

(For explanation of column captions, see INTRODUCTION)

Kind of mineral operation	Number of mines and quarries	Man-hours worked by production and development workers (1,000)					Principal expenses designated below (\$1,000)		
		Total	At mines			At dimension stone dressing plants	Total	Wages and salaries ²	Cost of supplies, fuel, purchased electric energy, and contract work ³
			Under-ground	Open-pit	Surface				
All operations, total:									
Including common sand and gravel.....	1,436	47,187	2,795	28,109	61,279	¹³ 15,004	(NA)	85,957	(NA)
Excluding common sand and gravel ⁷	1,219	39,563	2,795	25,211	61,279	10,278	118,471	71,257	47,214
Dimension stone, total.....	206	17,262	72	5,633	1,279	10,278	45,077	31,602	13,475
Limestone.....	41	4,519	15	1,818	240	2,446	11,741	8,803	2,938
Granite.....	59	5,676	...	1,520	731	3,425	17,456	11,062	6,394
Slate.....	52	2,564	57	968	101	1,438	5,260	4,025	1,235
Marble.....	6	2,458	...	576	166	1,716	5,583	3,783	1,800
Sandstone.....	30	1,805	...	670	41	1,094	4,585	3,566	1,019
Stone, n.e.c.....	18	240	...	81	...	159	452	363	89
Crushed and broken stone, total.....	255	12,577	1,905	10,672	(⁹)	xxx	45,228	23,416	21,812
Limestone, total.....	243	12,329	1,905	10,424	(⁹)	xxx	44,162	22,872	21,290
Quarries operated as part of cement plants.....	141	8,303	453	7,850	(⁹)	xxx	31,262	16,112	15,150
Quarries operated as part of lime plants.....	77	3,375	1,452	1,923	(⁹)	xxx	10,931	5,743	5,188
Other quarries ¹¹	25	651	...	651	(⁹)	xxx	1,969	1,017	952
Granite ¹¹	3	48	...	48	(⁹)	xxx	279	106	173
Trap rock ¹¹	5	175	...	175	(⁹)	xxx	585	411	174
Stone, n.e.c. ¹¹	4	25	...	25	(⁹)	xxx	202	27	175
Common sand and gravel ⁷	217	7,624	...	2,898	(⁹)	¹² 4,726	(NA)	14,700	(NA)
Clay, ceramic, and refractory minerals, total.....	731	7,666	...	7,666	(⁹)	xxx	21,221	12,234	8,987
Fire clay.....	105	2,419	...	2,419	(⁹)	xxx	6,859	4,113	2,746
Kaolin and ball clay.....	8	46	...	46	(⁹)	xxx	92	59	33
Clay, ceramic, and refractory minerals, n.e.c.....	618	5,201	...	5,201	(⁹)	xxx	14,270	8,062	6,208
Nonmetallic minerals (except fuels), n.e.c.:									
Gypsum.....	27	2,058	818	1,240	(⁹)	xxx	6,945	4,005	2,940

See footnotes at end of table.

Table 4.—SELECTED STATISTICS FOR MINING OPERATIONS INCLUDED IN THE CENSUSES OF MANUFACTURES AND WHOLESALE TRADE, BY KIND OF MINERAL OPERATION: 1954—Continued

(For explanation of column captions, see INTRODUCTION)

Kind of mineral operation	Minerals produced, used, and shipped ¹					
	Quantity produced and used in the same manufacturing or wholesale trade establishment (1,000 short tons)	Shipments				
		Dimension stone			All other minerals	
		Quantity ⁴ (1,000 short tons)	Value (\$1,000) ⁵		Quantity ⁵ (1,000 short tons)	Value ⁵ (\$1,000)
			Rough stone	Dressed stone		
All operations, total:						
Including common sand and gravel.....	xxx	1,426	9,758	46,683	xxx	35,149
Excluding common sand and gravel ⁷	xxx	1,426	9,758	46,683	xxx	22,859
Dimension stone, total.....	⁸ 1,446	1,426	9,758	46,683	xxx	xxx
Limestone.....	⁸ 562	614	3,349	12,721	xxx	xxx
Granite.....	⁸ 433	380	4,569	17,071	xxx	xxx
Slate.....	⁸ 209	162	...	6,438	xxx	xxx
Marble.....	⁸ 33	63	739	5,595	xxx	xxx
Sandstone.....	⁸ 193	195	1,064	4,276	xxx	xxx
Stone, n.e.c.....	⁸ 16	12	37	582	xxx	xxx
Crushed and broken stone, total.....	(NA)	xxx	xxx	xxx	11,168	18,847
Limestone, total.....	(NA)	xxx	xxx	xxx	9,704	16,548
Quarries operated as part of cement plants.....	¹⁰ 59,150	xxx	xxx	xxx	2,479	3,177
Quarries operated as part of lime plants.....	10,839	xxx	xxx	xxx	5,791	11,378
Other quarries ¹¹	(NA)	xxx	xxx	xxx	1,434	1,993
Granite ¹¹	(NA)	xxx	xxx	xxx	265	355
Trap rock ¹¹	(NA)	xxx	xxx	xxx	1,077	1,398
Stone, n.e.c. ¹¹	(NA)	xxx	xxx	xxx	122	546
Common sand and gravel ⁷	9,383	xxx	xxx	xxx	11,464	12,290
Clay, ceramic, and refractory minerals, total.....	29,864	xxx	xxx	xxx	283	324
Fire clay.....	3,957	xxx	xxx	xxx	32	77
Kaolin and ball clay.....	104	xxx	xxx	xxx	...	...
Clay, ceramic, and refractory minerals, n.e.c.....	25,803	xxx	xxx	xxx	251	247
Nonmetallic minerals (except fuels), n.e.c.:						
Gypsum.....	5,610	xxx	xxx	xxx	960	3,688

NA Not available.

xxx Not applicable.

¹For each mineral operation, represents the mineral specified in the stub of this table.²Except for Dimension stone, represents wages of production and development workers only.³For Dimension stone, includes rough stone received for dressing and products purchased for resale without further processing.⁴Represents net shipments which are equal to gross shipments less minerals received for preparation.⁵Represents gross shipments.⁶Represents man-hours worked at dimension-stone operations only. For all other operations, surface man-hours were not reported separately and are included with man-hours for underground or open-pit.⁷Figures for common sand and gravel operations included in manufactures and wholesale trade are shown only in this table and in table 1B of the report MI-14E, Sand and gravel.⁸Represents rough stone blocks for dressing.⁹Not reported separately. See footnote 6.¹⁰Includes 748 thousand tons of calcareous marl and 162 thousand tons of sandstone.¹¹Represents quarries producing and shipping crushed and broken stone but operated as a part of establishments where the primary product is bituminous concrete or ready-mixed concrete.¹²Represents man-hours at sand and gravel preparation plants.¹³Includes man-hours worked at sand and gravel preparation plants.

METAL MINING

10A-1

Metal Mining

This report shows 1954 Census of Mineral Industries statistics for industries included in Major Group 10, Metal Mining, which comprises establishments primarily engaged in producing metal ores, in developing metal mines, or exploring for metal ores. The report consists of four tables which present (1) comparative statistics for all metal mining for Census years from 1860 through 1954; (2) detailed statistics by industry for 1954 and selected comparative statistics by industry for 1954 and 1939; (3) value of shipments and number of employees for all metal mining by State, and number of establishments by industry within State, for 1954; and (4) number of establishments by employment size within industry for 1954. More complete statistics for each industry and a description of the types of establishments classified in each are provided in the following separate reports:

Report	Industries Covered
MI-10B - Iron Ores	1011 - Iron Ores
MI-10D - Copper Ores	1021 - Copper Ores
MI-10E - Lead and Zinc Ores	<ul style="list-style-type: none"> 1032 - Lead Ores 1033 - Zinc Ores 1034 - Lead-Zinc Ores
MI-10F - Gold	<ul style="list-style-type: none"> 1042 - Lode Gold 1043 - Placer Gold
MI-10G - Silver Ores	1044 - Silver Ores
MI-10H - Bauxite	1051 - Bauxite
MI-10I - Ferro-Alloy Ores, Except Vanadium	<ul style="list-style-type: none"> 1062 - Manganese Ores 1063 - Molybdenum Ores 1064 - Tungsten Ores 1069 - Ferro-Alloy Ores, Except Vanadium, N.E.C.
MI-10J - Metal Mining Contract Services	1081 - Metal Mining Contract Services
MI-10K - Miscellaneous Metal Ores	<ul style="list-style-type: none"> 1092 - Mercury Ores 1093 - Titanium Ores 1094 - Uranium-Radium-Vanadium Ores 1099 - Metallic Ores, N.E.C.

A more detailed summary report is also provided for 7 of these industries: MI-10C - Copper, Lead, Zinc, Gold, and Silver Ores.

The kinds of ores covered in this major group are valued chiefly for the metals contained to be recovered for use as such or as constituents of alloys. In addition, ores of rare-earth metals and titanium are included. This major group includes all metal ore dressing and beneficiating operations whether performed at mills operated in conjunction with the mines served or at mills, such as custom mills, operated separately. These include mills which crush, grind, wash, dry, sinter, or leach ore, or perform gravity separation or flotation operations. Magnesite and brucite operations are classified in Industry 1457, and crushed dolomite operations in Industry 1422. Smelters and refineries are classified in the manufacturing industries in Major Group 33, Primary Metal Industries. Establishments producing primary magnesium are classified in the manufacturing industries in Industry 3335. Establishments engaged only in exploration work are classified according to the type of ore expected to be found.

The combined value of shipments of all industries in Major Group 10, excluding the uranium-radium-vanadium ores industry for which value of shipments information was not obtained, amounted to \$1,506 million in 1954. Establishments in the iron ores industry and the copper ores industry accounted for \$547 million and \$509 million, respectively, or slightly more than 70 percent of this total value of shipments. Lead and zinc ores establishments with \$176 million in shipments, and tungsten ores establishments with \$61 million, ranked third and fourth in value of shipments. Some of the value of shipments figures in this report contain duplication since they include the value of metal ores sold or transferred to other establishments in the same industries for preparation. The extent of this duplication for individual industries is discussed in the separate industry reports. For the group as a whole, the value of ores received for preparation was \$169 million. Net shipments in the metal mining industries in 1954, excluding the uranium-radium-vanadium ores industry, amounted to \$1,361 million.

With the exception of the metal mining contract services industry and the uranium-radium-vanadium ores industry, the report forms used by the Bureau of the Census for industries in the metal mining group also provided information required by the Bureau of Mines for its annual statistics on these metals. The Bureau of Mines figures are, in general, comparable with those shown in this report. However, there are some differences between the figures compiled for certain metals by the two agencies. The reasons for these differences for the individual products are discussed in the separate industry reports.

METAL MINING EMPLOYMENT IN THE UNITED STATES: 1860-1954

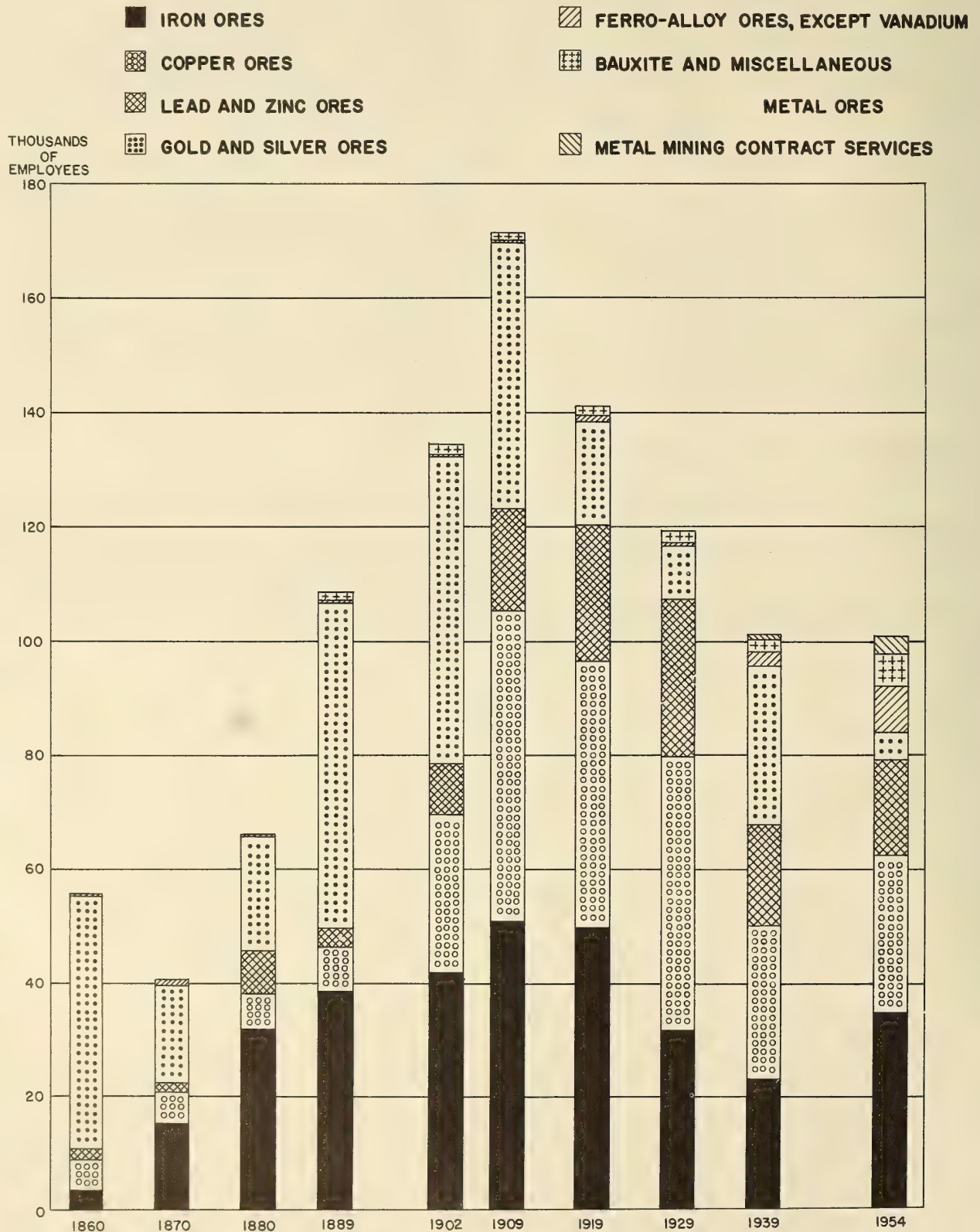


Table 1.—COMPARATIVE STATISTICS FOR THE METAL MINING INDUSTRIES IN THE UNITED STATES: 1954, 1939, 1929, 1919, 1909, 1902, 1889, 1880, 1870, AND 1860
(For explanation of line captions and for statement on the minimum size of establishments included for each year, see INTRODUCTION. For all years prior to 1939, excludes contract service operations)

Item	1954	1939	1929 ¹	1919	1909	1902	1889	1880	1870	1860							
Number of operating companies.....	2,961	1,886	(NA)	(NA)	27,007	27,494	(NA)	(NA)	(NA)	(NA)							
Number of establishments.....	3,496	(NA)	1,799	2,404	7,170	(NA)		(NA)	2,969	7,459							
Number of mines and quarries.....	3,356	2,095	2,007	2,699	14,638	7,730		3,285	(NA)	(NA)							
Number of preparation plants.....	993	693	(NA)	637	(NA)	(NA)		(NA)	(NA)	(NA)							
Value of gross shipments ³.....\$1,000..	41,506,238	(NA)	(NA)	551,270	368,238	(NA)	156,521	(NA)	(NA)	54,554							
Value of net shipments ³.....do....	41,361,035	517,375	633,821	544,661	349,242	215,749		115,135	47,225	(NA)							
Value added in mining.....do....	41,075,519	416,956	496,335	402,098	231,043	167,525		130,126	5103,710	41,183	36,739						
Number of persons engaged, total.....	103,775	101,304	125,890	148,244	179,601	133,838	107,829	65,866	39,907	53,521							
Production and development workers.....	81,896	89,791	115,775	135,916	160,842	123,227	107,829	62,597	39,907	53,521							
All other employees.....	18,354	10,344	9,802	10,703	10,202	10,611		3,269									
Proprietors and firm members.....	3,525	1,169	6313	1,625	8,557	(NA)		(NA)			(NA)	(NA)					
Performing manual labor.....	2,721	824	(NA)	868	3,907	(NA)	(NA)	(NA)	(NA)	(NA)							
Man-hours worked by production and development workers.....1,000..	168,346	190,835	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)							
Principal expenses designated below, total.....\$1,000..	41,038,537	254,338	343,452	382,758	287,166	156,883	89,930	37,642	25,589	44,473							
Wages of production and development workers.....do....	353,303	127,111	178,319	209,199	135,263	96,207	63,535	28,327	19,547	26,658							
Salaries of all other employees.....do....	109,722	26,806	27,647	24,387	14,708	12,452		(NA)	(NA)	(NA)							
Minerals received for preparation.....do....	4168,922	(NA)	(NA)	6,609	18,996	(NA)		(NA)	(NA)	(NA)							
Supplies.....do....	229,913	68,719	93,951	99,380	82,321	45,082	723,025	9,315	6,042	17,815							
Purchased fuel.....do....	26,936	10,400	17,098	25,490	27,380												
Purchased electric energy.....do....	32,662	18,686	18,975	11,769													
Contract work.....do....	117,079	2,616	7,462	5,924	8,498	3,142	73,370	(NA)	(NA)	(NA)							
Purchased machinery installed.....do....	86,891	(NA)	25,391	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)							
Capital expenditures, total.....do....	221,067		(NA)	(NA)													
Development and exploration of mineral property.....do....	64,569		12,924	56,668													
Preparation plant construction.....do....	52,237		5,409	(NA)													
Other construction.....do....	32,076	(NA)									(NA)						
New machinery and equipment.....do....	65,655	14,775															
Used plant and equipment.....do....	6,530	3,342															
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....1,000..	5,113	2,264	1,736	1,379	1,141	559	171	73	22	(NA)							
Per production worker.....do....	62	25	15	10	7	5	1	1	(⁸)	(NA)							
Prime movers.....1,000..	2,823	866	768	869	987	539	171	73	22	(NA)							
Electric motors driven by purchased energy.....do....	2,290	1,398	968	510	154	20											
Horsepower rating of electric motors driven by energy generated at establishment.....do....	688	299	371	276	81	37											
Energy used.....million kwh equivalent..	21,087	14,676	624,721	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)							
Coal.....1,000 short tons..	741	966	2,274	3,765													
Fuel oils.....1,000 barrels..	2,014	1,109	62,392	1,578													
Gas.....million cu.ft..	24,889	8,784	61,408	1,812													
Electric energy purchased.....million kwh..	3,184	2,306	1,965	(NA)													
Electric energy generated and used.....do....	1,527	616	1,007	(NA)													

NA Not available.

¹Except for number of establishments includes data for 27 nonproducing establishments in the Nonmetallic minerals (except fuels) mining industries.

²Represents the sum of the number of operating companies in individual industries or available groups of industries. Probably includes some duplication due to the same company operating in more than one industry.

³The gross value of shipments contains duplication due to the transfer of crude ores from one establishment to another for preparation. The figures for net shipments exclude this duplication.

⁴Excludes figures for the Uranium-radium-vanadium ores industry.

⁵Includes an estimated value added for the placer gold industry.

⁶Excludes data for nonproducing establishments.

⁷Excludes data for the Manganese ores industry.

⁸Less than one-half of the unit of measure specified.

Table 2.—DETAILED STATISTICS FOR THE METAL MINING

(For explanation of line captions and size of

	Item	Metal mining industries, total	Iron ores	Copper ores	Lead and zinc ores	
					Ores valued chiefly for lead	Ores valued chiefly for zinc
1	Number of operating companies.....	2,961	94	179	302	118
2	Number of establishments.....	3,496	225	210	343	177
3	Number of mines:					
4	1954.....	3,356	298	201	332	159
5	1939.....	² 2,095	196	51	86	174
6	Number of preparation plants.....	993	123	48	78	63
7	Value of gross shipments ¹.....\$1,000..	² 1,506,238	547,218	508,729	94,874	81,073
8	Value of net shipments: ¹					
9	1954.....do....	² 1,361,035	539,160	409,911	77,201	62,931
10	1939.....do....	517,375	150,871	141,634	31,467	31,184
11	Value added in mining.....do....	² 1,075,519	435,668	334,876	62,713	44,696
12	Number of persons engaged, total.....	103,775	34,243	27,997	9,038	7,978
13	Production and development workers.....	81,896	28,216	21,544	7,156	6,436
14	All other employees.....	18,354	5,954	6,269	1,564	1,410
15	Proprietors and firm members.....	3,525	73	184	318	132
16	Performing manual labor.....	2,721	46	145	257	86
17	Man-hours worked by production and development workers, total:					
18	1954.....do....	168,346	53,288	46,676	14,654	12,900
19	1939.....do....	² 190,835	38,513	51,239	14,194	18,287
20	At mines, total.....do....	137,643	46,001	36,219	12,790	10,183
21	Underground.....do....	68,254	19,956	13,880	10,273	8,084
22	Open-pit.....do....	30,323	12,671	11,174	101	38
23	Surface (mine shops, yards, etc.).....do....	39,066	13,374	11,165	2,416	2,061
24	At preparation plants.....do....	30,703	7,287	10,457	1,864	2,717
25	Man-hours spent on development and exploration work (included above).....do....	20,693	8,419	5,173	954	544
26	Value added per man-hour.....dollars..	6.39	8.18	7.17	4.28	3.46
27	Principal expenses designated below, total.....\$1,000..	² 1,038,537	316,443	368,307	73,445	72,034
28	Wages of production and development workers.....do....	353,303	119,688	98,491	29,549	24,127
29	Salaries of all other employees.....do....	109,722	37,221	37,574	9,453	8,234
30	Minerals received for preparation.....do....	² 168,922	12,837	100,693	14,197	20,919
31	Supplies.....do....	229,913	75,866	72,822	12,790	11,883
32	Purchased fuel.....do....	26,936	9,549	8,576	600	809
33	Purchased electric energy.....do....	32,662	13,767	6,278	4,027	2,811
34	Contract work.....do....	117,079	47,515	43,873	2,829	3,251
35	Purchased machinery installed.....do....	86,891	36,994	23,821	2,878	3,064
36	Capital expenditures, total.....do....	221,067	84,978	82,210	5,160	6,360
37	Development and exploration of mineral property.....do....	64,569	23,515	23,750	3,229	3,280
38	Preparation plant construction.....do....	52,237	28,049	13,477	191	949
39	Other construction.....do....	32,076	4,741	21,788	538	376
40	New machinery and equipment.....do....	65,655	27,955	21,955	925	1,584
41	Used plant and equipment.....do....	6,530	718	1,240	277	171
42	Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....do....	5,113	1,795	1,545	423	326
43	Per production worker.....do....	62	64	72	59	51
44	Prime movers.....do....	2,823	950	1,031	94	75
45	Electric motors driven by purchased energy.....do....	2,290	845	514	329	251
46	Horsepower rating of electric motors driven by energy generated at establishment.....do....	688	179	400	23	8
47	Energy used.....million kwh equivalent..	21,087	5,928	9,255	749	892
48	Coal.....do....	741	376	179	13	37
49	Fuel oil.....do....	2,014	852	301	35	48
50	Gas.....do....	24,889	1,319	20,559	273	649
51	Electric energy purchased.....million kwh..	3,184	984	815	456	303
52	Electric energy generated and used.....do....	1,527	187	1,194	27	8
53	Water intake, including mine water used.....million gallons..	137,781	26,855	59,112	11,015	11,134
54	Per production worker.....do....	1.68	0.95	2.74	1.54	1.73

NA Not available.

xxx Not applicable.

D Withheld to avoid approximately disclosing figures of individual companies.

¹See table 1, footnote 3.²Excludes figures for the uranium-radium-vanadium ores industry. Data were not obtained in the 1954 Census of Mineral Industries on the value of shipments and cost of ores received for milling for establishments in this industry.³Represents amount received or due for services.⁴Somewhat different detail was reported for man-hours of contractors. The figure shown under "Open-pit" represents 1,639 thousand man-hours for stripping overburden and 1,101 thousand for mining minerals for others; that shown for "Surface" represents 234 thousand for exploration work and 3,545 thousand for other work.

INDUSTRIES IN THE UNITED STATES, BY INDUSTRY, 1954 AND SELECTED COMPARATIVE STATISTICS, 1954 AND 1939

establishments included for each year, see INTRODUCTION)

Gold and silver ores			Bauxite	Ferro-alloy ores, except vanadium			Metal mining contract services	Miscellaneous metal ores				
Lode gold	Placer gold	Silver ores		Manganese ores	Tungsten ores	Molybdenum ores and Ferro-alloy ores, except vanadium, n.e.c.		Mercury ores	Titanium ores	Uranium-radium-vanadium ores	Metallic ores, n.e.c.	
286	131	98	12	319	500	155	114	81	7	572	44	1
298	136	101	25	367	549	170	114	87	10	637	47	2
291	136	101	20	360	524	158	xxx	87	8	636	45	3
872	340	166	14	36	53	17	xxx	69	3	8	1	4
135	116	24	9	63	171	63	xxx	75	8	8	9	5
28,517	5,916	12,148	16,819	32,398	60,737	60,536	³ 38,679	4,519	12,750	(NA)	1,325	6
26,892	5,916	12,051	16,029	(NA)	(NA)	(NA)	³ 38,679	(D)	(D)	(NA)	(NA)	7
86,064	28,027	19,716	2,527	945	3,354	15,458	2,368	1,830	458	1,472	...	8
21,884	3,614	9,856	12,827	18,118	40,744	48,537	26,703	3,355	11,134	(NA)	794	9
3,300	729	1,341	854	3,062	3,701	2,730	3,141	578	844	4,081	158	10
2,634	501	1,065	661	2,266	2,635	1,937	2,863	372	568	2,944	98	11
386	55	190	191	338	352	550	196	81	275	523	20	12
280	173	86	2	458	714	243	82	125	1	614	40	13
223	145	66	...	386	634	194	55	110	1	339	34	14
5,894	1,255	2,214	1,288	4,293	6,327	4,502	6,519	841	1,261	6,227	207	15
41,522	8,088	9,055	1,176	¹⁰ 959	1,639	¹⁰ 2,088	1,344	1,421	322	879	(NA)	16
5,120	1,212	2,005	1,074	2,973	4,825	2,983	⁴ 6,519	706	730	4,119	184	17
3,271	21	1,627	281	1,677	3,683	2,122	(⁴)	572	...	2,764	43	18
115	⁵ 907	25	210	894	451	139	⁴ 2,740	30	208	562	58	19
1,734	284	353	583	402	691	722	⁴ 3,779	104	¹⁰ 522	793	¹⁰ 83	20
774	43	209	214	1,320	1,502	1,519	(⁴)	135	531	2,108	23	21
884	71	246	10	260	651	119	1,873	73	39	1,329	48	22
3.71	2.88	4.45	9.96	4.22	6.44	10.78	4.10	3.99	8.83	(NA)	(⁶)	23
20,169	4,815	8,950	7,527	24,532	37,515	29,804	27,595	3,425	8,027	⁷ 34,642	1,307	24
10,406	1,997	5,003	2,529	7,643	13,148	10,539	13,933	1,607	2,397	11,908	338	25
1,863	314	1,035	1,052	1,649	1,610	3,946	1,335	365	1,302	2,660	109	26
1,274	xxx	5	1,181	5,382	10,891	461	xxx	} 1,160	2,801	(NA)	} 655	27
5,017	1,554	2,167	789	5,087	8,295	9,853	10,412			9,844		28
569	248	105	239	721	933	357	1,273	204	449	2,263	41	29
720	661	271	134	477	753	1,289	133	61	743	505	32	30
320	41	364	1,603	3,573	1,885	3,359	509	28	335	7,462	132	31
910	302	446	356	2,304	3,562	2,609	2,049	226	1,286	5,336	748	32
2,177	504	1,066	310	3,264	6,326	5,929	2,400	515	3,998	14,793	1,077	33
1,037	180	587	24	607	2,168	410	xxx	167	...	5,494	121	34
370	34	145	...	546	885	1,672	xxx	140	2,544	3,052	183	35
194	18	19	11	162	382	1,662	523	36	360	1,237	29	36
386	121	204	271	1,366	2,224	1,987	1,522	116	1,092	3,842	105	37
190	151	111	4	583	667	198	355	56	2	1,168	639	38
112	64	36	49	106	156	107	152	12	46	165	19	39
42	128	34	74	47	59	55	53	31	81	56	(⁶)	40
64	29	17	31	65	106	34	138	9	20	150	10	41
48	35	19	18	41	50	73	14	3	26	15	9	42
50	4	1	...	2	9	2	4	1	(⁸)	5	(⁸)	43
639	170	81	170	477	371	280	358	78	361	1,266	12	44
62	...	1	...	1	...	2	1	...	31	38	...	45
24	46	11	15	76	124	30	115	⁸ 28	28	268	3	46
68	...	...	370	633	46	4	14	9	1	944	...	47
63	79	43	9	79	61	167	7	5	73	37	3	48
62	10	1	...	2	20	1	6	1	...	8	...	49
4,277	10,752	2,291	179	2,834	3,380	1,447	99	12	2,793	1,601	...	50
1.62	21.46	2.15	0.27	1.25	1.28	0.75	0.03	0.03	4.92	0.54	...	51

⁵Includes man-hours on floating equipment.⁶Not computed since the number of proprietors and firm members performing manual labor exceeds one-third of the number of production and development workers.⁷Excludes the cost of minerals received from other establishments for milling.⁸Less than 500 horsepower.⁹Includes data for 9 mines which were not classified by industry.¹⁰Includes man-hours worked on dredges amounting to 109 thousand man-hours for the titanium ores and metallic ores, n.e.c., industries combined.

MINERAL INDUSTRIES--INDUSTRY STATISTICS

Table 3.—NUMBER OF ESTABLISHMENTS IN THE METAL MINING INDUSTRIES, BY STATE AND INDUSTRY,

	Geographic division and State	All metal mining industries			Number of establishments, by industry		
		Number of establishments	Value of gross shipments (\$1,000)	Number of employees	Iron ores	Copper ores	Lead and zinc ores
1	United States, total.....	3,496	¹ 1,506,238	100,250	225	210	520
2	New England.....	6	2,387	² 269	...	1	2
3	Maine.....	1	(D)	(D)	...	...	...
4	New Hampshire.....	1	(D)	(D)	...	...	1
5	Vermont.....	3	2,305	210	...	1	1
6	Connecticut.....	2	(D)	(D)	...	...	...
7	Middle Atlantic.....	31	72,753	7,417	12	...	7
8	New York.....	11	42,568	4,119	5	...	3
9	New Jersey.....	13	11,951	1,711	5	...	3
10	Pennsylvania.....	7	18,234	1,587	2	...	1
11	East North Central.....	83	111,764	³ 12,520	45	8	23
12	Illinois.....	13	3,111	111	...	...	10
13	Michigan.....	54	95,217	10,618	42	8	...
14	Wisconsin.....	16	13,436	1,418	3	...	13
15	West North Central.....	196	383,413	21,358	95	...	40
16	Minnesota.....	96	327,982	15,489	88	...	...
17	Missouri.....	24	32,851	3,668	7	...	11
18	North Dakota.....	1	...	1	...	...	...
19	South Dakota.....	43	19,268	1,819	...	...	...
20	Kansas.....	32	3,312	381	...	...	29
21	South Atlantic.....	59	21,051	2,085	11	2	6
22	Maryland.....	1	...	...	...	...	1
23	Virginia.....	19	5,764	954	...	...	4
24	North Carolina.....	10	9,606	526	...	1	1
25	South Carolina.....	1	(D)	(D)	...	...	...
26	Georgia.....	20	1,645	150	11	...	...
27	Florida.....	7	(D)	(D)	...	...	...
28	East South Central.....	58	52,454	4,800	34	...	10
29	Kentucky.....	1	...	...	...	...	1
30	Tennessee.....	21	5,874	918	2	...	9
31	Alabama.....	36	46,580	3,882	32	...	...
32	West South Central.....	131	40,370	2,584	6	1	76
33	Arkansas.....	43	(D)	(D)	1	...	2
34	Oklahoma.....	77	(D)	(D)	...	...	73
35	Texas.....	11	(D)	(D)	5	1	1
36	Mountain.....	2,133	764,811	45,403	20	169	321
37	Montana.....	158	86,253	7,535	1	8	47
38	Idaho.....	169	42,936	4,190	...	8	77
39	Wyoming.....	21	(D)	(D)	2	1	...
40	Colorado.....	490	(D)	(D)	1	2	68
41	New Mexico.....	156	(D)	(D)	2	17	14
42	Arizona.....	435	213,055	12,693	...	89	41
43	Utah.....	351	(D)	(D)	7	17	37
44	Nevada.....	353	90,879	4,505	7	27	37
45	Pacific.....	799	57,235	3,814	2	29	35
46	Washington.....	49	8,845	787	...	8	18
47	Oregon.....	89	(D)	(D)	...	3	...
48	California.....	661	(D)	(D)	2	18	17

D Withheld to avoid approximately disclosing figures for individual companies.

¹Excludes figures for the Uranium-radium-vanadium ores industry.²Includes central administrative office employees in Massachusetts where no metal-mining establishments are located.³Includes central administrative office employees in Ohio where no metal-mining establishments are located.

AND VALUE OF SHIPMENTS AND NUMBER OF EMPLOYEES, BY STATE: 1954

Number of establishments, by industry—Continued												
Gold and silver ores			Bauxite	Ferro-alloy ores, except vanadium			Metal mining contract services	Miscellaneous metal ores				
Lode gold	Placer gold	Silver ores		Manganese ores	Tungsten ores	Molybdenum ores and Ferro-alloy ores, except vanadium, n.e.c.		Mercury ores	Titanium ores	Uranium-radium-vanadium ores	Metallic ores, n.e.c.	
298	136	101	25	367	549	170	114	87	10	637	47	1
...	...	...	...	...	...	...	...	...	...	...	3	2
...	...	...	...	...	...	...	...	...	...	...	1	3
...	...	...	...	...	...	...	...	...	...	...	...	4
...	...	...	...	...	...	...	...	...	...	...	...	5
...	...	...	...	...	...	...	...	...	...	...	2	6
...	...	...	...	1	...	...	7	...	2	1	1	7
...	...	...	...	...	...	...	1	...	1	...	1	8
...	...	...	...	...	...	...	4	...	...	1	...	9
...	...	...	...	1	...	...	2	...	1	...	...	10
...	...	...	...	...	...	...	7	...	...	...	...	11
...	...	...	...	...	...	...	3	...	...	...	...	12
...	...	...	...	...	...	...	4	...	...	...	...	13
...	...	...	...	...	...	...	...	...	...	...	...	14
6	...	...	...	1	...	2	16	...	...	17	19	15
...	...	...	...	...	...	1	7	...	...	...	...	16
...	...	...	...	1	...	...	4	...	...	1	...	17
...	...	...	...	...	...	...	...	...	...	1	...	18
6	...	...	...	...	...	1	2	...	...	15	19	19
...	...	...	...	...	...	...	3	...	...	...	...	20
3	...	...	5	13	3	...	3	...	7	4	2	21
...	...	...	...	...	...	...	...	...	...	...	...	22
...	...	...	...	12	...	...	2	...	1	...	...	23
2	...	...	...	...	3	...	...	...	...	3	...	24
...	...	...	...	...	...	...	...	...	...	...	1	25
1	...	...	5	1	...	...	1	...	...	...	1	26
...	...	...	...	...	...	...	...	...	6	1	...	27
...	...	...	2	9	...	...	2	...	...	1	...	28
...	...	...	...	...	...	...	...	...	...	...	...	29
...	...	...	...	9	...	...	1	...	...	...	...	30
...	...	...	2	...	...	...	1	...	...	1	...	31
...	...	1	17	19	...	...	9	...	...	2	...	32
...	...	...	17	19	...	...	3	...	...	1	...	33
...	...	...	...	...	...	...	3	...	...	1	...	34
...	...	1	...	...	...	...	3	...	...	...	...	35
175	47	95	...	257	331	8	62	31	...	597	20	36
27	5	14	...	31	15	1	3	...	...	6	...	37
22	15	19	...	2	12	2	2	2	...	2	6	38
2	1	1	...	...	...	...	1	...	...	13	...	39
54	13	12	...	1	58	2	20	...	...	254	5	40
2	2	4	...	54	2	3	11	...	...	39	6	41
30	2	15	...	141	55	...	4	2	...	55	1	42
9	...	11	...	11	21	...	17	...	...	221	...	43
29	9	19	...	17	168	...	4	27	...	7	2	44
114	89	5	1	67	215	160	8	56	1	15	2	45
7	3	3	...	1	5	1	...	1	...	2	...	46
14	13	...	1	...	...	43	1	13	...	...	1	47
93	73	2	...	66	210	116	7	42	1	13	1	48

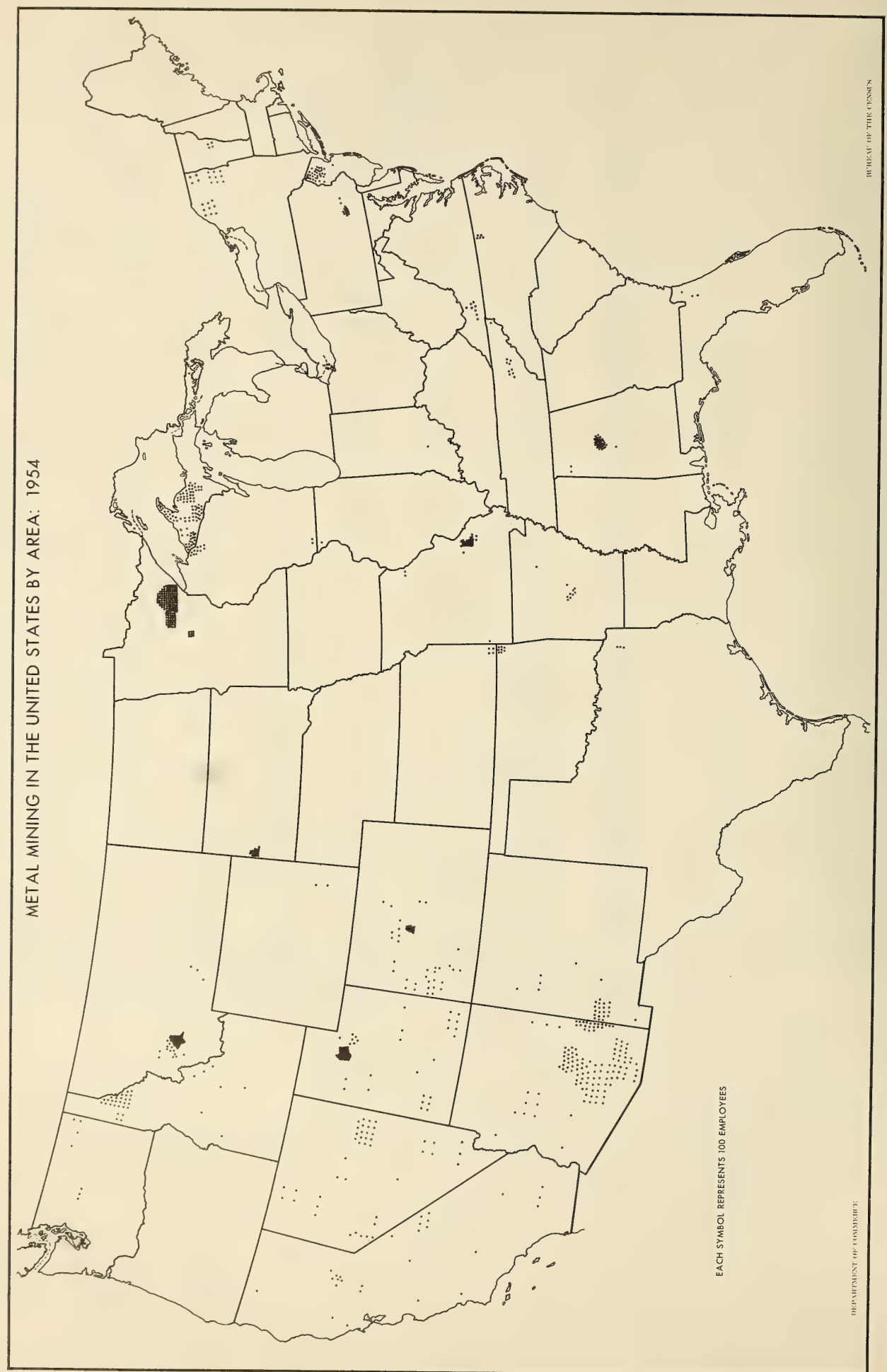


Table 4.—NUMBER OF METAL MINING ESTABLISHMENTS IN THE UNITED STATES CLASSIFIED BY EMPLOYMENT SIZE, BY INDUSTRY: 1954

Industry group, industry, and subindustry	Number of establishments, total	Establishments with an average of—										
		No em- ployees	1-4 em- ployees	5-9 em- ployees	10-19 em- ployees	20-49 em- ployees	50-99 em- ployees	100-249 em- ployees	250-499 em- ployees	500-999 em- ployees	1,000-2,499 em- ployees	2,500 employees and over
Metal mining, total.....	3,496	1,483	1,146	296	162	154	71	99	47	17	18	3
Iron ores.....	225	16	28	21	25	25	29	48	23	4	5	1
Copper ores.....	210	86	59	16	8	9	2	7	6	6	10	1
Lead and zinc ores:												
Valued chiefly for lead.....	343	143	113	27	19	18	11	6	3	2	...	1
Valued chiefly for zinc.....	177	49	45	14	20	29	4	7	7	1	1	...
Gold and silver ores:												
Lode gold.....	298	139	119	20	6	5	5	3	...	...	1	...
Placer gold.....	136	91	36	4	1	2	...	2	...	...	...	...
Silver ores.....	101	45	34	12	7	...	...	2	...	1	...	...
Bauxite.....	25	1	8	4	6	4	...	...	2	...	...	...
Ferro-alloy ores, except vanadium:												
Manganese ores.....	367	218	82	28	15	14	5	4	...	1	...	...
Molybdenum ores.....	3	1	...	...	...	1	...	...	...	...	1	...
Tungsten ores.....	549	360	125	31	13	9	4	5	1	1	...	...
Ferro-alloy ores, except vanadium, n.e.c.:												
Chromium ores.....	158	98	47	7	4	1	...	...	1	...	...	...
Cobalt ores.....	1	...	...	...	...	...	...	...	1	...	...	...
Nickel ores.....	3	1	...	...	1	1	...	...	...	...	...	...
Columbium ores.....	5	1	3	...	...	1	...	...	...	...	...	...
Metal mining contract services.....	114	6	59	13	10	14	5	6	...	1	...	...
Miscellaneous metal ores:												
Mercury ores.....	87	55	20	4	3	2	2	1	...	...	...	...
Titanium ores.....	10	1	...	...	3	2	...	3	1	...	...	...
Uranium-radium-vanadium ores.....	637	147	355	90	19	15	4	5	2	...	...	...
Metallic ores, n.e.c.....	47	25	13	5	2	2	...	...	...	...	...	...

Iron Ores

This report shows 1954 Census of Mineral Industries statistics for establishments classified in Industry 1011, Iron Ores. Industry 1011 comprises establishments primarily engaged in mining, beneficiating, or otherwise preparing iron ores, such as hematite, limonite (brown ore), magnetite, and siderite (carbonate), and manganiferous ores valued chiefly for their iron content. The industry includes the production of sinter and other agglomerates in association with mining and beneficiating activities. Blast furnaces primarily engaged in producing pig iron from iron ore are classified as manufacturing plants in Industry 3311, Blast Furnaces. The production of sinter and other agglomerates in conjunction with blast furnace operations is also classified as manufacturing.

The iron ores industry was similarly defined in 1939, the year covered by the preceding Census of Mineral Industries. However, the 1939 Census differs to some extent in the classification and method of reporting for specific establishments. For example, to a greater extent in 1954 than in 1939, consolidated reports were filed covering several mines in a county, in instances where such mines were serviced by common machine shops or other auxiliary units. This factor affects the comparability of some of the statistics for the two years, such as the classification of mines by employment size and by type of operation.

The total value of shipments of the iron ores industry in 1954 amounted to \$547 million, including shipments valued at \$8 million of iron ores to plants within the iron ores industry for beneficiation or agglomeration. Net shipments from the industry totaled \$539 million, of which approximately \$316 million represented direct-shipping iron ores. Shipments of iron concentrates and agglomerates accounted for more than 95 percent of the balance. Establishments in the iron ores industry accounted for more than 98 percent of the total of approximately 78 million long tons of usable iron ore produced in all mineral industries.

The report form used for the iron ores industry by the Bureau of the Census also provided information required by the Bureau of Mines for its annual statistics on iron ore. The Bureau of Mines statistics are, in general, comparable with those

shown in this report. However, some differences occur in the statistics on products arising principally from the difference in methods followed and objectives sought by these two bureaus in compiling and presenting the statistics. The reasons for such differences, to the extent that they pertain to statistics for the iron ores industry, are summarized below:

1. The Bureau of the Census includes in its statistics on iron ores figures for manganiferous ores valued chiefly for their iron content. Separate figures on manganiferous ores are also, to a limited extent, published by the Bureau of the Census. The Bureau of Mines excludes manganiferous ores from its statistics on iron ores but, in its report on manganese ores, publishes separate figures on manganiferous iron ores containing 5 to 10 percent manganese.

2. The statistics shown in this report on crude iron ore mined exclude figures for iron ore mined by establishments classified in other industries, which amount to less than two percent of the United States total. The statistics on crude iron ore mined published by the Bureau of Mines include figures for all mines regardless of industry classification.

3. A small quantity of iron tailings recovered has been included in the statistics on crude ore mined, as shown by the Bureau of Mines, but has been excluded by the Bureau of the Census.

4. The Bureau of the Census has included in its statistics on agglomerates figures covering a small quantity of imported ores agglomerated at plants within the iron ores industry. Such figures are excluded from the Bureau of Mines statistics on United States sinter production.

5. The statistics on sinter published in this report exclude figures for sinter produced in conjunction with blast furnace operations and as a by-product of the manufacture of sulfuric acid from iron pyrites. Separate figures on sinter produced from such sources are published by the Bureau of Mines in its report on iron ores.

Table 1.—COMPARATIVE STATISTICS FOR THE IRON ORES INDUSTRY IN THE UNITED STATES:

(For explanation of line captions and for statement on the minimum size

Item		1954	1939	1935	1929
1	Number of operating companies.....	94	¹ 116	(NA)	(NA)
2	Number of establishments.....	225	(NA)	(NA)	186
3	Number of mines.....	298	196	199	214
4	Number of beneficiating and agglomeration plants.....	123	44	(NA)	(NA)
5	Crude iron ore mined ².....1,000 long tons..	107,358	59,669	(NA)	(NA)
6	Crude iron ore beneficiated or agglomerated ².....do...	58,623	16,924	(NA)	(NA)
7	Usable iron ore produced ².....do...	78,222	51,644	31,008	73,962
8	Value of shipments, total ⁵.....\$1,000..	547,218	(NA)	(NA)	(NA)
9	Beneficiating-grade and agglomeration-grade iron ores ².....do...	⁶ 8,058	(NA)	(NA)	(NA)
10	Value of net shipments ⁵.....do...	539,160	150,871	76,733	197,335
11	Value added in mining.....\$1,000..	435,668	133,390	65,861	167,127
12	Number of persons engaged, total.....	34,243	22,683	16,240	31,122
13	Production and development workers.....	28,216	20,377	14,873	28,623
14	All other employees.....	5,954	2,274	⁹ 1,367	2,490
15	Proprietors and firm members.....	73	32	(NA)	9
16	Performing manual labor.....	46	14	(NA)	(NA)
17	Man-hours worked by production and development workers, total....1,000..	53,288	38,513	}	(NA)
18	At mines, total.....do...	46,001	¹⁰ 33,739		
19	Underground.....do...	19,956	¹⁰ 19,758		
20	Open-pit.....do...	12,671	¹⁰ 6,043		
21	Surface (including mine shops and yards).....do...	13,374	¹⁰ 7,892		
22	At beneficiating or agglomeration plants.....do...	7,287	¹⁰ 2,492		
23	Principal expenses designated below, total.....\$1,000..	316,443	¹¹ 50,807	¹¹ 28,516	¹¹ 77,642
24	Wages of production and development workers.....do...	119,688	27,431	14,624	41,049
25	Salaries of all other employees.....do...	37,221	5,895	⁹ 3,020	6,385
26	Iron-bearing materials received for beneficiation or agglomeration.....do...	12,837	(NA)	(NA)	(NA)
27	Supplies.....do...	75,866	10,791	6,647	18,717
28	Fuel.....do...	9,549	2,280	1,599	5,332
29	Purchased electric energy.....do...	13,767	4,174	2,626	4,607
30	Contract work.....do...	47,515	236	(NA)	1,552
31	Purchased machinery installed.....do...	36,994	(NA)	}	4,016
32	Capital expenditures, total.....do...	84,978	(NA)		(NA)
33	Development and exploration of mineral property.....do...	23,515	(NA)		10,223
34	Beneficiating and agglomeration plant construction.....do...	28,049	784		(NA)
35	Other construction.....do...	4,741			
36	New machinery and equipment.....do...	27,955	3,550		
37	Used plant and equipment.....do...	718	210		
38	Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	1,795,203	600,479	}	500,641
39	Per production worker.....	64	29		17
40	Prime movers.....	950,121	212,851		222,259
41	Electric motors driven by purchased energy.....	845,082	387,628		278,382
42	Horsepower rating of electric motors driven by energy generated and used at the establishment.....	178,556	26,027		40,688
43	Energy used.....million kwh equivalent..	5,928	3,246		7,763
44	Coal.....1,000 short tons..	376	365		864
45	Fuel oil.....1,000 barrels..	852	43		55
46	Gas.....million cu. ft..	1,319	...		2
47	Electric energy purchased.....million kwh..	984	352		376
48	Electric energy generated and used.....do...	187	23		100

NA Not available.

¹May contain some duplication. In 1939, there were 100 companies operating producing mines and 16 companies operating nonproducing mines; in 1902, similarly, 332 companies operated producing mines and 33, nonproducing mines. Information is not available to eliminate any duplication in the number of operating companies arising from a combination of the figures for producing and nonproducing mines.

²Includes manganese iron ore valued chiefly for its iron content, representing less than one percent of the total usable ore in 1954 and less than two percent of the total usable ore in 1939.

³Represents crude ores concentrated and natural fines agglomerated.

⁴Represents direct-shipping ores, concentrates, and sinter and other agglomerates. Figure for 1954 includes production by establishments in industries other than the iron ores industry, amounting to less than two percent of the total shown.

⁵The total value of shipments for 1954 contains duplication since it includes the value of beneficiating-grade ores shipped as well as the value of concentrates and agglomerates produced from such ores. The net value of shipments excludes this duplication. Figures for 1939 and earlier years represent production. Figures for 1902 and earlier years exclude the value of secondary products and services.

1954, 1939, 1935, 1929, 1919, 1909, 1902, 1889, 1880, 1870, 1860, AND 1850
of establishments included for each year, see INTRODUCTION)

1919	1909	1902	1889	1880	1870	1860	1850		
(NA)	191	¹ 365	(NA)	(NA)	(NA)	(NA)	(NA)	1	
308	(NA)	(NA)	(NA)	805	420	157	197	2	
424	504	562	685	(NA)	(NA)	(NA)	(NA)	3	
74	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	4	
(NA)	51,947	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	5	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	6	
61,172	51,718	35,567	14,518	7,120	3,396	908	(NA)	7	
218,218	109,881	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	8	
...	...	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	9	
218,218	109,881	65,465	33,352	23,157	13,204	2,183	1,218	10	
177,402	89,567	55,675	26,775	20,263	11,924	1,933	1,154	11	
49,417	50,695	41,551	38,227	31,668	15,022	3,177	2,195	12	
46,339	47,698	⁷ 39,118	⁸ 36,341	⁸ 30,415	15,022	3,177	2,195	13	
3,037	2,916	2,433	1,886	1,253				14	
41	81							15	
9	26							16	
								17	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	18	
								19	
								20	
								21	
								22	
124,558	53,786	¹¹ 33,612	¹¹ 20,986	¹¹ 12,432	¹¹ 8,118	¹¹ 1,152	¹¹ 655	23	
76,698	30,048	21,688	12,983	9,538	6,838	902	591	24	
7,044	3,424	2,134	1,426					25	
...	...	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	26	
27,841	12,835	9,149	4,999	2,894	{ }	1,280	250	27	
8,871	4,716							64	28
1,634									29
2,470									30
(NA)		641	1,578	(NA)	(NA)	(NA)	(NA)	31	
(NA)								32	
17,360	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	33	
(NA)								34	
								35	
								36	
								37	
381,044	350,005	119,558	57,976	28,422	8,927	(NA)	(NA)	38	
8	7	¹² 3	¹² 2	¹³ 1	1			39	
279,712	345,540	119,418	57,976	28,422	8,927			40	
101,332	4,465	140	(NA)	(NA)	41
68,345	22,842	937	(NA)	(NA)	...	...	...	42
(NA)								43	
1,610								44	
4	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	45	
89								46	
(NA)								47	
(NA)								48	

⁶Includes the value of natural fines shipped for agglomeration at plants within the iron ores industry.

⁷Figures for average number employed were reduced to a 300-day basis for establishments which operated for a shorter period.

⁸Represents the average number employed during the time the mines were active.

⁹Excludes figures for employees at central offices maintained independently of mine offices.

¹⁰Excludes man-hours worked on inactive days. Figures for man-hours on inactive days, amounting to 2,283,000 are not available by departments.

For mine departments, also excluded are man-hours for nonproducing operations, amounting to 45,000, which are not available by mine department.

¹¹Excludes the cost of minerals received from other establishments for beneficiation and, for 1880 and earlier years, the cost of contract work.

¹²See footnote 7 above for limitations on production worker figures used.

¹³See footnote 8 above for limitations on production worker figures used.

Table 2.—COMPARATIVE STATISTICS FOR THE IRON ORES INDUSTRY, BY
(For explanation of column captions, see INTRODUCTION. Statistics for 1939 and earlier years exclude nonproducing

	Geographic division, State, and year	Number of mines	Usable iron ore produced ¹ (1,000 long tons)	Value of shipments ² (\$1,000)	Number of employees	
					Production and development workers	All other employees
	United States, total					
1	1954.....	298	78,222	547,218	28,216	5,954
2	1939.....	196	51,644	150,871	20,377	2,274
3	1929.....	214	73,962	197,335	28,623	42,490
4	1919.....	424	61,172	218,218	46,339	3,037
	Middle Atlantic, total					
5	1954.....	13	4,088	47,422	3,437	466
6	1939.....	12	2,355	10,376	(NA)	(NA)
7	1929.....	14	2,198	9,231	2,015	141
8	1919 ³	21	1,915	8,636	3,160	214
	New Jersey					
9	1954.....	5	508	6,740	797	90
10	1939.....	4	(NA)	2,932	609	51
11	1929.....	4	281	1,161	361	45
	Other States ⁶					
12	1954.....	8	3,580	40,682	2,640	376
13	1939.....	8	(NA)	7,444	(NA)	(NA)
14	1929.....	10	1,917	8,070	1,654	96
	North Central, total					
15	1954.....	212	61,662	410,957	20,241	4,786
16	1939 ⁷	124	41,331	125,706	11,981	1,676
17	1929 ⁸	145	63,671	172,924	19,920	1,629
18	1919 ⁸	259	52,731	193,111	33,816	2,266
	Michigan					
19	1954.....	43	10,765	71,697	6,514	1,429
20	1939.....	48	9,167	29,456	5,877	506
21	1929.....	57	15,238	43,195	8,894	513
22	1919.....	100	15,410	60,907	16,160	1,007
	Minnesota					
23	1954.....	159	49,231	327,169	12,520	2,878
24	1939.....	76	32,164	96,250	6,104	1,170
25	1929.....	85	46,815	125,334	10,078	1,054
26	1919.....	151	36,258	128,377	16,511	1,211
	Other States ⁹					
27	1954.....	10	1,666	12,091	1,207	479
28	1929 ⁸	3	1,618	4,395	948	62
29	1919 ⁸	8	1,063	3,827	1,145	48
	South, total					
30	1954.....	51	7,479	53,533	3,779	504
31	1939 ¹⁰	40	6,020	10,203	(NA)	(NA)
32	1929 ⁸	36	6,796	13,006	5,898	370
33	1919 ⁸	120	5,845	15,128	8,512	505
	Alabama					
34	1954.....	32	6,318	46,204	3,370	470
35	1939.....	32	5,956	10,024	4,820	239
36	1929.....	18	6,424	11,778	5,336	338
37	1919.....	48	5,053	12,292	6,485	390
	Other States ¹¹					
38	1954.....	19	1,161	7,329	409	34
39	1939 ¹⁰	8	64	179	(NA)	(NA)
40	1929 ⁸	18	372	1,228	562	32
41	1919 ⁸	72	792	2,836	2,027	115
	West ¹²					
42	1954.....	22	4,993	35,306	759	198
43	1939 ^{7 10}	17	1,938	4,586	(NA)	(NA)
44	1929.....	13	1,297	2,174	683	42
45	1919.....	16	681	1,343	528	27

NA Not available.

¹See table 1, footnotes 2 and 4.

²Represents value of net shipments for 1939 and 1929. See table 1, footnote 5.

³The cost of minerals received for beneficiation, if any, is excluded for 1939 and 1929. No such receipts were reported for 1919.

⁴Includes figures for employees at central offices, which are not available by State.

⁵Also includes statistics for Connecticut and Massachusetts.

⁶New York and Pennsylvania.

⁷Statistics for North Central exclude Wisconsin and Missouri. Figures for these States are included with statistics for the West.

GEOGRAPHIC DIVISIONS AND STATES: 1954, 1939, 1929, and 1919

operations except for the United States totals for all years, Michigan for 1939, and Minnesota for 1939 and 1919)

Designated principal expenses (\$1,000)						Aggregate horsepower rating of power equipment	
Wages of production and development workers	Salaries of all other employees	Supplies and iron-bearing materials received for beneficiation or agglomeration ³	Fuel	Purchased electric energy	Contract work		
119,688	37,221	88,703	9,549	13,767	47,515	1,795,203	1
27,431	5,895	10,791	2,280	4,174	236	600,479	2
41,049	46,385	18,717	5,332	4,607	1,552	500,641	3
76,698	7,044	27,841	8,871	1,634	2,470	381,044	4
15,249	2,765	8,356	2,221	2,565	5,606	185,030	5
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	6
2,970	369	1,428	1,350	613	18	49,660	7
4,067	508	2,512	601	199	80	36,493	8
3,556	523	1,655	69	471	183	24,845	9
865	126	391	15	184	...	15,957	10
595	87	244	33	106	18	8,741	11
11,693	2,242	6,701	2,152	2,094	5,423	160,185	12
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	13
2,375	282	1,184	1,317	507	...	40,919	14
86,534	29,673	60,156	6,203	9,352	34,708	1,358,756	15
17,332	4,452	7,191	1,783	2,833	151	438,049	16
30,493	3,940	14,306	3,510	3,509	1,490	374,502	17
62,845	5,490	22,552	6,963	1,311	2,176	289,031	18
29,937	8,333	12,382	756	2,366	4,720	281,529	19
8,135	1,257	3,398	335	1,397	88	153,315	20
13,050	1,279	5,179	767	1,794	16	173,477	21
32,186	2,381	7,845	2,669	769	24	142,559	22
51,341	17,857	45,964	5,389	6,252	29,883	1,024,932	23
9,197	3,195	3,793	1,448	1,436	63	284,734	24
16,038	2,507	8,569	2,661	1,533	1,474	184,042	25
28,786	2,993	14,211	4,138	482	2,120	139,740	26
5,256	3,483	1,810	58	734	105	52,295	27
1,405	154	558	82	182	...	16,983	28
1,873	116	496	156	60	32	6,732	29
14,510	3,577	17,630	707	1,631	722	180,222	30
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	31
6,218	727	2,456	428	374	38	66,350	32
8,537	912	2,201	1,144	106	89	46,051	33
12,942	3,377	16,879	446	1,490	253	138,505	34
5,534	564	1,531	149	459	58	64,415	35
5,637	653	2,213	361	351	2	61,442	36
6,810	736	1,596	847	106	74	36,890	37
1,568	200	751	261	141	469	41,717	38
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	39
581	74	243	67	23	36	4,908	40
1,727	176	605	297	...	15	9,161	41
3,395	1,206	2,561	418	219	6,479	71,195	42
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	43
1,223	103	372	44	111	6	8,309	44
716	68	262	71	4	3	3,110	45

⁸Statistics for North Central exclude Missouri. Figures for this State are included with statistics for the South.⁹Wisconsin and Missouri for 1954 and Wisconsin only for 1929 and 1919. See footnote 8 above.¹⁰Statistics for the South exclude Texas. Figures for this State are included with statistics for the West.¹¹For 1954, Georgia, Tennessee, Arkansas, and Texas; for 1939, Virginia, Georgia, and Tennessee; for 1929, Missouri, North Carolina, Georgia, and Tennessee; for 1919, Missouri, Maryland, Virginia, North Carolina, Georgia, Tennessee, Arkansas, and Texas. See footnotes 8 and 10 above.¹²For all years, Wyoming, New Mexico, and Utah. In addition, for 1954, Montana, Colorado, Nevada, and California; for 1939, Washington and California; for 1929, Montana, Colorado, Nevada, and Washington; and for 1919, Montana, Idaho, Washington, and California.

Table 3.—DETAILED STATISTICS FOR THE IRON ORES
(For explanation of line

	Item	United States, total	Middle Atlantic			
			Total	New Jersey	New York and Pennsylvania	
1	Number of operating companies.....	94	9	4	5	
2	Number of establishments.....	225	12	5	7	
3	Number of mines.....	298	13	5	8	
4	Number of beneficiating and agglomeration plants.....	123	10	5	5	
5	Crude iron ore mined, total ¹.....1,000 long tons..	107,358	(D)	1,025	(D)	
	By source:					
6	From underground operations.....do....	24,223	(D)	1,025	(D)	
7	From open-pit operations.....do....	83,135	(D)	...	(D)	
	By grade:					
8	Direct-shipping ores.....do....	49,143	(D)	(D)	(D)	
9	Beneficiating-grade and agglomeration-grade ores.....do....	58,215	(D)	(D)	(D)	
10	Usable iron ore shipped ^{1,2}.....do....	76,999	3,988	476	3,512	
11	Value of shipments, total ³.....\$1,000..	547,218	47,422	6,740	40,682	
12	Beneficiating-grade and agglomeration-grade iron ores ^{1,4}.....do....	8,058	(D)	...	(D)	
13	Value of net shipments, total ³.....do....	539,160	(D)	6,740	(D)	
14	Direct-shipping iron ores ¹.....do....	315,971	547,422	6,740	540,682	
15	Iron concentrates ¹.....do....	223,189				...
16	Sinter and other agglomerates.....do....					(D)
17	Other products and services.....do....					
18	Value added in mining.....\$1,000..	435,668	28,512	5,118	23,394	
19	Number of persons engaged, total.....	34,243	3,903	887	3,016	
20	Production and development workers.....	28,216	3,437	797	2,640	
21	All other employees.....	5,954	466	90	376	
22	Proprietors and firm members.....	73	...	...	...
23	Performing manual labor.....	46	...	...	...
24	Man-hours worked by production and development workers, total...1,000..	53,288	6,412	1,468	4,944	
25	At mines, total.....do....	46,001	4,117	974	3,143	
26	Underground.....do....	19,956	2,793	794	1,999	
27	Open-pit.....do....	12,671	500	5	495	
28	Surface (including mine shops and yards).....do....	13,374	824	175	649	
29	At beneficiating and agglomeration plants.....do....	7,287	2,295	494	1,801	
30	Man-hours spent on development and exploration work (included above).....do....	8,419	311	220	91	
31	Value of net shipments per man-hour.....dollars..	10.17	(D)	4.59	(D)	
32	Usable iron ore shipped per man-hour.....long tons..	1.44	0.62	0.32	0.71	
33	Principal expenses designated below, total.....\$1,000..	316,443	36,762	6,457	30,305	
34	Wages of production and development workers.....do....	119,688	15,249	3,556	11,693	
35	Salaries of all other employees.....do....	37,221	2,765	523	2,242	
36	Supplies and iron-bearing materials received for beneficia-					
	tion or agglomeration.....do....	88,703	8,356	1,655	6,701	
37	Fuel.....do....	9,549	2,221	69	2,152	
38	Purchased electric energy.....do....	13,767	2,565	471	2,094	
39	Contract work.....do....	47,515	5,606	183	5,423	
40	Purchased machinery installed.....do....	36,994	4,420	137	4,283	
41	Capital expenditures, total.....do....	84,978	4,258	893	3,365	
42	Development and exploration of mineral property.....do....	23,515	864	718	146	
43	Beneficiating and agglomeration plant construction.....do....	28,049	521	17	504	
44	Other construction.....do....	4,741	376	21	355	
45	New machinery and equipment.....do....	27,955	2,495	137	2,358	
46	Used plant and equipment.....do....	718	2	...	2	
47	Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	1,795,203	185,030	24,845	160,185	
48	Per production worker.....	64	54	31	61	
49	Prime movers.....	950,121	28,150	4,240	23,910	
50	Electric motors driven by purchased energy.....	845,082	156,880	20,605	136,275	
51	Horsepower rating of electric motors driven by energy generated at the establishment.....	178,556	...	...	...
52	Energy used.....million kwh equivalent..	5,928	2,037	67	1,970	
53	Coal.....1,000 short tons..	376	208	1	207	
54	Fuel oil.....1,000 barrels..	852	129	12	117	
55	Gas.....million cuft ..	1,319	...	...	...
56	Electric energy purchased.....million kwh..	984	238	36	202	
57	Electric energy generated and used.....do....	187	...	...	...
58	Water intake, including mine water used.....million gallons..	26,855	4,705	606	4,099	
59	Per production worker.....do....	0.95	1.37	0.76	1.55	

(D) Withheld to avoid approximately disclosing figures for individual companies.

¹See table 1, footnote 2.²See table 1, footnote 4.³See table 1, footnote 5.

INDUSTRY, BY GEOGRAPHIC DIVISIONS AND STATES: 1954

captions, see INTRODUCTION)

North Central				South				West			
Total	Michigan	Minnesota	Wisconsin and Missouri	Total	Alabama	Texas	Georgia, Tennessee, and Arkansas	Total	Utah	Nevada	Montana, Wyoming, Colorado, New Mexico, and California
35	11	26	10	40	22	4	14	17	4	6	8
140	42	88	10	51	32	5	14	22	7	7	2
212	43	159	10	51	32	5	14	22	7	7	3
70	4	59	7	41	26	4	11	2	...	...	4
80,575	11,223	67,436	1,916	13,266	9,697	2,557	1,012	(D)	2,920	351	(D) 5
14,444	9,948	2,721	1,775	4,963	4,963	...	...	(D)	...	...	(D) 6
66,131	1,275	64,715	141	8,303	4,734	2,557	1,012	(D)	2,920	351	(D) 7
41,278	(D)	29,328	(D)	3,492	3,416	(D)	(D)	(D)	2,920	351	(D) 8
39,297	(D)	38,108	(D)	9,774	6,281	(D)	(D)	(D)	...	...	(D) 9
60,395	9,723	49,069	1,603	7,461	6,301	915	245	5,155	3,041	351	1,763 10
410,957	71,697	327,169	12,091	53,533	46,204	6,318	1,011	35,306	19,357	2,025	13,924 11
(D)	...	(D)	...	(D)	(D)	...	...	...	...	...	...
(D)	71,697	(D)	12,091	(D)	(D)	6,318	1,011	35,306	19,357	2,025	13,924 13
267,224	671,697	188,949	612,091	18,443	18,226	6,318	1,011	35,157	19,208	2,025	13,924 14
125,288		121,432		30,948	23,386	...	...	...	...	...	...
12,398	...	12,398	...	54,142	54,142	...	...	...	149	...	...
56,047	(D)	54,390	(D)	32,918	27,060	5,138	720	26,832	13,201	998	12,693 17
347,346	59,050	278,064	10,232	4,328	3,853	341	134	371	426	128	417 19
25,041	7,944	15,402	71,695	3,779	3,370	312	97	759	312	78	369 20
20,241	6,514	12,520	1,207	504	470	28	6	198	112	44	42 21
4,786	1,429	2,878	7479	45	13	1	31	14	2	6	6 22
14	1	4	9	31	7	1	23	7	...	2	5 23
8	1	2	5	7,093	6,212	664	217	1,563	615	186	762 24
38,220	12,582	23,420	2,218	5,635	5,158	329	148	1,522	615	186	721 25
34,727	12,469	20,099	2,159	3,969	3,969	...	...	236	...	...	236 26
12,958	8,745	2,617	1,596	776	590	57	129	767	430	183	154 27
10,628	263	10,336	29	890	599	272	19	519	185	3	331 28
11,141	3,461	7,146	534	1,458	1,054	335	69	41	...	...	41 29
3,493	113	3,321	59	100	95	...	5	267	241	1	25 30
7,741	1,568	6,007	166	(D)	(D)	9.52	4.66	22.59	31.47	10.89	18.27 31
(D)	5.70	(D)	5.45	1.05	1.01	1.38	1.13	3.36	4.94	1.89	2.31 32
1.58	0.77	2.10	0.72	38,777	35,387	2,755	635	14,278	7,572	1,400	5,306 33
226,626	58,494	156,686	711,446	14,510	12,942	1,301	267	3,395	1,344	431	1,620 34
86,534	29,937	51,341	5,256	3,577	3,377	178	22	1,206	675	263	268 35
29,673	8,333	17,857	73,483	17,630	16,879	561	190	2,561	1,247	318	996 36
60,156	12,382	45,964	1,810	707	446	178	83	418	212	93	113 37
6,203	756	5,389	58	1,631	1,490	134	7	219	135	...	84 38
9,352	2,366	6,252	734	722	253	403	66	6,479	3,959	295	2,225 39
34,708	4,720	29,883	105	2,756	2,363	181	212	1,803	900	380	523 40
28,015	3,983	23,564	468	2,831	2,287	277	267	3,066	297	59	2,710 41
74,823	11,560	61,947	1,316	153	31	97	25	16	...	5	11 42
22,482	3,956	17,655	871	115	70	...	45	1,926	...	...	1,926 43
25,487	2,452	23,028	7	36	27	9	...	263	13	...	250 44
4,066	1,667	2,364	35	2,253	1,968	165	120	827	278	50	499 45
22,380	3,373	18,678	329	274	191	6	77	34	6	4	24 46
408	112	222	74	138,505	138,505	31,722	9,995	71,195	32,493	5,239	33,463 47
1,358,756	281,529	1,024,932	52,295	48	41	102	103	94	104	67	91 48
67	43	82	43	66,317	33,803	22,999	7,515	52,113	26,874	5,199	20,040 49
803,541	104,962	690,765	7,814	113,905	104,702	8,723	480	19,082	5,619	40	13,423 50
555,215	176,567	334,167	44,481	...	79	...	200	2,753	2,603	150	...
175,524	76,344	99,180	...	279	434	283	26	142	68	23	51 52
3,006	637	2,297	72	16	16	...	...	2	...	...	2 53
150	60	87	3	30	20	3	7	44	32	10	2 54
649	14	633	2	(D)	(D)	814	...	...	...	...	...
(D)	...	(D)	...	167	152	14	1	15	6	...	9 56
564	145	378	41	...	...	...	...	2	2	...	...
185	75	110	...	9,966	3,283	6,327	356	103	18	...	85 58
12,081	1,571	10,333	177	2.64	0.97	20.28	3.67	0.14	0.06	...	0.23 59
0.60	0.24	0.83	0.15								

⁴See table 1, footnote 6.⁵Includes the value of beneficiating-grade ores.⁶Includes the value of other products and services.⁷Includes figures for central office employees in Ohio.

Table 4.—DETAILED STATISTICS FOR THE IRON ORES INDUSTRY

Part I.—ESTABLISHMENTS CLASSIFIED

(For explanation of line

Item	All types of establishments	Producing establishments	
		Open-pit mines and combination open-pit and underground mines	
		Without beneficiating plant ¹	With beneficiating plant
1 Number of operating companies.....	94	39	52
2 Number of establishments.....	225	58	92
3 Number of mines.....	298	58	165
4 Number of beneficiating and agglomeration plants.....	123	3	98
5 Crude iron ore mined, total ⁴.....1,000 long tons..	107,358	⁵ 10,617	⁵ 74,551
6 Direct-shipping ores.....do....	49,143	10,062	22,716
7 Beneficiating-grade and agglomeration-grade ores.....do....	58,215	555	51,835
8 Iron content of crude ores mined, total ⁴.....do....	46,037	⁵ 5,611	⁵ 30,375
9 Content of direct-shipping ores.....do....	24,856	5,399	11,528
10 Content of beneficiating-grade and agglomeration-grade ores.....do....	21,181	212	18,847
11 Value of shipments.....\$1,000..	547,218	65,056	320,726
12 Value added in mining.....do....	435,668	54,882	260,737
13 Number of persons engaged, total.....	⁷ 34,243	2,025	14,247
14 Production and development workers.....	28,216	1,642	12,327
15 All other employees.....	⁷ 5,954	357	1,873
16 Proprietors and firm members.....	73	26	47
17 Performing manual labor.....	46	13	33
18 Man-hours worked by production and development workers, total.....1,000..	53,288	3,011	23,785
19 At mines, total.....do....	46,001	3,011	18,913
20 Underground and open-pit.....do....	32,627	⁵ 1,970	⁵ 12,170
21 Surface (including mine shops and yards).....do....	13,374	1,041	6,743
22 At beneficiating and agglomeration plants.....do....	7,287	...	4,872
23 Man-hours spent on development and exploration work (included above).....do....	8,419	994	4,916
24 Crude ore mined per man-hour at mine.....long tons..	2.33	3.53	3.94
25 Iron content of crude ore mined per man-hour at mine.....do....	1.00	1.86	1.61
26 Principal expenses designated below, total.....\$1,000..	⁷ 316,443	21,947	133,592
27 Wages of production and development workers.....do....	119,688	6,539	51,176
28 Salaries of all other employees.....do....	⁷ 37,221	2,018	11,328
29 Supplies and iron-bearing materials received for beneficiation or agglomeration.....do....	88,703	5,127	45,460
30 Fuel.....do....	9,549	943	6,403
31 Purchased electric energy.....do....	13,767	667	6,324
32 Contract work.....do....	47,515	6,653	12,901
33 Purchased machinery installed.....do....	36,994	2,735	20,359
34 Capital expenditures, total.....do....	84,978	5,951	31,458
35 Development and exploration of mineral property.....do....	23,515	3,354	11,486
36 Beneficiating and agglomeration plant construction.....do....	28,049	328	6,416
37 Other construction.....do....	4,741	288	935
38 New machinery and equipment.....do....	27,955	1,913	12,202
39 Used plant and equipment.....do....	718	68	419
40 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	1,795,203	216,558	954,059
41 Per production worker.....	64	132	77
42 Prime movers.....	950,121	168,317	621,886
43 Electric motors driven by purchased energy.....	845,082	48,241	332,173
44 Horsepower rating of electric motors driven by energy generated at the establishment reported.....	178,556	2,793	105,486
45 Energy used.....million kwh equivalent..	5,928	330	3,504
46 Coal.....1,000 short tons..	376	3	206
47 Fuel oil.....1,000 barrels..	852	137	595
48 Natural and manufactured gas.....million cu. ft..	1,319	...	1,069
49 Electric energy purchased.....million kwh..	984	34	455
50 Electric energy generated and used.....do....	187	2	121
51 Water intake, including mine water used.....million gallons..	26,855	142	23,385
52 Per production worker.....do....	0.95	0.09	1.90

See footnotes at end of table.

IN THE UNITED STATES, BY TYPE OF OPERATION: 1954

BY PRINCIPAL MINING METHOD
(captions, see INTRODUCTION)

Producing establishments—Continued										
Underground mines							Beneficiating plants only ³	Non- producing establishments		
Total		Principal mining method								
Without beneficiating plant ¹	With beneficiating plant	Open stoping	Shrinkage stoping	Sub- level caving	Block caving	Top slicing and other ²				
15	10	9	4	9	5	4	4	11	1	
44	11	24	5	15	7	4	4	16	2	
46	12	26	5	15	8	4	1	16	3	
1	11	5	4	...	1	1	4	6	4	
16,551	5,639	10,470	1,051	5,385	4,595	689	...	...	5
} 16,551	5,639	{ 7,052	1,051	{ 5,385	4,595	689	{ ...	...	6
		3,418		...			...	...	7
7,980	2,071	4,375	393	2,793	2,150	340	...	...	8
} 7,980	2,071	{ 3,133	393	{ 2,793	2,150	340	{ ...	...	9
		1,242		...			...	...	10
106,774	39,627	67,438	7,066	36,868	30,432	4,597	15,035	...	11	
87,405	30,998	52,096	5,392	32,214	24,226	4,475	3,747	(⁶)	12	
11,399	3,689	6,274	895	4,149	3,424	346	511	435	13	
10,183	3,285	5,605	804	3,769	2,988	72	446	333	14	
1,216	404	669	91	380	436	44	65	102	15	
...	...	...	...	...	...	...	...	...	16
...	...	...	...	...	...	...	...	...	17
19,006	6,054	10,279	1,499	6,924	5,795	563	832	600	18	
18,955	4,522	9,765	1,030	6,924	5,208	550	...	600	19	
14,433	3,610	7,609	847	5,193	4,046	348	...	444	20	
4,522	912	2,156	183	1,731	1,162	202	...	156	21	
51	1,532	514	469	...	587	13	852	...	22	
1,836	273	394	212	940	517	40	...	400	23	
0.87	1.25	1.07	1.02	0.78	0.88	1.25	...	...	24
0.42	0.46	0.45	0.38	0.40	0.41	0.62	...	...	25
78,787	25,524	44,971	6,576	27,115	23,350	2,299	13,495	30,506	26	
44,925	14,006	24,553	3,657	16,645	12,811	1,265	1,724	1,318	27	
7,890	2,439	4,494	538	2,470	2,577	250	462	492	28	
18,910	⁸ 6,116	⁸ 12,586	1,677	5,175	⁸ 6,188	⁸ 607	⁸ 10,855	2,539	29	
901	952	794	66	191	740	62	104	246	30	
4,105	2,011	2,544	455	1,968	1,034	115	350	310	31	
2,056	(⁸)	(⁸)	183	666	(⁸)	(⁸)	(⁸)	25,601	32	
4,629	1,697	2,861	151	1,533	1,248	533	851	6,723	33	
11,232	2,147	3,443	858	4,879	3,004	1,195	872	33,318	34	
5,039	1,281	882	683	2,350	1,877	528	2	2,353	35	
...	163	146	17	...	...	...	34	21,108	36
1,774	40	618	21	725	189	261	...	1,704	37	
4,192	661	1,781	137	1,610	938	387	836	8,151	38	
227	2	16	...	194	...	19	...	2	39	
398,867	136,718	262,973	22,517	147,911	87,824	14,360	18,430	70,571	40	
39	42	47	28	39	29	48	41	212	41	
91,336	17,430	41,527	4,286	15,766	40,588	6,599	5,220	45,932	42	
307,531	119,288	221,446	18,231	132,145	47,236	7,761	13,210	24,639	43	
69,827	...	12,675	812	4,855	51,485	...	...	450	44
940	937	878	70	224	678	27	113	104	45	
79	87	77	2	13	73	1	...	1	46	
13	66	28	10	5	29	7	2	39	47	
56	...	56	...	...	...	...	194	...	48
286	150	217	35	112	66	6	38	21	49	
64	...	9	1	4	50	...	...	...	50
812	1,781	1,451	588	59	433	62	730	5	51	
0.08	0.54	0.26	0.73	0.02	0.14	0.21	1.64	0.02	52	

Table 4.—DETAILED STATISTICS FOR THE IRON ORES INDUSTRY

Part II.—PRODUCING ESTABLISHMENTS CLASSIFIED

	Item	All producing establishments	Mines only ¹	Beneficiating and agglomeration plants (with or without mines)
				Total
1	Number of operating companies.....	92	46	62
2	Number of establishments.....	209	102	107
3	Number of mines.....	282	104	178
4	Number of beneficiating and agglomeration plants.....	117	4	113
5	Crude iron ore beneficiated or agglomerated ¹¹.....1,000 long tons..	58,623	...	58,623
6	Iron concentrates and agglomerates produced ¹².....do....	29,079	...	29,079
7	Value of shipments.....\$1,000..	547,218	171,830	375,388
8	Value added in mining.....do....	437,769	142,287	295,482
9	Number of persons engaged, total.....	31,871	13,424	18,447
10	Production and development workers.....	27,883	11,825	16,058
11	All other employees.....	3,915	1,573	2,342
12	Proprietors and firm members.....	73	26	47
13	Performing manual labor.....	46	13	33
14	Man-hours worked by production and development workers, total.....1,000..	52,688	22,017	30,671
15	At mines.....do....	45,401	21,966	23,435
16	At beneficiating and agglomeration plants.....do....	7,287	51	7,236
17	Man-hours spent on development and exploration work (included above).....do....	8,019	2,830	5,189
18	Iron concentrates and agglomerates produced per man-hour at plant...long tons..	(13)	...	(13)
19	Iron concentrates and agglomerates produced per long ton of crude iron ore beneficiated or agglomerated.....do....	(13)	...	(13)
20	Principal expenses designated below, total.....\$1,000..	273,345	100,734	172,611
21	Wages of production and development workers.....do....	118,370	51,464	66,906
22	Salaries of all other employees.....do....	24,137	9,908	14,229
23	Supplies and iron-bearing materials received for benefici- ation or agglomeration.....do....	86,164	24,037	62,127
24	Fuel.....do....	9,303	1,844	7,459
25	Purchased electric energy.....do....	13,457	4,772	8,685
26	Contract work.....do....	21,914	8,709	13,205
27	Purchased machinery installed.....do....	30,271	7,364	22,907
28	Capital expenditures, total.....do....	51,660	17,183	34,477
29	Development and exploration of mineral property.....do....	21,162	8,393	12,769
30	Beneficiating and agglomeration plant construction.....do....	6,941	328	6,613
31	Other construction.....do....	3,037	2,062	975
32	New machinery and equipment.....do....	19,804	6,105	13,699
33	Used plant and equipment.....do....	716	295	421
34	Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	1,724,632	615,425	1,109,207
35	Per production worker.....	62	52	69
36	Prime movers.....	904,189	259,653	644,536
37	Electric motors driven by purchased energy.....	820,443	355,772	464,671
38	Horsepower rating of electric motors driven by energy generated at establishments reported.....	178,106	72,620	105,486
39	Energy used.....million kwh equivalent..	5,824	1,270	4,554
40	Coal.....1,000 short tons..	375	82	293
41	Fuel oil.....1,000 barrels..	813	150	663
42	Natural and manufactured gas.....million cu. ft..	1,319	56	1,263
43	Electric energy purchased.....million kwh..	963	320	643
44	Electric energy generated and used.....do....	187	66	121
45	Water intake, including mine water used.....million gallons..	26,850	954	25,896
46	Per production worker.....do....	0.96	0.08	1.61

¹Includes mines with a nonproducing plant.²Top slicing represents more than 98 percent of the total value of shipments for this group.³Includes one plant with a nonproducing mine.⁴See table 1, footnote 2.⁵For combination open-pit and underground mines, approximately 90 percent of the crude ore mined was mined at open-pit operations and about twice as many man-hours were spent at open-pit operations as at underground operations.⁶Value added was not computed; the cost of supplies, fuel, purchased electric energy, contract work, and purchased machinery installed exceeds capital expenditures by \$2,101,000.⁷Includes 1,937 employees at central offices, paid \$12,592,000 in salaries, which were not classified by type of operation.

IN THE UNITED STATES, BY TYPE OF OPERATION: 1954—Continued

BY PRINCIPAL BENEFICIATION METHOD

Beneficiating and agglomeration plants (with or without mines)—Continued						
Principal beneficiation method						
Log washing	Jigging	Heavy density separation	Magnetic separation	Agglomeration ⁹	Flotation, spirals, and other ¹⁰	
33	4	10	5	10	8	1
58	4	19	6	11	9	2
85	4	54	6	21	8	3
61	4	20	6	13	9	4
22,786	1,188	15,617	1,710	14,629	2,693	5
...	...	...	...	...	1,767	6
150,751	3,414	53,553	17,536	141,581	8,553	7
127,874	2,583	45,356	15,068	97,431	7,170	8
6,698	309	2,405	1,080	7,598	357	9
5,794	262	2,031	972	6,680	319	10
861	45	374	108	918	36	11
43	2	...	...	...	2	12
29	2	...	...	...	2	13
11,066	447	3,984	1,842	12,691	641	14
9,675	291	3,183	1,323	8,460	503	15
1,391	156	801	519	4,231	138	16
3,004	22	387	243	1,401	132	17
8.39	2.78	8.66	2.16	1.69	(¹³)	18
0.51	0.36	0.44	0.66	0.49	(¹³)	19
59,599	2,008	21,353	10,410	75,183	4,058	20
23,295	911	8,728	4,358	28,299	1,315	21
5,195	346	2,573	659	5,264	192	22
22,756	532	6,793	2,363	28,312	1,371	23
2,489	42	575	153	4,057	143	24
2,089	139	1,397	525	4,433	102	25
3,775	38	1,287	2,352	4,818	935	26
8,554	151	2,913	575	10,479	235	27
16,786	71	4,768	3,500	7,949	1,403	28
8,611	31	2,058	718	932	419	29
2,617	4	668	1,938	591	795	30
327	...	146	269	232	1	31
5,130	36	1,601	575	6,192	165	32
101	...	295	...	2	23	33
447,171	23,244	189,094	47,353	353,302	49,043	34
77	89	93	49	53	154	35
309,952	12,298	108,577	22,078	150,085	41,546	36
137,219	10,946	80,517	25,275	203,217	7,497	37
60,438	230	1,512	...	38,981	4,325	38
901	27	262	93	3,212	59	39
26	1	5	1	257	3	40
291	5	65	12	276	14	41
10	...	...	...	1,253	...	42
123	8	86	41	381	4	43
41	...	1	...	69	10	44
8,243	258	5,481	661	9,649	1,604	45
1.42	0.98	2.70	0.68	1.44	5.03	46

⁸Cost of contract work is included with the cost of supplies.⁹Includes establishments reporting any agglomeration, usually along with the production of concentrates. In most instances, but not all, the quantity and value of agglomerates produced exceeded that of concentrates produced and shipped without agglomeration.¹⁰Flotation and spirals represent, respectively, approximately 20 percent and 10 percent of the total value of shipments shown for this group.¹¹See table 1, footnotes 2 and 3.¹²See table 1, footnote 2, and table 5, footnote 5. Total for all beneficiating and agglomeration plants and figure for flotation, spirals, and other methods includes iron concentrates and agglomerates produced by establishments in industries other than the iron ores industry. Such production amounts to less than five percent of the total quantity of iron concentrates and agglomerates produced.¹³Not computed. See footnote 12 above.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 5.—PRODUCTS OF THE IRON ORES INDUSTRY AND IRON CONCENTRATES AND AGGLOMERATES PRODUCED
IN ALL MINERAL INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954 AND 1939

(For explanation of column captions, see INTRODUCTION)

Geographic division, State, and product	1954										1939 production		
	Production (1,000 long tons)		Shipments and interplant transfers						Stocks (1,000 long tons)				
			Total		To iron and steel plants		To others						
	Gross weight	Iron content	Quan- tity (1,000 long tons)	Value f.o.b. mine or plant (\$1,000)	Quan- tity (1,000 long tons)	Value f.o.b. mine or plant (\$1,000)	Quan- tity (1,000 long tons)	Value f.o.b. mine or plant (\$1,000)	Decem- ber 31, 1953	Decem- ber 31, 1954	Quan- tity (1,000 long tons)	Value f.o.b. mine or plant (\$1,000)	
UNITED STATES													
IRON ORES INDUSTRY													
All products and services, total.....	xxx	xxx	xxx	1547,218	xxx	xxx	xxx	xxx	xxx	xxx	xxx	150,871	
Primary Products													
Crude iron ore mined, total ²	107,358	46,037	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	59,668	xxx	
Direct-shipping ores, total.....	49,143	24,856	48,391	315,971	47,991	313,781	400	2,190	3,942	4,694	42,746	122,025	
From underground operations.....	17,878	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	18,306	xxx	
From open-pit operations.....	31,265	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	24,440	xxx	
Beneficiating-grade ores, total ³	58,215	21,181	2,075	8,058	xxx	xxx	xxx	xxx	xxx	xxx	16,922	xxx	
From underground operations.....	6,345	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	2,807	xxx	
From open-pit operations.....	51,870	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	14,115	xxx	
Crude manganiferous iron ore mined (included above), total.....	586	217	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	(NA)	xxx	
Direct-shipping ores.....	85	35	89	535	(4)	(4)	(4)	(4)	(4)	(4)	387	1,057	
Beneficiating-grade ores.....	501	182	(D)	(D)	xxx	xxx	xxx	xxx	xxx	xxx	(NA)	(NA)	
Manganiferous iron concentrates.....	396	159	398	2,346	4379	42,258	421	488	417	411	374	1,108	
Iron concentrates and agglomerates ⁵	(D)	(D)	(D)	218,741	(D)	(D)	(D)	(D)	(D)	(D)	8,898	28,651	
Secondary Products and Services													
Other products ⁶	xxx	xxx	xxx		1,487	xxx	xxx	xxx	xxx	xxx	xxx	xxx	184
Electric energy generated and sold.....	xxx	xxx	787			xxx	xxx	xxx	xxx	xxx	xxx
Receipts for services performed for others:													
Hauling, stripping, shaft sinking, pumping, shop work, etc.....	xxx	xxx	xxx	615		xxx	xxx	xxx	xxx	xxx	xxx	xxx	11
Beneficiating ore on a custom basis..	xxx	xxx	xxx	8321	xxx	xxx	xxx	xxx	xxx	xxx	xxx		
ALL MINERAL INDUSTRIES													
Usable iron ore, total.....	78,222	40,455	76,999	537,688	75,944	531,273	1,055	6,415	5,936	7,159	51,645	150,679	
Direct-shipping iron ores ²	49,143	24,856	48,391	315,971	47,991	313,781	400	2,190	3,942	4,694	42,746	122,025	
Iron concentrates ^{2 5}	23,548	12,330	23,132	159,262	22,312	155,280	620	3,982	1,923	2,339	8,899	28,654	
Iron agglomerates:													
Sinter.....	4,461	2,631	4,418	51,421	4,383	51,178	35	243	71	126			...
Pellets, nodules, and briquets....	1,070	638	1,058	11,034	1,058	11,034	...	...			
MIDDLE ATLANTIC													
IRON ORES INDUSTRY													
All products and services.....	xxx	xxx	xxx	147,422	xxx	xxx	xxx	xxx	xxx	xxx	xxx	110,376	
ALL MINERAL INDUSTRIES													
Direct-shipping iron ores and iron con- centrates, ⁵ sinter, and pellets.....	4,088	2,535	3,988	48,179	3,834	47,094	154	1,085	370	470	92,355	910,376	
NORTH CENTRAL													
IRON ORES INDUSTRY													
All products and services, total.....	xxx	xxx	xxx	1410,957	xxx	xxx	xxx	xxx	xxx	xxx	xxx	110125,706	
Primary Products ¹¹													
Crude iron ore mined, total ²	80,575	37,272	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	(NA)	xxx	
Direct-shipping ores, total.....	41,278	21,268	40,355	267,224	40,201	266,281	154	943	3,352	4,275	1035,303	10108,430	
From underground operations.....	14,058	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	(NA)	xxx	
From open-pit operations.....	27,220	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	(NA)	xxx	
Beneficiating-grade ores, total ³	39,297	16,004	(D)	(12)	xxx	xxx	xxx	xxx	xxx	xxx	(NA)	xxx	
From underground operations.....	386	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	(NA)	xxx	
From open-pit operations.....	38,911	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	(NA)	xxx	
Iron concentrates ^{2 5}	18,993	10,051	18,705	125,288	18,209	122,090	496	3,198	1,529	1,817	106,028	1017,265	
Iron sinter, pellets, and nodules.....	1,391	863	1,335	12,398	1,335	12,398	...	...	67	123		

See footnotes at end of table.

Table 5.—PRODUCTS OF THE IRON ORES INDUSTRY AND IRON CONCENTRATES AND AGGLOMERATES PRODUCED IN ALL MINERAL INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954 AND 1939—Continued

Geographic division, State, and product	1954										1939 production	
	Production (1,000 long tons)		Shipments and interplant transfers						Stocks (1,000 long tons)			
			Total		To iron and steel plants		To others					
	Gross weight	Iron content	Quan- tity (1,000 long tons)	Value f.o.b. mine or plant (\$1,000)	Quan- tity (1,000 long tons)	Value f.o.b. mine or plant (\$1,000)	Quan- tity (1,000 long tons)	Value f.o.b. mine or plant (\$1,000)	Decem- ber 31, 1953	Decem- ber 31, 1954	Quan- tity (1,000 long tons)	Value f.o.b. mine or plant (\$1,000)
NORTH CENTRAL—Con.												
IRON ORES INDUSTRY—Con.												
Secondary Products and Services												
Other products and electric energy gen- erated and sold.....	xxx	xxx	xxx	1 ²⁵ ,432	xxx	xxx	xxx	xxx	xxx	xxx	xxx	1011
Receipts for services performed for others:												
Hauling, stripping, shaft sinking, pumping, shop work, etc.....	xxx	xxx	xxx	615	xxx	xxx	xxx	xxx	xxx	xxx	xxx	
Beneficiating ore on a custom basis..	xxx	xxx	xxx	8 ³²¹	xxx	xxx	xxx	xxx	xxx	xxx	xxx	
MICHIGAN												
IRON ORES INDUSTRY												
All products and services, total....	xxx	xxx	xxx	1 ⁷¹ ,697	xxx	xxx	xxx	xxx	xxx	xxx	xxx	1 ²⁹ ,456
Primary Products ¹¹												
Crude iron ore mined, total ²	11,223	5,911	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	(NA)	xxx
From underground operations.....	9,948	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	(NA)	xxx
From open-pit operations.....	1,275	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	(NA)	xxx
Direct-shipping iron ores and iron con- centrates ^{2 5}	10,765	5,797	9,723	71,697	9,701	(D)	22	166	(D)	(D)	9,167	29,456
Secondary Products and Services												
Electric energy generated and sold, and receipts for hauling, stripping, shaft sinking, pumping, shop work, etc.....	xxx	xxx	xxx		xxx	xxx	xxx	xxx	xxx	xxx	xxx	...
MINNESOTA												
IRON ORES INDUSTRY												
All products and services, total....	xxx	xxx	xxx	1 ³²⁷ ,169	xxx	xxx	xxx	xxx	xxx	xxx	xxx	1 ⁹⁶ ,250
Primary Products ¹¹												
Crude iron ore mined, total ²	67,436	30,436	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	(NA)	xxx
By source:												
From underground operations.....	2,721	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	(NA)	xxx
From open-pit operations.....	64,715	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	(NA)	xxx
By grade:												
Direct-shipping ores.....	29,328	14,851	29,474	188,949	(⁴)	(⁴)	(⁴)	(⁴)	579	433	26,136	78,974
Beneficiating-grade ores ³	38,108	15,585	(D)	(¹²)	xxx	xxx	xxx	xxx	xxx	xxx	(NA)	xxx
Iron concentrates ^{2 5}	18,512	9,793	18,260	121,432	447,106	4 ³⁰⁶ ,406	4 ⁶²⁸	4 ^{3,975}	1,529	1,781	6,028	17,265
Iron sinter, pellets, and nodules.....	1,391	863	1,335	12,398	1,335	12,398	...	...	67	123		
Manganiferous iron direct-shipping ores and concentrates (included above).....	443	181	449	2,674	(D)	(D)	(D)	(D)	17	11	723	2,021
Secondary Products and Services												
Other products, electric energy gener- ated and sold, and receipts for hauling, stripping, shaft sinking, pumping, shop work, etc.....	xxx	xxx	xxx	1 ²⁴ ,390	xxx	xxx	xxx	xxx	xxx	xxx	xxx	11
Receipts for beneficiation on a custom basis.....	xxx	xxx	xxx	8 ³²¹	xxx	xxx	xxx	xxx	xxx	xxx	xxx	
WISCONSIN AND MISSOURI												
IRON ORES INDUSTRY												
All products and services, total....	xxx	xxx	xxx	1 ¹² ,091	xxx	xxx	xxx	xxx	xxx	xxx	xxx	(10)
Primary Products ¹¹												
Crude iron ore mined, total.....	1,916	925	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	(NA)	xxx
From underground operations.....	1,775	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	(NA)	xxx
From open-pit operations.....	141	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	(NA)	xxx

See footnotes at end of table.

Table 5.—PRODUCTS OF THE IRON ORES INDUSTRY AND IRON CONCENTRATES AND AGGLOMERATES PRODUCED IN ALL MINERAL INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954 AND 1939—Continued

Geographic division, State, and product	1954										1939 production	
	Production (1,000 long tons)		Shipments and interplant transfers						Stocks (1,000 long tons)			
			Total		To iron and steel plants		To others					
	Gross weight	Iron content	Quan- tity (1,000 long tons)	Value f.o.b. mine or plant (\$1,000)	Quan- tity (1,000 long tons)	Value f.o.b. mine or plant (\$1,000)	Quan- tity (1,000 long tons)	Value f.o.b. mine or plant (\$1,000)	Decem- ber 31, 1953	Decem- ber 31, 1954	Quan- tity (1,000 long tons)	Value f.o.b. mine or plant (\$1,000)
Primary Products ¹¹ —Con.												
Direct-shipping iron ores and iron con- centrates ²	1,666	878	1,603	12,091	1,603	(D)	...	...	(D)	(D)	(¹⁰)	(¹⁰)
Secondary Products and Services												
Other products and receipts for hauling, stripping, shaft sinking, pumping, shop work, etc.....	xxx	xxx	xxx		xxx	xxx	xxx	xxx	xxx	xxx	xxx	(¹⁰)
SOUTH												
IRON ORES INDUSTRY												
All products and services, total.....	xxx	xxx	xxx	¹ 53,533	xxx	xxx	xxx	xxx	xxx	xxx	xxx	¹ ¹³ 10,203
Primary Products												
Crude iron ore mined, total.....	13,266	3,488	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	(NA)	xxx
By source:												
From underground operations.....	4,963	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	(NA)	xxx
From open-pit operations.....	8,303	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	(NA)	xxx
By grade:												
Direct-shipping ores.....	3,492	1,262	3,490	18,443	(D)	(D)	(D)	(D)	8	10	¹³ 5,471	¹³ 8,901
Beneficiating-grade ores.....	9,774	2,226	(D)	(¹²)	xxx	xxx	xxx	xxx	xxx	xxx	(NA)	xxx
Iron concentrates, ² sinter, and briquets	3,981	1,796	3,966	30,948	3,966	30,948	...	...	91	106	¹³ 549	¹³ 1,302
Secondary Products and Services												
Other products and services.....	xxx	xxx	xxx	¹² 4,142	xxx	xxx	xxx	xxx	xxx	xxx	xxx	
ALL MINERAL INDUSTRIES												
Direct-shipping iron ores.....	3,492	1,262	3,490	18,443	7,420	49,294	41	148	8	10	⁹ ¹³ 5,471	⁹ ¹³ 8,901
Iron concentrates, ² sinter, and briquets	3,987	1,798	3,971	30,999					91	107			^{9} ^{13}549	(NA)
WEST												
IRON ORES INDUSTRY												
All products and services, total.....	xxx	xxx	xxx	¹ 35,306	xxx	xxx	xxx	xxx	xxx	xxx	xxx	¹ ¹⁰ 4,586
Direct-shipping iron ores ² and iron concentrates ¹¹	4,993	2,678	5,155	35,157	4,945	34,116	210	1,041	519	357	¹⁰ 1,938	¹⁰ 4,586
Other products and services.....	xxx	xxx	xxx	149	xxx	xxx	xxx	xxx	xxx	xxx	xxx	

xxx Not applicable.

NA Not available.

D Withheld to avoid approximately disclosing figures for individual companies.

¹For 1954, represents total value of shipments and, therefore, contains duplication; for 1939, represents value of net shipments. See table 1, footnote 5.²See table 1, footnote 2.³Includes natural fines agglomerated in the iron ores industry.⁴Figures for direct-shipping ores are combined with those for concentrates.⁵Includes concentrate fines shipped for agglomeration to blast furnaces and other manufacturing establishments. Excludes concentrate fines produced and consumed at the same establishment. No concentrate fines were reported shipped to other establishments in the iron ores industry.⁶For 1954, copper and pyrite concentrates; manganese ores valued chiefly for their manganese content; crushed, broken, or ground granite and other stone; building sand and other sand, except ground sand; and steel, copper, and brass scrap. For 1939, crushed limestone and granite and sand and gravel.⁷Millions of kilowatt hours.⁸Excluded from the total value of products and services in order to avoid duplication. The value of custom concentrates is included in the value shown for iron concentrates.⁹Represents production by establishments in the iron ores industry.¹⁰Statistics for 1939 for North Central represent Michigan and Minnesota only. Figures for Wisconsin and Missouri are not available separately and are included with the West. (For statistics for the West, also see footnote 13 below.)¹¹Represents production in all mineral industries; no production was reported by establishments in industries other than the iron ores industry.¹²Value of beneficiating-grade ores shipped is combined with value of other products.¹³Statistics for 1939 for the South exclude Texas. Figures for that State are not available separately and are included with the West. Statistics for Georgia, Tennessee, and Virginia are not available separately by product. Figures for direct-shipping ores, if any, for these States are included in the figures above for iron concentrates.

Table 6.—GENERAL STATISTICS FOR IRON ORES ESTABLISHMENTS CLASSIFIED BY EMPLOYMENT SIZE,
BY GEOGRAPHIC DIVISIONS AND STATES: 1954

(For explanation of column captions, see INTRODUCTION)

Geographic division, State, and number of employees in establishment	Number of establish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and develop- ment workers (1,000)	Wages and salaries		New capital expendi- tures (\$1,000)
				Production and develop- ment workers	All other employees		Production and develop- ment workers (\$1,000)	All other employees (\$1,000)	
United States, total	225	547,218	435,668	28,216	5,954	53,288	119,688	37,221	84,260
0.....	16	2,750	1,786	...	...	...	...	...	143
1-4.....	28	5,944	4,156	58	14	114	184	51	178
5-9.....	21	1,540	835	147	9	253	440	52	2,183
10-19.....	25	7,953	6,213	329	33	654	1,186	203	367
20-49.....	25	13,132	7,272	691	123	1,344	2,679	655	2,502
50-99.....	29	48,316	39,148	1,898	283	3,810	8,344	1,926	6,352
100-249.....	48	134,862	118,306	6,753	1,112	12,876	29,325	7,058	50,041
250-499.....	23	95,333	69,557	6,852	833	12,751	29,474	4,821	11,568
500-999.....	4	39,297	26,845	2,518	276	5,036	12,061	1,706	2,735
1,000-2,499.....	5	198,091	161,550	8,970	13,271	16,450	35,995	120,749	8,191
2,500 and over.....	1								
Middle Atlantic, total.....	12	47,422	28,512	3,437	466	6,412	15,249	2,765	4,256
5-9.....	2	4,352	637	496	72	894	2,218	400	1,871
20-49.....	1								
50-99.....	1								
100-249.....	3								
250-499.....	2	43,070	27,875	2,941	394	5,518	13,031	2,365	2,385
500-999.....	2								
1,000-2,499.....	1	177,085	146,893	7,236	12,906	13,722	30,356	118,188	8,526
2,500 and over.....	1								
North Central, total.....	140	410,957	347,346	20,241	4,786	38,220	86,534	29,673	74,415
0.....	4	2,367	1,548	...	...	2	2	...	99
1-4.....	15	1,142	1,099	31	9	54	97	32	171
5-9.....	10	1,027	492	65	7	97	204	40	2,124
10-19.....	11	6,034	5,082	149	28	279	652	186	141
20-49.....	14	8,815	6,829	402	57	689	1,500	311	716
50-99.....	24	43,516	35,524	1,606	267	3,120	7,154	1,844	5,865
100-249.....	39	101,674	91,993	5,415	871	10,326	23,417	5,513	46,691
250-499.....	18	69,297	57,886	5,337	641	9,931	23,152	3,649	10,082
500-999.....	1	177,085	146,893	7,236	12,906	13,722	30,356	118,188	8,526
1,000-2,499.....	3								
2,500 and over.....	1								
Michigan, total.....	42	71,697	59,050	6,514	1,429	12,582	29,937	8,333	11,448
0.....	2	3,008	1,854	40	14	55	165	79	2,196
1-4.....	2								
5-9.....	3								
10-19.....	2								
20-49.....	4	1,481	1,455	100	20	176	450	97	348
50-99.....	6	8,196	6,635	457	73	982	2,313	528	1,280
100-249.....	12	59,012	49,106	5,917	11,322	11,369	27,009	17,629	7,624
250-499.....	10								
1,000-2,499.....	1	195,882	161,487	7,500	11,992	14,001	30,618	112,274	13,340
2,500 and over.....	1								
Minnesota, total.....	88	327,169	278,064	12,520	2,878	23,420	51,341	17,857	61,725
0.....	2	979	844	...	...	...	...	...	...
1-4.....	8								
5-9.....	5								
10-19.....	9								
20-49.....	10	7,334	5,374	302	37	513	1,050	214	368
50-99.....	18	35,320	28,889	1,149	194	2,138	4,841	1,316	4,585
100-249.....	26	81,210	76,099	3,389	627	6,426	14,078	3,877	43,186
250-499.....	7	195,882	161,487	7,500	11,992	14,001	30,618	112,274	13,340
1,000-2,499.....	2								
2,500 and over.....	1								
Other States, total.....	10	12,091	10,232	1,207	479	2,218	5,256	3,483	1,242
1-4.....	5	139	152	25	2	35	36	3	93
5-9.....	2								
100-249.....	1								
250-499.....	1								
500-999.....	1	11,952	10,080	1,182	1477	2,183	5,220	13,480	1,149
South, total.....	51	53,533	32,918	3,779	504	7,093	14,510	3,577	2,557
0.....	7	148	110	...	...	...	...	...	21
1-4.....	7	350	172	20	...	41	53	...	...
5-9.....	8	1,799	1,225	206	4	414	544	7	266
10-19.....	11								
20-49.....	8								
50-99.....	3								
100-249.....	2	5,136	3,808	491	64	1,044	2,050	431	508
250-499.....	3	43,269	25,298	2,826	1412	5,066	10,991	12,994	1,501
500-999.....	1								
1,000-2,499.....	1								

See footnotes at end of table.

Table 6.—GENERAL STATISTICS FOR IRON ORES ESTABLISHMENTS CLASSIFIED BY EMPLOYMENT SIZE,
BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

(For explanation of column captions, see INTRODUCTION)

Geographic division, State, and number of employees in establishment	Number of establish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and develop- ment workers (1,000)	Wages and salaries		New capital expendi- tures (\$1,000)
				Production and develop- ment workers	All other employees		Production and develop- ment workers (\$1,000)	All other employees (\$1,000)	
Alabama, total.....	32	46,204	27,060	3,370	470	6,212	12,942	3,377	2,096
0.....	2	15	7	...	...	...	...	...	...
1-4.....	4	197	94	12	...	23	32	...	...
5-9.....	5	278	171	37	...	64	78	...	24
10-19.....	8	1,044	711	107	2	228	312	2	207
20-49.....	4	3,900	3,228	302	19	751	1,165	117	544
50-99.....	3								
100-249.....	2								
250-499.....	2	40,770	22,849	2,912	1449	5,146	11,355	13,258	1,321
500-999.....	1								
1,000-2,499.....	1								
Other States, total.....	19	7,329	5,858	409	34	881	1,568	200	461
0.....	5	133	103	...	...	...	...	...	21
1-4.....	3	153	78	8	...	18	21	...	...
5-9.....	3	477	343	62	2	122	154	5	35
10-19.....	3								
20-49.....	4								
250-499.....	1	6,566	5,334	339	32	741	1,393	195	405
West, total.....	22	35,306	26,892	759	198	1,563	3,395	1,206	3,032
0.....	5	235	128	...	...	...	...	...	23
1-4.....	6	4,452	2,885	7	...	17	32	...	7
5-9.....	1	3,904	2,221	156	27	337	725	135	69
10-19.....	3								
20-49.....	2								
50-99.....	1	26,715	21,658	596	1171	1,209	2,638	1,071	2,933
100-249.....	4								

¹Includes figures for employees at central offices.

Table 7.—MONTHLY EMPLOYMENT IN THE IRON ORES INDUSTRY, BY GEOGRAPHIC DIVISIONS AND STATES AND BY TYPE OF OPERATION: 1954

Geographic division, State, and type of operation	Average employ- ment for the year ¹	Number of employees by month											
		January	Feb- ruary	March	April	May	June	July	August	Sep- tember	October	Novem- ber	Decem- ber
United States, total.....	34,170	37,298	36,913	35,965	34,391	35,409	35,178	35,251	34,176	33,835	31,936	30,381	29,196
GEOGRAPHIC DIVISION AND STATE													
Middle Atlantic.....	3,903	4,605	4,622	4,317	3,800	3,677	3,678	3,699	3,474	3,716	3,725	3,760	3,751
North Central, total.....	25,027	26,647	26,254	26,045	25,360	26,918	26,400	26,260	25,704	25,102	23,330	21,707	20,513
Michigan.....	7,943	8,717	8,575	8,554	8,544	8,524	7,620	7,593	7,534	7,485	7,360	7,449	7,330
Minnesota.....	15,398	16,287	15,953	15,766	15,084	16,685	17,054	17,020	16,497	15,943	14,261	12,625	11,554
Other States.....	1,686	1,643	1,726	1,725	1,732	1,709	1,726	1,647	1,673	1,674	1,709	1,633	1,629
South, total.....	4,283	4,915	4,887	4,776	4,475	4,052	4,130	4,309	4,021	4,024	3,937	3,921	3,948
Alabama.....	3,840	4,439	4,408	4,273	3,990	3,840	3,827	3,821	3,556	3,540	3,455	3,440	3,473
Other States.....	443	476	479	503	485	212	303	488	465	484	482	481	475
West.....	957	1,131	1,150	827	756	762	970	983	977	993	944	993	984
TYPE OF OPERATION													
Producing establishments, total ²	31,798	34,823	34,423	33,476	32,073	33,108	32,802	32,929	31,803	31,469	29,632	28,062	26,863
Open-pit mines ³	10,339	10,724	10,448	10,267	9,707	11,050	11,635	11,828	11,335	10,955	9,841	8,588	7,641
Combination open-pit and underground mines ³	5,860	6,673	6,597	6,594	6,357	6,208	6,026	5,923	5,596	5,675	5,176	4,799	4,686
Underground mines ³	15,088	16,938	16,886	16,125	15,525	15,279	14,569	14,605	14,295	14,270	14,122	14,258	14,128
Beneficiating and agglomeration plants only ⁴ ..	511	488	492	490	464	571	572	573	577	569	493	417	408
Nonproducing operations.....	435	465	480	479	345	328	403	411	462	455	436	451	465

¹Represents the sum of the average employment figures for the year as shown on the separate establishment reports. These are the averages shown in other tables of this report. Because of rounding, the sum of such average figures may differ slightly from an average of the January to December totals shown.²Excludes 1,937 employees at central offices. These offices were not classified by type of operation.³Both mines only and mines operated in conjunction with beneficiating and agglomeration plants.⁴Includes a plant with a nonproducing mine.

Table 8.—GENERAL STATISTICS FOR PRODUCING IRON ORES ESTABLISHMENTS CLASSIFIED BY OUTPUT PER MAN-HOUR,
BY TYPE OF OPERATION AND BY GEOGRAPHIC DIVISION: 1954

(For explanation of column captions, see INTRODUCTION)

Geographic division, type of operation, and output per man-hour ¹	Number of establishments					Value of ship- ments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man- hours worked by pro- duction and de- velop- ment workers (1,000)	Wages and salaries		New capital expend- itures (\$1,000)
	Total	Open-pit mines and combination open-pit and underground mines		Underground mines				Produc- tion and de- velop- ment workers	All other em- ployees		Produc- tion and de- velop- ment workers (\$1,000)	All other em- ployees (\$1,000)	
		Without plant ²	With plant	Without plant ²	With plant								
United States, total.....	³ 209	58	92	44	11	547,218	437,769	27,883	3,915	52,688	118,370	24,137	50,944
Mines only, total ²	102	58	...	44	...	171,830	142,287	11,825	1,573	22,017	51,464	9,908	16,888
Open-pit mines and combination open-pit and underground mines, total.....	58	58	65,056	54,882	1,642	357	3,011	6,539	2,018	5,883
0.50-0.99.....long tons..	1	1	4,158	2,875	147	29	294	623	146	55
1.00-1.99.....do.....	1	1	...	...	...					
2.00-2.99.....do.....	3	3	...	...	...					
3.00-3.99.....do.....	5	5	11,724	11,014	299	51	533	1,150	261	555
4.00-4.99.....do.....	2	2	...	...	...					
5.00-5.99.....do.....	1	1	...	...	...					
6.00-6.99.....do.....	1	1	12,142	11,641	199	41	392	874	255	487
8.00-8.99.....do.....	1	1	...	...	...					
Unclassified ⁴.....do.....	43	43	...	...	...					
Underground mines, total.....	44	44	...	106,774	87,405	10,183	1,216	19,006	44,925	7,890	11,005
Less than 0.20..long tons..	1	1	...	6,972	5,761	894	88	1,685	4,334	627	1,307
0.40-0.49.....do.....	1	...	...	1	...						
0.50-0.59.....do.....	3	...	...	3	...						
0.60-0.69.....do.....	6	6	...	19,934	16,867	2,365	262	4,592	10,665	1,532	2,330
0.70-0.79.....do.....	3	...	...	3	...						
0.80-0.89.....do.....	8	...	...	8	...						
0.90-0.99.....do.....	6	6	...	28,104	23,928	2,617	288	4,984	11,537	1,735	1,691
1.00-1.49.....do.....	7	...	...	7	...						
1.50-1.99.....do.....	1	...	...	1	...						
2.00-2.99.....do.....	1	1	...	13,514	11,009	1,095	163	1,972	4,831	1,131	319
Unclassified ⁵.....do.....	7	...	...	7	...						
Unclassified ⁵.....do.....	7	...	...	7	...						
Mines with beneficiating or ag- glomeration plants, total.....	103	...	92	...	11	360,353	291,735	15,612	2,277	29,839	65,182	13,767	33,184
Open-pit mines and combination open-pit and underground mines, total.....	92	...	92	320,726	260,737	12,327	1,873	23,785	51,176	11,328	31,039
Less than 0.50..long tons..	2	...	2	3,651	1,382	392	53	822	1,576	294	368
0.50-0.99.....do.....	6	...	6	...	...						
1.00-1.99.....do.....	17	...	17	...	...						
2.00-2.99.....do.....	8	...	8	28,441	21,393	1,537	200	2,964	5,835	1,177	5,025
3.00-3.99.....do.....	7	...	7	...	...						
5.00-5.99.....do.....	1	...	1	...	...						
7.00-7.99.....do.....	1	...	1	29,905	26,702	943	217	1,811	3,945	1,570	2,375
8.00-8.99.....do.....	1	...	1	...	...						
Unclassified ⁶.....do.....	49	...	49	...	...						
Underground mines, total.....	11	11	39,627	30,998	3,285	404	6,054	14,006	2,439	2,145
0.20-0.39.....long tons..	4	4	3,833	2,680	592	70	1,112	2,753	410	1,024
0.40-0.49.....do.....	3	...	...	...	3					
0.50-0.59.....do.....	2	...	...	...	2					
0.60-0.69.....do.....	1	1	15,873	12,374	1,240	192	2,165	4,689	1,123	682
1.00-1.49.....do.....	1	...	...	...	1					
Unclassified ⁷.....do.....	1	...	...	...	1					
Beneficiating and agglomeration plants only.....	4	15,035	3,747	446	65	832	1,724	462	872
GEOGRAPHIC DIVISION													
North Central, total.....	³ 128	33	53	36	3	410,957	346,781	19,918	2,906	37,642	85,256	17,767	42,578
Less than 0.50.....long tons..	4	...	1	1	2	4,759	3,265	398	78	770	1,664	447	928
0.50-0.99.....do.....	29	1	3	24	1								
1.00-1.99.....do.....	12	...	6	6	...								
2.00-2.99.....do.....	10	1	8	1	...	69,042	58,018	6,880	774	13,044	30,774	4,824	5,558
3.00-3.99.....do.....	9	4	5	...	...						
4.00-4.99.....do.....	2	2	...	...	...					
5.00-5.99.....do.....	2	1	1	82,794	73,233	2,015	413	3,829	8,434	2,692	3,861
6.00-6.99.....do.....	1	1	...	...	...					
7.00-7.99.....do.....	1	...	1	...	...						
8.00-8.99.....do.....	2	1	1	34,978	27,047	1,854	256	3,417	7,838	1,640	4,647
Unclassified ⁸.....do.....	³ 56	22	27	4	...								
Unclassified ⁸.....do.....	³ 56	22	27	4	...	219,384	185,218	8,771	1,385	16,582	36,546	8,164	27,584

See footnotes at end of table.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 8.—GENERAL STATISTICS FOR PRODUCING IRON ORES ESTABLISHMENTS CLASSIFIED BY OUTPUT PER MAN-HOUR, BY TYPE OF OPERATION AND BY GEOGRAPHIC DIVISION: 1954—Continued

(For explanation of column captions, see INTRODUCTION)

Geographic division, type of operation, and output per man-hour ¹	Number of establishments					Value of ship- ments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man- hours worked by pro- duction and de- velop- ment workers (1,000)	Wages and salaries		New capital expend- itures (\$1,000)
	Total	Open-pit mines and combination open-pit and underground mines		Underground mines				Produc- tion and de- velop- ment workers	All other em- ployees		Produc- tion and de- velop- ment workers (\$1,000)	All other em- ployees (\$1,000)	
		Without plant ²	With plant	Without plant ²	With plant								
GEOGRAPHIC DIVISION—Continued													
Middle Atlantic, South, and West, total.....	³ 81	25	39	8	8	136,261	90,988	7,965	1,009	15,046	33,114	6,370	8,366
Less than 0.50.....long tons..	7	...	1	1	5	17,242	12,359	1,700	231	3,028	6,905	1,345	947
0.50-0.99.....do.....	7	...	3	2	2	14,412	10,916	1,182	141	2,262	5,390	914	397
1.00-1.99.....do.....	15	1	11	2	1	16,919	13,423	1,268	133	2,606	5,208	825	810
2.00-2.99.....do.....	2	2	...	...	...	14,003	11,887	304	42	647	1,394	273	2,744
3.00-3.99.....do.....	3	1	2	...	...	73,685	42,403	3,511	462	6,503	14,217	3,013	3,468
Unclassified ⁴.....do....	³ 47	21	22	3	...								

¹Represents long tons of usable iron ore produced per man-hour of production and development workers. (See table 1, footnotes 2 and 4.)²Includes mines with nonproducing plants.³Includes establishments classified as plants only. These are not included in the detail of the number of establishments classified by type of mine.⁴Principally reports indicating that a substantial proportion of the production was performed by contractors, for whom employee man-hours are not included above, and other reports specifying that a substantial portion of the man-hours reported referred to exploration and development activity. Significant ratios of value of shipments per man-hour could not be computed for these groups. Also includes one small combination open-pit and underground mine. (See footnote 6 below.)⁵Primarily mines reporting shipments of beneficiating-grade ores or natural fines to other iron ores establishments for beneficiation or agglomeration. Since such shipments do not represent usable iron ore, significant ratios of output per man-hour could not be computed.⁶In view of the variation in output per man-hour between open-pit and underground mines, different scales of output per man-hour were used for these two types of operations. Neither scale was suitable for establishments classified as combination open-pit and underground mines, and, consequently, such operations were included in the unclassified group. Establishments reporting both open-pit and underground mining operations account for between one-half and three-fourths of the total value of shipments for the "unclassified" group. The output per man-hour for the several large establishments with both open-pit and underground operations averaged between 2 and 2.5 long tons of usable iron ore. The balance of the establishments in the "unclassified" group were primarily those reporting substantial payments for contract work or development and exploration man-hours (See footnote 4 above.)⁷Includes plants with nonproducing mines. The few establishments reporting beneficiating or agglomeration operations only, without any mining operations, were not classified by output per man-hour. The man-hours required for mining the ore was included in the report for the establishment from which the ore was received and not in the plant report. Therefore, ratios of the output of usable iron ore to the total man-hours required for the production of such ore, including the man-hours at the mine, could not be computed for establishments classified as plants only. (Also see footnote 3 above.)⁸Includes figures for establishments classified as plants only as well as for the types of establishments referred to in footnotes 4, 5, and 6 above.

Table 9.—GENERAL STATISTICS FOR IRON ORES ESTABLISHMENTS CLASSIFIED BY RATIO OF WAGES AND SALARIES TO VALUE ADDED IN MINING, BY GEOGRAPHIC DIVISIONS: 1954

(For explanation of column captions, see INTRODUCTION)

Geographic division and ratio of wages and salaries to value added in mining	Number of establishments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
United States, total.....	225	547,218	435,668	28,216	¹ 5,954	53,288	119,688	¹ 37,221	84,260
Less than 0.30.....	78	313,007	271,640	9,593	1,594	18,250	39,838	9,477	23,854
0.30-0.39.....	27	49,005	37,804	2,611	347	4,923	10,506	2,157	5,917
0.40-0.49.....	19	42,661	30,481	2,817	337	5,500	12,445	2,073	3,867
0.50-0.59.....	22	75,729	59,515	6,329	777	11,462	26,260	5,371	2,743
0.60-0.69.....	14	21,168	17,627	2,092	240	4,067	9,695	1,449	5,077
0.70-0.79.....	10	20,751	7,886	1,175	129	2,135	4,993	794	1,323
0.80-0.89.....	5	3,277	2,473	469	32	819	1,822	191	2,138
0.90-0.99.....	4	3,185	2,617	429	45	870	2,165	311	230
1.00 and over.....	34	15,981	4,039	2,701	516	5,262	11,964	2,806	39,006
Unclassified ²	12	2,454	1,586	...	...	...	...	...	105
Middle Atlantic, total.....	12	47,422	28,512	3,437	466	6,412	15,249	2,765	4,256
Less than 0.30.....	1	40,858	26,447	2,700	368	5,100	11,883	2,183	2,489
0.30-0.39.....	2								
0.40-0.49.....	2								
0.50-0.59.....	2	6,564	2,065	737	98	1,312	3,366	582	1,767
0.60-0.69.....	3								
0.80-0.89.....	1								
1.00 and over.....	3								
North Central, total.....	140	410,957	347,346	20,241	¹ 4,786	38,220	86,534	¹ 29,673	74,415
Less than 0.30.....	57	³ 276,734	³ 242,837	8,660	1,425	16,331	35,992	8,440	³ 20,552
0.30-0.39.....	14	42,369	32,378	2,213	317	4,018	8,848	1,971	5,598
0.40-0.49.....	11	15,606	13,532	1,187	149	2,134	5,038	987	1,027
0.50-0.59.....	15	37,792	31,352	3,190	393	5,979	13,827	2,832	2,340
0.60-0.69.....	9	14,912	13,035	1,500	181	3,013	7,110	1,068	4,926
0.70-0.79.....	5	6,770	5,136	745	75	1,309	3,276	475	522
0.80-0.89.....	2	5,124	4,038	696	67	1,319	3,198	447	2,269
0.90-0.99.....	3								
1.00 and over.....	22								
Unclassified ²	2	11,650 (³)	5,038 (³)	2,050 ...	373 ...	4,117 ...	9,245 ...	1,925 ...	37,181 (³)
South, total.....	51	53,533	32,918	3,779	¹ 504	7,093	14,510	¹ 3,577	2,557
Less than 0.30.....	11	39,918	38,131	552	32	1,243	2,031	196	3676
0.30-0.39.....	10								
0.40-0.49.....	5								
0.50-0.59.....	5	25,614	19,945	2,155	216	3,915	8,359	1,522	858
0.60-0.69.....	2								
0.70-0.79.....	2								
0.80-0.89.....	2	14,221	3,400	593	49	1,106	2,280	291	926
0.90-0.99.....	2								
1.00 and over.....	8								
Unclassified ²	6	3,780 (³)	1,442 (³)	479 ...	103 ...	829 ...	1,840 ...	674 ...	97 (³)
West, total.....	22	35,306	26,892	759	¹ 198	1,563	3,395	¹ 1,206	3,032
Less than 0.30.....	9	30,040	23,105	490	131	995	2,154	813	2,905
0.30-0.39.....	3	3,721	3,194	203	24	420	917	134	37
0.40-0.49.....	1								
0.70-0.79.....	3								
0.90-0.99.....	1	1,341	488	66	16	148	324	89	86
1.00 and over.....	1								
Unclassified ²	4								

¹Includes figures for employees at central offices. These offices were not classified by ratio of wages and salaries to value added.²Establishments reporting less than \$500 for wages and salaries.³Figures for "unclassified" group are combined with those in the group "less than 0.30." In each case, the figure for the "unclassified" group represents less than one percent of the combined figure.

Table 10.—HORSEPOWER OF POWER EQUIPMENT USED IN THE IRON ORES INDUSTRY, BY GEOGRAPHIC DIVISIONS AND TYPE OF OPERATION: 1954

(For explanation of column captions, see INTRODUCTION)

Geographic division and type of operation	Aggregate horse- power per produc- tion worker	Aggregate horsepower (prime movers and electric motors driven by purchased energy)					Prime movers (horsepower)				
		Total	Loading equipment	Transportation equipment		All other equipment	Total	Loading equipment	By type of equipment		All other equipment
				Highway type	Other				Highway type	Other	
United States, total.....	64	1,795,203	220,102	193,275	744,044	637,782	950,121	82,341	193,275	518,828	155,677
GEOGRAPHIC DIVISION											
Middle Atlantic.....	54	185,030	23,264	20,400	35,995	105,371	28,150	4,217	20,400	2,823	710
North Central.....	67	1,358,756	160,627	135,695	611,587	450,847	803,541	54,585	135,695	472,385	140,876
South.....	48	180,222	26,854	28,194	61,739	63,435	66,317	19,245	28,194	13,214	5,664
West.....	94	71,195	9,357	8,986	34,723	18,129	52,113	4,294	8,986	30,406	8,427
TYPE OF OPERATION											
Producing establishments, total.....	62	1,724,632	213,157	188,477	710,110	612,888	904,189	79,174	188,477	491,485	145,053
Open-pit mines and com- bination open-pit and underground mines ¹	84	1,170,617	140,512	167,736	544,076	318,293	790,203	64,527	167,736	466,957	90,983
Underground mines ¹	40	535,585	71,445	19,196	165,704	279,240	108,766	13,447	19,196	24,198	51,925
Beneficiating and agglom- eration plants only ²	41	18,430	1,200	1,545	330	15,355	5,220	1,200	1,545	330	2,145
Nonproducing establishments..	212	70,571	6,945	4,798	33,934	24,894	45,932	3,167	4,798	27,343	10,524
		Prime movers (horsepower)—Con.		Electric motors (horsepower)							
		By use		By type of equipment				By source of energy			
		Driving generators	Not driving generators	Total	Loading equipment	Transpor- tation equipment	All other equipment	Driven by purchased energy	Driven by energy generated and used at same estab- lishment		
United States, total.....	163,950	786,171	1,023,638	167,285	297,367	558,986	845,082	178,556			
GEOGRAPHIC DIVISION											
Middle Atlantic.....	665	27,485	156,880	19,047	33,172	104,661	156,880	...			
North Central.....	159,232	644,309	730,739	134,353	211,353	385,033	555,215	173,524			
South.....	1,099	65,218	114,184	7,625	48,525	58,034	113,905	279			
West.....	2,954	49,159	21,835	6,260	4,317	11,258	19,082	2,753			
TYPE OF OPERATION											
Producing establishments, total.....	162,890	741,299	998,549	163,257	290,776	544,516	820,443	178,106			
Open-pit mines and com- bination open-pit and underground mines ¹	112,794	677,409	488,693	95,164	128,930	264,599	380,414	108,279			
Underground mines ¹	49,906	58,860	496,646	68,093	161,846	266,707	426,819	69,827			
Beneficiating and agglom- eration plants only ²	190	5,030	13,210	...	...	13,210	13,210	...			
Nonproducing establishments..	1,060	44,872	25,089	4,028	6,591	14,470	24,639	450			

¹Both mines only and mines operated in conjunction with beneficiating or agglomeration plants.²Includes a plant with a nonproducing mine.

Table 11.—NUMBER OF POWER LOADING MACHINES IN THE IRON ORES INDUSTRY IN THE UNITED STATES, 1954 AND 1939, AND BY GEOGRAPHIC DIVISIONS, 1954

Type of loading equipment	United States, total		Middle Atlantic	North Central	South	West
	1954	1939				
Surface loading equipment, total.....	¹ 668	335	44	478	101	45
By kind of power used:						
Steam.....	20	² 181	6	14	...	...
Electric and Diesel-electric.....	295	108	14	263	4	14
Diesel.....	298	46	15	177	84	22
Gasoline and other.....	55	}	9	24	13	9
Power shovels, total.....	551	273	25	442	46	38
By kind of power used:						
Steam.....	14	146	...	14	...	...
Electric and Diesel-electric.....	277	94	11	252	2	12
Diesel.....	220	33	8	159	36	17
Gasoline and other.....	40	}	6	17	8	9
By dipper or bucket capacity (cubic yards):						
Less than 3.....	299	131	16	215	40	28
3-5 inclusive.....	172	129	9	150	4	9
6-12 inclusive.....	80	³ 13	...	77	2	1
Dragline excavators, total.....	61	13	1	26	31	3
By kind of power used:						
Steam.....	...	1	...	...	...	...
Electric and Diesel-electric.....	10	8	...	7	2	1
Diesel.....	41	4	...	12	27	2
Gasoline and other.....	10	}	1	7	2	...
By dipper or bucket capacity (cubic yards):						
Less than 3.....	42	10	...	15	24	3
3-5 inclusive.....	11	3	1	5	5	...
6-12 inclusive.....	7	...	...	5	2	...
More than 12.....	1	...	...	1	...	...
Scraper loaders, total.....	45	36	8	9	24	4
By kind of power used:						
Steam.....	4	⁴ 27	4	...	...	...
Electric and Diesel-electric.....	7	6	2	4	...	1
Diesel.....	31	3	2	5	21	3
Gasoline and other.....	3	}	...	...	3	...
By rated horsepower:						
Less than 10.....	6	17	...	6	...	...
10-25 inclusive.....	12	13	...	3	5	4
26-100 inclusive.....	6	5	6	...	...	...
More than 100.....	21	1	2	...	19	...
Cranes and hoists, total.....	11	13	10	1	...	...
By kind of power used:						
Steam.....	2	7	2	...	...	...
Electric and Diesel-electric.....	1	...	1	...	...	...
Diesel.....	6	5	5	1	...	...
Gasoline and other.....	2	6	2	...	...	...
Underground loading equipment, total.....	2,843	⁵ 1,849	509	2,246	46	42
By kind of power used:						
Compressed air.....	632	121	397	217	13	5
Electric and Diesel-electric.....	2,119	1,728	23	2,026	33	37
Diesel.....	92	...	89	3	...	...
Shovel loaders requiring a minimum working height of 8 feet or less, total.....	237	14	72	152	7	6
By kind of power used:						
Compressed air.....	222	9	68	146	3	5
Electric and Diesel-electric.....	15	5	4	6	4	1
Shovel loaders requiring a minimum working height of more than 8 feet, total.....	42	2	7	16	19	...
By kind of power used:						
Compressed air.....	17	2	7	10	...	...
Electric and Diesel-electric.....	22	...	...	3	19	...
Diesel.....	3	...	...	3	...	...
Scraper loaders (including slushers), total.....	2,564	1,833	430	2,078	20	36
By kind of power used:						
Compressed air.....	393	110	322	61	10	...
Electric and Diesel-electric.....	2,082	1,723	19	2,017	10	36
Diesel.....	89	...	89	...	...	...
By rated horsepower:						
Less than 10.....	335	235	179	124	...	32
10-25 inclusive.....	1,697	1,338	45	1,648	...	4
26-100 inclusive.....	317	260	...	297	20	...
More than 100.....	215	...	206	9	...	...

¹In addition, 110 bulldozers were reported (104 diesel and 6 gasoline).²Includes 27 scraper loaders reported operated by compressed air.³Reported as more than 5 cubic yards.⁴See footnote 2 above.⁵In addition, 88 timber hoists were reported (86 compressed air and 2 electric).

Table 12.—MATERIALS, SUPPLIES, FUELS, AND ELECTRIC ENERGY USED IN THE IRON ORES INDUSTRY, BY GEOGRAPHIC DIVISIONS AND STATES: 1954
(For explanation of line captions, see INTRODUCTION)

Item	Unit of measure for quantity	United States, total		Middle Atlantic		North Central	
		Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Total	
						Quantity	Cost (\$1,000)
Materials beneficiated, total.....	1,000 long tons.	63,059	xxx	10,893	xxx	40,908	xxx
By use:							
Crude ores concentrated ¹.....	....do....	57,529	xxx	10,893	xxx	{ 39,350	xxx
Materials agglomerated, total.....	....do....	5,530	xxx		xxx		xxx
Natural or screened fines.....	....do....	1,094	xxx		(D)		xxx
Concentrate fines, flue dust, and foreign ore.....	....do....	4,436	xxx		(D)		xxx
By source:							
Mined and beneficiated at same establishment.....	....do....	60,392	xxx	(D)	xxx	(D)	xxx
Received from other establishments.....	....do....	2,667	12,837	(D)	(²)	(D)	(²)
Supplies used, total.....		xxx	75,866	xxx	28,356	xxx	260,156
Explosives.....	1,000 pounds.	45,300	7,895	6,456	1,196	30,332	5,260
Steel mill shapes and forms.....	Short tons.	35,703	5,320	3,518	492	30,419	4,571
All other supplies.....		xxx	62,651	xxx	26,668	xxx	250,325
Fuels used, total.....	Million kwh equivalent.	4,944	9,549	1,799	2,221	2,442	6,203
Coal ³	1,000 short tons.	376	3,335	208	1,561	150	1,665
Distillate fuel oil ⁴	1,000 barrels.	852	4,931	129	630	649	3,894
Gas ⁵	Million cu. ft.	1,319	241	...	...	(D)	} 644
Other fuels.....		xxx	1,042	xxx	30	xxx	
Electric energy purchased.....	Million kwh.	984	13,767	238	2,565	564	9,352
Electric energy generated and used.....	....do....	187	xxx	...	xxx	185	xxx
North Central—Continued							
Minnesota				Other States		South and West	
		Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
Materials beneficiated, total.....		39,721	xxx	1,187	xxx	11,258	xxx
By use:							
Crude ores concentrated ¹		38,163	xxx	1,187	xxx	} 11,258	xxx
Materials agglomerated, total.....		1,558	xxx	...	xxx		xxx
Natural or screened fines.....		} 1,558	xxx	...	xxx		xxx
Concentrate fines, flue dust, and foreign ore.....			xxx	...	xxx		xxx
By source:							
Mined and beneficiated at same establishment.....		(D)	xxx	1,187	xxx	(D)	xxx
Received from other establishments.....		(D)	(²)	...	...	(D)	(²)
Supplies used, total.....		xxx	245,964	xxx	14,192	xxx	220,191
Explosives.....		20,433	3,497	9,899	1,763	8,512	1,439
Steel mill shapes and forms.....		14,200	2,104	16,219	2,467	1,766	257
All other supplies.....		xxx	240,363	xxx	9,962	xxx	218,495
Fuels used, total.....		1,919	5,389	523	814	703	1,125
Coal ³		87	992	63	673	18	109
Distillate fuel oil ⁴		633	3,795	16	99	74	407
Gas ⁵		(D)	} 602	...	...	(D)	} 609
Other fuels.....		xxx		xxx	42	xxx	
Electric energy purchased.....		378	6,252	186	3,100	182	1,850
Electric energy generated and used.....		110	xxx	75	xxx	2	xxx

D Withheld to avoid approximately disclosing figures for individual companies. ¹Includes manganiferous iron ore valued chiefly for its iron content and iron ore tailings rebeneficiated. Each of these two types of materials represent less than one percent of the United States total shown. ²The cost of materials received from other establishments for beneficiation is included with the cost of supplies. ³Establishments reporting consumption of bituminous coal or lignite only account for nearly one-half of the United States totals shown. Establishments reporting anthracite only and those reporting both bituminous coal and anthracite, located almost entirely in the Middle Atlantic States, each account for between one-fourth and one-third of the United States totals shown. ⁴Includes 42,000 barrels. at a cost of \$206,000, for establishments reporting consumption of residual fuel only, both distillate and residual fuel oil, or fuel oil unspecified as to type. Establishments reporting residual fuel oil only account for less than one percent of the United States totals shown. ⁵Establishments reporting manufactured or mixed gas, entirely in Minnesota, account for between one-fourth and one-third of the figures shown for gas consumption.

Table 13.—WATER USE IN THE IRON ORES INDUSTRY IN THE UNITED STATES, BY GEOGRAPHIC DIVISIONS AND STATES AND BY TYPE OF OPERATION: 1954

(For explanation of column captions, see INTRODUCTION)

Geographic division, State, and type of operation	Number of production and development workers	Value added in mining (\$1,000)	Water intake (except mine water)			Water discharged (except mine water) (million gallons)	Mine water (million gallons)	
			Million gallons	Million gallons per production worker ¹	Gallons per dollar value added		Used	Drained and discharged
United States, total.....	28,216	435,668	20,890	0.74	48	15,891	5,965	50,620
GEOGRAPHIC DIVISION AND STATE								
Middle Atlantic.....	3,437	28,512	3,902	1.14	137	3,454	803	2,638
North Central, total.....	20,241	347,346	7,442	0.37	21	4,796	4,639	45,379
Michigan.....	6,514	59,050	1,155	0.18	20	474	416	10,297
Minnesota.....	12,520	278,064	6,110	0.49	22	4,160	4,223	34,261
Other States.....	1,207	10,232	177	0.15	17	162	...	821
South, total.....	3,779	32,918	9,443	2.50	287	7,591	523	2,553
Alabama.....	3,370	27,060	2,760	0.82	102	1,755	523	2,538
Other States.....	409	5,858	6,683	16.34	1,141	5,836	...	15
West.....	759	26,892	103	0.14	4	50	...	50
TYPE OF OPERATION								
Producing establishments, total.....	27,883	437,769	20,885	0.75	48	15,888	5,965	47,058
Mines only, total ³	11,825	142,287	765	0.06	5	649	189	20,235
Open-pit mines and combination open-pit and underground mines ³	1,642	54,882	137	0.08	2	122	5	7,907
Underground mines ³	10,183	87,405	628	0.06	7	527	184	12,328
Mines with beneficiating plants, total.....	15,612	291,735	19,400	1.24	66	15,008	5,766	26,813
Open-pit mines and combination open-pit and underground mines.....	12,327	260,737	18,239	1.48	70	14,544	5,146	24,981
Underground mines.....	3,285	30,998	1,161	0.35	37	464	620	1,832
Beneficiating plants only ⁴	446	3,747	720	1.61	192	231	10	10
Beneficiating plants (with or without mines), by principal beneficiating method:								
Log washing.....	5,794	127,874	6,558	1.13	51	5,476	1,685	12,724
Jigging.....	262	2,583	148	0.56	57	134	110	93
Heavy density separation.....	2,031	45,356	2,985	1.47	66	1,458	2,496	6,604
Magnetic separation.....	972	15,068	208	0.21	14	103	453	568
Agglomeration ⁵	6,680	97,431	9,091	1.36	93	7,745	558	5,032
Flotation, spirals, and other ⁶	319	7,170	1,130	3.54	158	323	474	1,802
Nonproducing establishments.....	333	(7)	5	0.02	(7)	3	...	3,562
Percent of total water intake (except mine water) by principal source								
	Gross water use, including recirculation (million gallons)	Public water systems	Company surface water systems	Company ground water systems	Combined public water and company surface water systems	Combined company surface and ground water systems	Not specified	
United States, total.....	59,666	18	75	5	1	(2)	1	
GEOGRAPHIC DIVISION AND STATE								
Middle Atlantic.....	12,643	...	91	1	8	...	...
North Central, total.....	31,202	43	45	12	(2)	...	(2)	
Michigan.....	4,337	47	51	2	...	...	...
Minnesota.....	26,044	43	42	15	(2)	...	(2)	
Other States.....	821	2	97	1	...	...	...
South, total.....	15,578	6	92	(2)	...	1	1	
Alabama.....	5,208	20	77	(2)	...	...	1	
Other States.....	10,370	...	98	...	...	1	1	
West.....	243	...	23	69	...	...	8	
TYPE OF OPERATION								
Producing establishments, total.....	59,650	18	75	5	1	(2)	1	
Mines only, total ³	2,154	79	1	19	...	...	1	
Open-pit mines and combination open-pit and underground mines ³	142	9	1	84	...	...	6	
Underground mines ³	2,012	94	2	4	...	...	...
Mines with beneficiating plants, total.....	55,603	15	78	5	1	(2)	1	
Open-pit mines and combination open-pit and underground mines.....	46,245	14	80	5	(2)	(2)	1	
Underground mines.....	9,358	25	46	2	27	...	...
Beneficiating plants only ⁴	1,893	32	68	...	...	...	...
Beneficiating plants (with or without mines), by principal beneficiating method:								
Log washing.....	18,418	3	87	7	...	1	2	
Jigging.....	1,239	1	99	...	...	...	(2)	
Heavy density separation.....	12,763	42	54	4	(2)	...	...
Magnetic separation.....	1,009	...	62	38	...	...	...
Agglomeration ⁵	21,004	18	75	3	4	...	...
Flotation, spirals, and other ⁶	3,063	(2)	99	1	...	...	...
Nonproducing establishments.....	16	40	60	...	...	...	...

¹For computations of water intake per production worker, including mine water, see tables 3 and 4. ²Less than 0.5 percent. ³Includes mines with nonproducing plants. ⁴Includes a plant with a nonproducing mine. ⁵See table 4, footnote 9. ⁶See table 4, footnote 10. ⁷See table 4, footnote 6.

Copper, Lead, Zinc, Gold, and Silver Ores

10C-1

Copper, Lead, Zinc, Gold, and Silver Ores

This report shows 1954 Census of Mineral Industries statistics for the United States for establishments classified in Industry Groups 102, Copper Ores; 103, Lead and Zinc Ores; and 104, Gold and Silver Ores. These groups comprise establishments primarily engaged in mining, milling, or otherwise preparing copper, lead, zinc, gold, or silver ores, or in recovering gold from placer deposits. Statistics in Tables 1, 5, and 6 of this report are published by industry; the remaining tables show combined figures for the copper, lead, zinc, gold, and silver ores industries as a group. More complete statistics for each industry and a description of the types of establishments classified in each are provided in the following separate reports:

Report	Industries Covered
MI-10D--Copper Ores	1021--Copper Ores
MI-10E--Lead and Zinc Ores	1032--Lead Ores
	1033--Zinc Ores
	1034--Lead-Zinc Ores
MI-10F--Gold	1042--Lode Gold
	1043--Placer Gold
MI-10G--Silver Ores	1044--Silver Ores

Establishments were classified by industry on the basis of the relative value of the recoverable metals contained in the products of the establishment. For example, establishments were classified in the copper ores industry if the estimated value of the recoverable copper content of minerals produced or shipped was greater than for any of the other metals contained. For industrial classification purposes, estimated unit values of metals, f.o.b. mine or mill, were derived by subtracting from their average market prices in 1954 estimated smelting, refining, and transportation costs. These unit values, shown in the table below, were applied to the metal content of minerals reported to determine the metal of principal value and thus provide a basis for classifying the establishment. The recoverable content was used in this computation in all instances except for shipments of milling-grade ores; recoverable content figures were not available for such ores. Deviations of ten percent in the estimated unit values shown in the table below would have resulted in changes of industry classification for establishments accounting for less than one percent of the total value of shipments for the copper, lead, zinc, gold, and silver ores industries combined. Such changes in classification would have affected primarily shifts between the silver ores industry and the lead-zinc ores industry. Shifts also would have resulted within the lead-zinc ores industry between establishments whose products were valued chiefly for the lead con-

tained and those whose products were valued chiefly for the zinc contained.

The copper, gold, and silver ores industries were similarly defined for 1954 and for 1939, the year covered by the preceding Census of Mineral Industries. However, for 1939, lead and zinc ores operations were classified in either of two industries, the lead ores industry if lead was the metal of principal value or the zinc ores industry if zinc was the metal of principal value. No separate lead-zinc ores industry was provided. The revised classification for 1954, which provided separately for establishments producing ores containing only lead or only zinc, proved unsatisfactory since nearly 90 percent of the tonnage of ores mined in the three industries was accounted for by the lead-zinc ores industry. This classification will probably not be used in the future. In the tables of this report in which separate industry statistics are shown, the data have been grouped in a manner comparable with 1939. This was accomplished by combining reports for establishments in the lead ores industry with those in the lead-zinc ores industry whose products were valued chiefly for the lead contained and by similarly combining reports for establishments in the zinc ores industry with those in the lead-zinc ores industry whose products were valued chiefly for the zinc contained.

Changes in industry classification between 1939 and 1954 have resulted for specific establishments from changes in the metal content of the ores mined or milled at the establishment and from differences, for the various metals, in the increase in unit values between the two years. For example, the increase in the value of lead and zinc between 1939 and 1954 was proportionately much greater than for silver. Consequently, some operations in the silver ores industry in 1939 have been classified in the lead and zinc ores industries in 1954. To a somewhat greater extent than in 1939, separate reports were filed in 1954 for mines and for associated mills. This factor affects the comparability of some of the statistics for the two years, such as the quantity and value of milling ores shipped and the classification of operations by employment size.

The total value of shipments of the copper, lead, zinc, gold, and silver ores industries amounted to \$731 million in 1954. Of this total, the copper ores industry accounted for \$509 million; the lead and zinc ores industries, \$176 million; the lode gold and placer gold industries, \$34 million; and the silver ores industry, \$12 million. These figures contain some duplication since they include the value of milling ores shipped to mills for concentration, amounting to \$136 million for the group of industries, as well as the value of shipments of concentrates produced from such ores. Net shipments in 1954 for this group of industries amounted to \$595 million and consisted primarily of concentrates, mill bullion, and precipitates from lode operations (a total of \$526 million for such products). Shipments of ores for direct processing at smelters and refineries, without prior milling, and of gold from placer gravels were valued at \$37 million and \$6 million, respectively. The value of products, other than materials valued chiefly for their copper, lead, zinc, gold, or silver contents, and of receipts for services amounted to \$26 million. This chiefly represented molybdenum concentrates reported by copper ores establishments.

Table 5 shows the total recoverable copper, lead, zinc, gold, and silver contained in the products of all mineral industries, and the totals for specified industries. More than 95 percent of the recoverable copper was accounted for by the copper ores industry and of lead and zinc by the lead and zinc ores industries. In contrast, only about 60 percent of the recoverable gold was reported by establishments in the gold industries, and only about one-third of the silver, by the silver ores industry.

Estimated Unit Values of Metal Content of Ores, Concentrates, Mill Bullion, and Precipitates
(F.o.b. mine or mill)

Metal	Unit of measure ¹	Unit values			
		Ores ²	Concentrates	Mill bullion and precipitates	Copper precipitates
Copper....	Pound.....	23¢	24¢	xxx	25¢
Lead.....	Pound.....	11¢	11 1/2¢	xxx	xxx
Zinc.....	Pound.....	6¢	6 1/2¢	xxx	xxx
Gold.....	Fine ounce	\$32	\$33	\$35	xxx
Silver....	Fine ounce	80¢	81¢	85¢	xxx

¹Gross content for milling ores shipped; recoverable content for all other products.

²Also used for old tailings.

The report forms used for the copper, lead, zinc, gold, and silver ores industries by the Bureau of the Census also provided information required by the Bureau of Mines for its annual statistics on such ores. The Bureau of Mines statistics are, in general, comparable with the Census figures shown in this report. Figures published by the Bureau of Mines on the recoverable metal content of mineral products are shown in the summary table below. As indicated in this table, some small differences occur in the statistics published by the two bureaus. These arise principally from differences in methods followed and objectives sought by these two Bureaus in compiling and pre-

senting the statistics. The figures for copper, gold, and silver differ by less than one percent. The differences for lead and zinc are somewhat greater and are almost entirely due to the inclusion by the Bureau of Mines of lead and zinc recovered at smelters from old slag and smelter cleanings if this material was not included in their statistics for earlier years. The Census statistics, on the other hand, include only the metals recoverable from ores mined or milled in 1954. Other reasons for differences in the statistics on products published by the two bureaus are discussed in detail in the separate industry reports.

Recoverable Content of Copper, Lead, Zinc, Gold, and Silver in Products of All Mineral Industries,
for the United States: 1954

(Exclusive of Alaska)

Metal	Unit of measure for quantity	As published by the Bureau of the Census	As published by the Bureau of Mines	Bureau of Mines figure minus Bureau of the Census figure	Bureau of the Census figure as percent of Bureau of Mines figure
Copper.....	1,000 pounds.....	1,670,680	1,670,944	264	99.98
Lead.....	....do.....	643,530	650,838	7,308	98.88
Zinc.....	....do.....	911,479	946,942	35,463	96.25
Gold.....	1,000 fine ounces	1,584.3	1,588.8	4.5	99.72
Silver.....	....do.....	36,670	36,908	238	99.36

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 1.—COMPARATIVE STATISTICS FOR THE COPPER, LEAD, ZINC, GOLD, AND SILVER ORES INDUSTRIES IN THE UNITED STATES
(For explanation of line captions and for statement on the minimum)

Item	1954				
	All industries, total	Copper ores	Lead and zinc ores		Lode gold
			Valued chiefly for lead	Valued chiefly for zinc	
1 Number of operating companies.....	1,110	179	302	118	286
2 Number of establishments.....	1,265	210	343	177	298
3 Number of mines.....	1,220	201	332	159	291
4 Number of mills and washing plants.....	464	48	78	63	135
5 Crude ore mined.....1,000 short tons..	112,280	90,992	9,698	8,828	2,248
6 Direct-smelting ores shipped, including leaching ores and old tailings shipped to smelters.....do....	4,674	4,056	165	286	67
7 Crude ore and old tailings milled.....do....	110,938	188,390	10,630	9,311	2,197
8 Copper, lead, zinc, gold, and silver concentrates produced.....do....	4,157	2,770	569	793	4
9 Placer gold shipped.....1,000 fine ounces..	169.1	...	...	...	...
10 Value of shipments, total ²¹.....\$1,000..	731,257	508,729	94,874	81,073	28,517
11 Milling ores.....do....	136,355	98,818	17,673	18,142	1,625
12 Net shipments, total ²¹.....do....	594,902	409,911	77,201	62,931	26,892
13 Direct-smelting ores, leaching ores, and old tailings.....do....	37,392	29,278	76,449	62,152	757
14 Copper, lead, zinc, gold, and silver concentrates, copper precipitates, and gold bullion.....do....	525,914	356,497			
15 Placer gold.....do....	5,898	...	...	...	...
16 Other products and services.....do....	25,698	24,136	752	779	10
17 Value added in mining.....do....	477,639	334,876	62,713	44,696	21,884
18 Number of persons engaged, total.....	50,383	27,997	9,038	7,978	3,300
19 Production and development workers.....	39,336	21,544	7,156	6,436	2,634
20 All other employees.....	9,874	6,269	1,564	1,410	386
21 Proprietors and firm members.....	1,173	184	318	132	280
22 Performing manual labor.....	922	145	257	86	223
23 Man-hours worked by production and development workers, total.....1,000..	83,593	46,676	14,654	12,900	5,894
24 At mines, total.....do....	67,529	36,219	12,700	10,183	5,120
25 Underground.....do....	37,156	13,880	10,273	8,084	3,271
26 Open-pit and surface mining and stripping and on floating equipment.....do....	12,360	11,174	101	38	115
27 Other surface (including mine shops and yards).....do....	18,013	11,165	2,416	2,061	1,734
28 At mills and washing plants.....do....	16,064	10,457	1,864	2,717	774
29 Principal expenses designated below, total ³¹.....\$1,000..	547,720	368,307	73,445	72,034	20,169
30 Wages of production and development workers.....do....	169,573	98,491	29,549	24,127	10,406
31 Salaries of all other employees.....do....	58,473	37,574	9,453	8,234	1,863
32 Crude ore and old tailings received for milling.....do....	137,088	100,693	14,197	20,919	1,274
33 Supplies.....do....	106,233	72,822	12,790	11,883	5,017
34 Fuel.....do....	10,907	8,576	600	809	569
35 Purchased electric energy.....do....	14,768	6,278	4,027	2,811	720
36 Contract work.....do....	50,678	43,873	2,829	3,251	320
37 Purchased machinery installed.....do....	31,421	23,821	2,878	3,064	910
38 Capital expenditures, total.....do....	97,477	82,210	5,160	6,360	2,177
39 Development and exploration of mineral property.....do....	32,063	23,750	3,229	3,280	1,037
40 Mill and washing plant construction.....do....	15,166	13,477	729	1,325	370
41 Other construction.....do....	22,933	21,788			
42 New machinery and equipment.....do....	25,175	21,955	925	1,584	386
43 Used plant and equipment.....do....	2,140	1,240	277	171	190
44 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	2,506,850	1,545,632	423,204	326,413	111,868
45 Per production worker.....	64	72	59	51	42
46 Prime movers.....	1,309,951	1,031,312	94,209	74,953	63,906
47 Electric motors driven by purchased energy.....	1,196,899	514,320	328,995	251,460	47,962
48 Horsepower rating of electric motors driven by energy generated at the establishment.....	485,879	399,977	23,064	7,879	49,571
49 Energy used.....million kwh equivalent..	11,786	9,255	749	892	639
50 Coal.....1,000 short tons..	292	179	13	37	62
51 Fuel oils.....1,000 barrels..	465	301	35	48	24
52 Natural gas.....million cu. ft..	21,549	20,559	273	649	68
53 Electric energy purchased.....million kwh..	1,759	815	456	303	63
54 Electric energy generated and used.....do....	1,302	1,194	27	8	62

See footnotes at end of table.

STATES, BY INDUSTRY: 1954, 1939, 1935, 1929, 1919, 1909, 1902, 1889, 1880, 1870, 1860, and 1850

size of establishments included for each year, see INTRODUCTION)

1954—Continued		1939							1935 all industries	
Placer gold	Silver ores	All industries, total	Copper ores	Lead ores	Zinc ores	Lode gold	Placer gold	Silver ores		
131	98	1,529	35	72	143	851	307	153	(NA)	1
136	101	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	2
136	101	1,698	51	86	174	872	340	166	12,198	3
116	24	855	27	31	93	333	339	32	(NA)	4
xxx	514	81,605	52,118	6,979	9,339	11,343	xxx	1,826	(NA)	5
xxx	100	3,099	151,658	143	60	503	xxx	735	(NA)	6
xxx	410	88,102	51,571	7,098	16,925	11,406	xxx	1,102	(NA)	7
xxx	21	4,271	2,105	675	1,286	154	xxx	51	(NA)	8
169.1	...	824.6	...	...	...	...	824.6	...	(NA)	9
5,916	12,148	360,499	145,590	34,517	38,131	92,942	28,027	21,292	(NA)	10
xxx	97	22,407	3,956	3,050	6,947	6,878	xxx	1,576	(NA)	11
5,916	12,051	338,092	141,634	31,467	31,184	86,064	28,027	19,716	206,001	12
xxx	584	35,159	17,848	1,651	893	6,352	xxx	8,415	203,040	13
10	11,454	2267,813	117,869	29,531	29,749	79,455	(22)	11,209		14
5,898	...	2227,992	...	...	...	xxx	2227,992	...		15
8	13	7,128	5,917	285	542	257	35	92		16
3,614	9,856	260,566	108,494	24,277	23,033	66,523	21,935	16,340	151,929	17
729	1,341	73,089	26,752	8,086	9,728	19,800	3,965	4,712	2462,206	18
501	1,065	64,683	23,844	7,041	8,690	17,591	3,228	4,256	57,457	19
55	190	7,426	2,908	1,011	983	1,663	477	371	244,749	20
173	86	980	...	34	55	546	260	85	21	21
145	66	707	...	22	26	420	167	72		22
1,255	2,214	142,459	51,239	14,194	18,287	41,522	8,088	9,055		23
1,212	2,005	28115,287	2839,708	2811,912	2812,808	2834,500	298,088	288,287	(NA)	24
21	1,627	3076,775	3021,922	309,616	3011,253	3026,304	(29)	306,888	26	25
907	25	3017,078	307,838	...	30112	301,086	298,088	3039		26
284	353	3021,434	3089,948	302,201	301,366	306,439	(29)	301,340		27
43	209	2824,812	2810,677	281,624	285,025	286,782	(29)	28703		28
4,815	8,950	190,575	75,704	20,031	20,647	50,916	12,886	10,295	24123,760	29
1,997	5,003	93,737	34,486	9,979	10,274	27,304	5,632	6,017	59,947	30
314	1,035	19,312	8,078	2,862	2,222	4,071	1,162	902	249,741	31
xxx	5	(NA)	(NA)	(NA)	(NA)	(NA)	xxx	(NA)	(NA)	32
1,554	2,167	54,201	23,562	4,916	5,664	13,757	3,780	2,504	40,814	33
248	105	7,315	4,168	271	577	1,417	700	178	3,991	34
661	271	13,845	4,899	1,854	1,696	3,347	1,471	574	9,267	35
41	364	2,165	511	149	214	1,020	141	120	(NA)	36
302	446	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	37
504	1,066	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	38
180	587	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	39
34	145	4,237	1,822	156	234	1,726	135	164	(NA)	40
18	19									41
121	204									42
151	111									43
63,968	35,765	1,551,337	752,707	194,043	158,705	291,232	110,434	43,645	(NA)	44
128	34	24	32	28	18	17	34	10	(NA)	45
28,667	16,904	598,710	324,327	20,625	59,182	126,772	52,526	14,797	(NA)	46
35,301	18,861	952,627	428,380	173,418	99,523	164,460	57,908	28,848	(NA)	47
4,456	932	267,905	184,507	2,630	22,101	49,128	3,722	5,817	(NA)	48
170	81	10,590	6,693	545	1,011	1,624	510	206	(NA)	49
...	1	566	360	28	62	110	1	5	(NA)	50
46	11	982	537	26	77	170	144	28	(NA)	51
...	...	7,993	7,067	126	594	183	23	...	(NA)	52
79	43	1,879	789	246	206	343	190	105	(NA)	53
10	1	588	417	5	44	90	18	14	(NA)	54

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 1.—COMPARATIVE STATISTICS FOR THE COPPER, LEAD, ZINC, GOLD, AND SILVER ORES INDUSTRIES IN THE UNITED

(For explanation of line captions and for statement on the minimum

Item	1929 ²						
	All industries, total	Copper ores	Lead ores	Zinc ores	Lode gold	Placer gold	Silver ores
1 Number of operating companies.....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
2 Number of establishments.....	1,502	143	155	148	174	32	67
3 Number of mines.....	1,676	180	171	204	184	37	74
4 Number of mills and washing plants.....	(NA)	45	67	121	1175	(NA)	19
5 Crude ore mined.....1,000 short tons..	(NA)	(NA)	(NA)	(NA)	(NA)	xxx	(NA)
6 Direct-smelting ores shipped, including leaching ores and old tailings shipped to smelters.....do....	(NA)	(NA)	(NA)	(NA)	(NA)	xxx	(NA)
7 Crude ore and old tailings milled.....do....	(NA)	(NA)	(NA)	(NA)	(NA)	xxx	(NA)
8 Copper, lead, zinc, gold, and silver concentrates produced.....do....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
9 Placer gold shipped.....1,000 fine ounces..	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
10 Value of shipments, total ²¹.....\$1,000..	(NA)	(NA)	(NA)	(NA)	(NA)	3,779	(NA)
11 Milling ores.....do....	(NA)	(NA)	(NA)	(NA)	(NA)	xxx	(NA)
12 Net shipments, total ²¹.....do....	425,831	283,517	67,562	44,866	17,650	3,779	8,457
13 Direct-smelting ores, leaching ores, and old tailings.....do....	419,047	282,058	66,720	44,200	17,631	xxx	8,437
14 Copper, lead, zinc, gold, and silver concentrates, copper precipitates, and gold bullion.....do....						1	
15 Placer gold.....do....						3,770	
16 Other products and services.....do....						8	
17 Value added in mining.....do....	322,000	221,690	51,738	33,055	11,713	2,582	5,891
18 Number of persons engaged, total.....	2591,445	48,043	15,004	12,799	5,885	686	2,838
19 Production and development workers.....	84,185	44,502	14,007	11,900	5,353	578	2,593
20 All other employees.....	256,974	3,465	944	874	443	90	220
21 Proprietors and firm members.....	286	76	53	25	89	18	25
22 Performing manual labor.....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
23 Man-hours worked by production and development workers, total.....1,000..	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
24 At mines, total.....do....							
25 Underground.....do....							
26 Open-pit and surface mining and stripping and on floating equipment.....do....							
27 Other surface (including mine shops and yards).....do....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
28 At mills and washing plants.....do....							
29 Principal expenses designated below, total ³¹.....\$1,000..	25257,422	145,163	41,287	30,592	15,724	2,427	7,500
30 Wages of production and development workers.....do....	133,549	73,200	22,917	16,274	8,656	970	4,327
31 Salaries of all other employees.....do....	2520,042	10,136	2,546	2,507	1,131	260	607
32 Crude ore and old tailings received for milling.....do....	(NA)	(NA)	(NA)	(NA)	(NA)	xxx	(NA)
33 Supplies.....do....	3272,724	43,995	10,378	7,966	4,113	590	1,821
34 Fuel.....do....	3211,305	9,210	681	855	436	1	122
35 Purchased electric energy.....do....	3214,050	6,027	3,733	2,369	832	604	485
36 Contract work.....do....	5,752	2,595	1,032	621	556	2	138
37 Purchased machinery installed.....do....	20,506	13,084	1,904	1,848	1,085	359	424
38 Capital expenditures, total.....do....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
39 Development and exploration of mineral property.....do....	47,544	22,151	5,666	2,506	3,739	76	1,902
40 Mill and washing plant construction.....do....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
41 Other construction.....do....							
42 New machinery and equipment.....do....							
43 Used plant and equipment.....do....	1,241,182	701,791	194,380	163,357	69,829	20,280	28,943
44 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....							
45 Per production worker.....							
46 Prime movers.....							
47 Electric motors driven by purchased energy.....	705,246	334,928	156,146	107,528	38,343	19,691	19,394
48 Horsepower rating of electric motors driven by energy generated at the establishment.....	328,733	270,205	16,422	17,206	22,211	25	2,664
49 Energy used.....million kwh equivalent..	16,363	12,200	1,627	1,337	997	69	133
50 Coal.....1,000 short tons..	1,380	1,006	136	114	119	...	5
51 Fuel oils.....1,000 barrels..	2,245	2,134	23	48	12	...	28
52 Natural gas.....million cu. ft..	922	...	132	784	6	...	...
53 Electric energy purchased.....million kwh..	1,566	758	448	197	52	68	43
54 Electric energy generated and used.....do....	905	735	51	55	57	...	7

See footnotes at end of table.

STATES, BY INDUSTRY: 1954, 1939, 1935, 1929, 1919, 1909, 1902, 1889, 1880, 1870, 1860, and 1850—Continued
size of establishments included for each year, see INTRODUCTION)

1919 ²					1909 ³					
All industries, total	Copper ores	Lead and zinc ores	Lode gold and silver ores	Placer gold	All industries, total	Copper ores	Lead and zinc ores ⁴	Lode gold and silver ores ⁴	Placer gold	
(NA)	(NA)	(NA)	(NA)	(NA)	6,706	174	1,040	4,682	810	1
1,979	195	432	740	112	6,745	201	1,040	4,694	810	2
2,142	226	473	799	132	13,863	381	1,213	11,197	1,072	3
12,512	57	262	191	122	(NA)	(NA)	(NA)	(NA)	(NA)	4
¹³ 61,839	(NA)	(NA)	(NA)	xxx	(NA)	(NA)	(NA)	(NA)	xxx	5
(NA)	(NA)	(NA)	(NA)	xxx	(NA)	(NA)	(NA)	(NA)	xxx	6
(NA)	(NA)	(NA)	(NA)	xxx	(NA)	(NA)	(NA)	(NA)	xxx	7
(NA)	(NA)	(NA)	(NA)	xxx	(NA)	(NA)	(NA)	(NA)	xxx	8
464.0	(NA)	(NA)	(NA)	464.0	(NA)	(NA)	(NA)	(NA)	(NA)	9
325,038	181,258	75,579	58,832	9,369	260,103	134,617	31,363	83,886	10,237	10
6,602	1,528	406	4,668	...	18,996	10,597	1,947	6,452	...	11
318,436	179,730	75,173	54,164	9,369	241,107	124,020	29,416	77,434	10,237	12
										13
317,131	179,006	74,889	53,935	9,301	241,107	124,020	29,416	77,434	10,237	14
1,305	724	284	229	68						15
										16
219,401	130,167	53,623	35,927	5,847	162,587	86,078	21,855	47,566	7,088	17
94,876	46,999	24,030	17,531	1,651	127,252	54,538	19,914	47,973	4,827	18
86,108	43,717	21,884	15,436	1,380	111,687	52,330	16,962	39,009	3,386	19
7,286	3,179	1,734	1,383	149	7,167	2,129	882	3,818	338	20
1,482	103	412	712	122	8,398	79	2,070	5,146	1,103	21
827	62	186	485	77	3,849	42	1,199	1,832	776	22
										23
										24
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	25
										26
										27
										28
250,677	125,521	56,499	49,729	5,873	212,910	102,203	21,184	82,979	6,544	29
128,467	66,390	30,708	23,818	1,914	104,290	49,858	10,564	40,955	2,913	30
16,573	8,040	3,835	3,006	437	11,104	3,806	1,112	5,704	482	31
6,602	1,528	406	4,668	...	18,996	10,597	1,947	6,452	...	32
69,557	34,275	15,312	13,041	2,245	50,219	23,886	4,875	19,118	2,340	33
16,218	11,310	2,783	1,623	20	22,562	13,399	2,425	6,056	682	34
10,012	3,556	2,592	2,336	1,124						35
3,248	422	863	1,237	133						36
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	37
(NA)	(NA)	(NA)	(NA)	(NA)						38
38,002	13,302	4,269	7,863	201						39
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	40
										41
										42
										43
981,229	523,591	229,541	149,680	35,632	787,226	380,712	114,045	260,190	32,279	44
11	12	10	10	26	7	7	7	7	10	45
579,282	386,458	117,527	50,437	3,406	637,511	328,126	110,577	185,417	13,391	46
401,947	137,133	112,014	99,243	32,226	149,715	52,586	3,468	74,773	18,888	47
204,170	161,024	22,884	18,892	601	57,651	27,024	12,108	17,107	1,412	48
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	49
2,135	1,381	541	192	1						50
1,552	1,322	73	130	...						51
1,447	33	1,390	...	...	(NA)	(NA)	(NA)	(NA)	(NA)	52
(NA)	(NA)	(NA)	(NA)	(NA)						53
(NA)	(NA)	(NA)	(NA)	(NA)						54

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 1.—COMPARATIVE STATISTICS FOR THE COPPER, LEAD, ZINC, GOLD, AND SILVER ORES INDUSTRIES IN THE UNITED

(For explanation of line captions and for statement on the minimum

Item	1902				
	All industries, total	Copper ores	Lead and zinc ores ⁴	Lode gold and silver ores ^{4 5}	Placer gold ⁵
1 Number of operating companies.....	6,985	159	582	5,269	975
2 Number of establishments.....	(NA)	(NA)	(NA)	(NA)	(NA)
3 Number of mines.....	6,987	159	584	5,269	975
4 Number of mills and washing plants.....	(NA)	(NA)	541	640	(NA)
5 Crude ore mined.....1,000 short tons..	(NA)	11,780	(NA)	149,788	xxx
6 Direct-smelting ores shipped, including leaching ores and old tailings shipped to smelters.....do....	(NA)	4,905	(16)	171,558	xxx
7 Crude ore and old tailings milled.....do....	(NA)	206,559	(NA)	8,445	xxx
8 Copper, lead, zinc, gold, and silver concentrates produced.....do....	(NA)	(NA)	16624	(NA)	xxx
9 Placer gold shipped.....1,000 fine ounces..	259.1	...	...	...	259.1
10 Value of shipments, total ²¹.....\$1,000..	154,347	51,198	14,673	83,148	5,328
11 Milling ores.....do....	6,087	20	73	5,994	...
12 Net shipments, total ²¹.....do....	148,260	51,178	14,600	77,154	5,328
13 Direct-smelting ores, leaching ores, and old tailings.....do....	142,935	51,178	14,600	77,154	xxx
14 Copper, lead, zinc, gold, and silver concentrates, copper precipitates, and gold bullion.....do....					3
15 Placer gold.....do....					5,325
16 Other products and services.....do....					(NA)
17 Value added in mining.....do....	109,819	39,770	11,953	53,579	4,517
18 Number of persons engaged, total.....	2690,127	2627,572	268,886	2651,073	262,596
19 Production and development workers.....	82,166	26,309	7,952	45,584	2,321
20 All other employees.....	7,961	1,263	934	5,489	275
21 Proprietors and firm members.....	(NA)	(NA)	(NA)	(NA)	(NA)
22 Performing manual labor.....	(NA)	(NA)	(NA)	(NA)	950
23 Man-hours worked by production and development workers, total.....1,000..	(NA)	(NA)	(NA)	(NA)	(NA)
24 At mines, total.....do....					
25 Underground.....do....					
26 Open-pit and surface mining and stripping and on floating equipment.....do....					
27 Other surface (including mine shops and yards).....do....					
28 At mills and washing plants.....do....	127,982	34,597	7,935	82,496	2,954
29 Principal expenses designated below, total ³¹.....\$1,000..					
30 Wages of production and development workers.....do....					
31 Salaries of all other employees.....do....					
32 Crude ore and old tailings received for milling.....do....					
33 Supplies.....do....					
34 Fuel.....do....					
35 Purchased electric energy.....do....					
36 Contract work.....do....	2,475	189	117	2,149	20
37 Purchased machinery installed.....do....	(NA)	(NA)	(NA)	(NA)	(NA)
38 Capital expenditures, total.....do....					
39 Development and exploration of mineral property.....do....					
40 Mill and washing plant construction.....do....					
41 Other construction.....do....					
42 New machinery and equipment.....do....	492,218	198,507	41,901	240,517	11,293
43 Used plant and equipment.....do....					
44 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....					
45 Per production worker.....					
46 Prime movers.....	471,206	196,171	41,702	225,547	7,786
47 Electric motors driven by purchased energy.....	21,012	2,336	199	14,970	3,507
48 Horsepower rating of electric motors driven by energy generated at the establishment.....	38,362	2,312	1,475	30,330	4,245
49 Energy used.....million kwh equivalent..	(NA)	(NA)	(NA)	(NA)	(NA)
50 Coal.....1,000 short tons..					
51 Fuel oils.....1,000 barrels..					
52 Natural gas.....million cu. ft..					
53 Electric energy purchased.....million kwh..	(NA)	(NA)	(NA)	(NA)	(NA)
54 Electric energy generated and used.....do....					

See footnotes at end of table.

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[illegible]

Table 1.—COMPARATIVE STATISTICS FOR THE COPPER, LEAD, ZINC, GOLD, AND SILVER ORES INDUSTRIES IN THE UNITED STATES, BY INDUSTRY: 1954, 1939, 1935, 1929, 1919, 1909, 1902, 1889, 1880, 1870, 1860, and 1850—Continued

(For explanation of line captions and for statement on the minimum size of establishments included for each year, see INTRODUCTION)

Item	1870 ³							1860 ³				
	All industries, total	Copper ores	Lead ores	Zinc ores	Lode gold ¹⁰	Placer gold ¹⁰	Silver ores	All industries, total	Copper ores	Lead and zinc ores	Lode and placer gold ¹⁰	Silver ores
Number of operating companies.....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Number of establishments.....	2,544	40	112	15	281	1,994	102	7,298	47	43	7,202	6
Number of mines.....												
Number of mills and washing plants.....												
Crude ore mined.....1,000 short tons..												
Direct-smelting ores shipped, including leaching ores and old tailings shipped to smelters.....do....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Crude ore and old tailings milled..do....												
Copper, lead, zinc, gold, and silver concentrates produced.....do....												
Placer gold shipped...1,000 fine ounces..												
Value of shipments, total ²¹.....\$1,000..	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	51,974	3,361	410	47,163	1,040
Milling ores.....do....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)					
Net shipments, total ²¹.....do....	33,179	5,201	736	789	13,429	9,775	3,249					
Direct-smelting ores, leaching ores, and old tailings.....do....								(NA)	(NA)	(NA)	(NA)	(NA)
Copper, lead, zinc, gold, and silver concentrates, copper precipitates, and gold bullion.....do....	33,179	5,201	736	789	13,429	9,775	3,249					
Placer gold.....do....												
Other products and services..do....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)					
Value added in mining.....do....	28,450	4,614	698	749	11,713	7,917	2,759	34,575	2,854	179	30,601	941
Number of persons engaged, total.....	24,026	5,404	1,126	588	5,411	10,441	1,056	49,977	5,153	249	44,316	259
Production and development workers....	24,026	5,404	1,126	588	5,411	10,441	1,056	49,977	5,153	249	44,316	259
All other employees.....do....												
Proprietors and firm members.....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Performing manual labor.....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Man-hours worked by production and development workers, total.....1,000..												
At mines, total.....do....												
Underground.....do....												
Open-pit and surface mining and stripping and on floating equipment.....do....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Other surface (including mine shops and yards).....do....												
At mills and washing plants.....do....												
Principal expenses designated below, total ³¹.....\$1,000..	16,833	3,293	389	290	6,292	5,237	1,332	42,990	2,323	292	40,224	151
Wages of production and development workers.....do....	12,104	2,706	351	250	4,576	3,379	842	25,591	1,816	61	23,662	52
Salaries of all other employees.....do....												
Crude ore and old tailings received for milling.....do....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)					
Supplies.....do....	4,729	587	38	40	1,716	1,858	490	17,399	507	231	16,562	99
Fuel.....do....												
Purchased electric energy.....do....												
Contract work.....do....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Purchased machinery installed.....do....												
Capital expenditures, total.....do....												
Development and exploration of mineral property.....do....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Mill and washing plant construction.....do....												
Other construction.....do....												
New machinery and equipment.....do....												
Used plant and equipment.....do....												
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	12,978	6,388	238	746	4,656	660	290					
Per production worker.....	1	1	...	1	1	...	...			
Prime movers.....								(NA)	(NA)	(NA)	(NA)	(NA)
Electric motors driven by purchased energy.....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)					
Horsepower rating of electric motors driven by energy generated at the establishment.....												

See footnotes at end of table.

Table 1.—COMPARATIVE STATISTICS FOR THE COPPER, LEAD, ZINC, GOLD, AND SILVER ORES INDUSTRIES IN THE UNITED STATES, BY INDUSTRY: 1954, 1939, 1935, 1929, 1919, 1909, 1902, 1889, 1880, 1870, 1860, and 1850—Continued

(For explanation of line captions and for statement on the minimum size of establishments included for each year, see INTRODUCTION)

Item	1870 ³ —Continued							1860 ³ —Continued				
	All industries, total	Copper ores	Lead ores	Zinc ores	Lode gold ¹⁰	Placer gold ¹⁰	Silver ores	All industries, total	Copper ores	Lead and zinc ores	Lode and placer gold ¹⁰	Silver ores
Energy used.....million kwh equivalent..												
Coal.....1,000 short tons..												
Fuel oils.....1,000 barrels..												
Natural gas.....million cu. ft..												
Electric energy purchased.....million kwh..	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Electric energy generated and used.....do....												

NA Not available.

¹The totals for all industries include, but the figures for individual industries exclude, data for 9 nonproducing mines, with principal expenses of \$92,000, for which it was specified only that the ores under consideration contained two or more of the metals "copper, lead, zinc, gold, and silver."

²The totals for all industries include, but the figures for individual industries exclude, data for nonproducing establishments. For 1929, the number of such establishments reports was 783, with principal expenses of \$13,128,000; and for 1919, the number of such establishments reported 500, with principal expenses of \$13,055,000.

³Includes some smelting and refining operations. For 1909, production workers at copper smelters represented about 13 percent of the total shown for such workers in the copper ores industry, and production workers at lead and zinc smelters and refineries represented about 3 percent of the total shown for such workers in the lead and zinc ores industries.

⁴Data for establishments principally producing argentiferous lead and zinc ores are included with those for gold and silver ores.

⁵Only combined figures are available for all of the 3,252 nonproducing gold mines reported for 1902. Data for all of these mines are included with the statistics for producing "lode gold and silver ores" operations.

⁶Statistics represent Arizona, Michigan, Montana, and New Mexico only. Over 90 percent of the copper contained in copper ores was produced in these States.

⁷Statistics represent Arkansas, Illinois, Iowa, Kansas, Missouri, New Jersey, New Mexico, Pennsylvania, Tennessee, Virginia, and Wisconsin. Except for value of products, figures exclude statistics for lead mining in Arkansas, Illinois, Tennessee, and Virginia and for zinc mining in Arkansas, Iowa, Missouri, and New Mexico; value of products included for lead mining in designated States amounted to \$16,000 and for zinc mining \$2,033,000. Employment statistics exclude lead-ores and zinc-ores operations in Kansas.

⁸Statistics represent mines east of the 100th meridian only.

⁹All figures, except number of mines and value of shipments, represent only the mines for which the specified items were reported; no estimates were made for missing data. Thus, number of employees was reported for 693 mines, man-hours for 656 mines, wages for 580 mines and cost of supplies and fuels for 589 mines. Many of the remaining mines were probably very small and operated by working proprietors for which these items would be negligible.

¹⁰Figures for 1870 are probably understated and those for 1860 are probably overstated. For 1870, no estimates were made for missing reports. For 1860, estimates were made for about 5,000 apparently missing reports, and the figures also include data for refineries and assay establishments.

¹¹Excludes mills which may have been operated at 60 small establishments reported on an abbreviated schedule.

¹²For placer gold represents number of reduction mills only. Data for number of washing plants are not available.

¹³Based on figures supplied by the United States Geological Survey compiled from data collected cooperatively by the Bureau of the Census and the Geological Survey.

¹⁴Represents ore sold or treated, including milling ores, but excluding the production of "certain small operators, from whom no individual reports were received."

¹⁵Represents direct-smelting ores only.

¹⁶Figures for direct-smelting ores are combined with those for concentrates.

¹⁷Excludes ore produced by "certain small operators, from whom no individual reports were received."

¹⁸Figure for "Direct-smelting ores" includes, and figure for "Crude ore and old tailings" excludes, 141,000 tons of material reported as "Sold or treated."

¹⁹In addition to ores concentrated, includes ore leached at mills operated in conjunction with mining activities. Excludes ore leached in place.

²⁰Crude ore only.

²¹The total value of shipments contains duplication since it includes the value of milling ores shipped as well as the value of concentrates produced from such ores. The net value of shipments excludes this duplication. The value of concentrates and bullion included for 1939 has been revised, for approximate comparability with 1954, by inclusion of the value of milling ores shipped, the value added by milling purchased ores, and receipts for custom milling. It is recognized that to the extent that any milling ores were shipped to establishments in other industries, or were received from such establishments, the separate adjustments shown by industry are subject to error. Except for the inclusion for 1939 of the value of shipments of milling ores, referred to previously, figures for net value for 1939 and earlier years represent production. Statistics for 1902 and earlier years exclude the value of secondary products and services. For 1889, the figure for copper ores represents refined copper. For 1889 and 1880, the figure for gold and silver ores represents coining value. For 1880, excludes the value of 5,411,000 pounds of copper produced in States west of the 100th meridian and 154,000 pounds produced in Tennessee.

²²Figure for the value of silver bullion produced from placer gold mines is included with figure for the value of placer gold.

²³Includes and estimate of \$10,000,000 for value added at placer gold establishments.

²⁴Excludes data for number and compensation of persons engaged at central offices located at mines or mills.

²⁵Includes data for employees at central offices for copper, lead, zinc, gold, and silver ores establishments, which were not classified separately by industry.

²⁶Figures for average employment were reduced to a 300-day basis for establishments which operated for a shorter period.

²⁷Figures for number of employees include, but figures for wages and salaries exclude, data for 732 employees reported as "staff." Many of these persons may have been proprietors.

²⁸Excludes man-hours worked on inactive days.

²⁹All man-hours for placer gold operations are included under "Open-pit and surface mining and stripping and on floating equipment."

³⁰Excludes man-hours worked on inactive days and man-hours worked at nonproducing operations.

³¹Excludes the cost of crude ore and old tailings received for milling for 1939, 1935, 1929, and probably for 1889, 1880, and 1870. Excludes the cost of contract work for 1880 and earlier years.

³²Figures for cost of fuel and purchased electric energy at nonproducing operations are included with cost of supplies.

³³The figure for fuels used at lead and zinc ores operations is included with the figure for supplies. No data were reported for supplies or fuels used at placer gold operations.

³⁴The horsepower total includes only the horsepower at zinc mines in New Jersey, Pennsylvania, Tennessee, and Virginia. For this reason, the ratio of horsepower to production workers has not been computed.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 2.—COMPARATIVE STATISTICS FOR THE COPPER, LEAD, ZINC, GOLD, AND SILVER ORES INDUSTRIES,
BY GEOGRAPHIC DIVISIONS AND STATES: 1954, 1939, 1929, AND 1919

(For explanation of column captions, see INTRODUCTION)

Geographic division, State, and year	Number of mines	Value of shipments (\$1,000)	Number of employees		Designated principal expenses (\$1,000)						Aggregate horse- power rating of power equipment
			Produc- tion and develop- ment workers	All other employees	Wages of produc- tion and develop- ment workers	Salaries of all other employees	Supplies and crude ore and old tailings received for milling	Fuel	Purchased electric energy	Contract work	
United States, total											
1954.....	1,220	731,257	39,336	9,874	169,573	58,473	243,321	10,907	14,768	50,678	2,506,850
1939.....	1,698	360,499	64,683	7,426	93,737	19,312	¹ 54,201	7,315	13,842	2,165	1,551,337
1929.....	1,676	² 425,831	84,185	6,974	133,549	20,042	¹ 72,724	³ 11,305	³ 14,050	5,752	1,241,182
1919.....	2,142	325,038	86,108	7,286	128,467	16,573	76,159	16,218	10,012	3,248	981,229
East and South, total											
1954.....	168	117,984	10,287	3,438	39,262	22,551	35,919	2,603	5,016	10,247	637,998
1939.....	184	75,900	15,267	2,008	19,390	5,714	19,950	1,973	2,712	302	387,282
1919.....	373	91,455	30,309	(NA)	38,139	(NA)	² 26,277	(⁵)	(⁵)	(NA)	354,436
Illinois ⁶											
1954.....	8	3,082	84	22	348	147	1,705	14	140	7	7,943
1919.....	6	621	239	21	312	43	136	5	96	...	1,978
Michigan											
1954.....	5	22,396	2,094	443	7,824	2,120	⁷ 17,979	1,531	868	(⁷)	192,600
1939.....	6	9,411	3,166	239	3,268	520	¹¹ 4,660	1,126	171	66	91,545
1929 ⁸	20	² 29,684	7,834	479	9,838	1,230	¹⁴ 6,922	2,398	168	33	131,593
1919.....	31	34,476	12,416	698	14,834	1,468	5,780	4,187	120	1	170,757
South Dakota ⁹											
1954.....	6	19,088	1,549	222	6,458	1,134	3,588	355	137	5	37,346
1939.....	8	21,675	2,238	217	4,366	751	¹¹ 5,565	249	133	...	39,619
1929 ⁸	5	² 6,591	1,304	84	2,269	305	¹¹ 3,116	146	...	...	21,530
Missouri											
1954.....	9	30,946	2,766	685	10,950	3,801	4,103	164	2,041	1,212	172,710
1939 ¹⁰	29	13,085	2,637	403	3,393	1,004	¹² 2,072	100	980	37	118,428
1929 ⁸	34	² 23,593	4,039	407	6,233	1,013	¹² 2,696	326	1,742	55	84,888
1919 ¹¹	98	15,879	4,793	343	5,956	680	2,568	1,107	98	66	57,088
Kansas											
1954.....	26	3,267	342	32	1,321	154	656	35	209	24	17,388
1939.....	26	5,096	1,318	68	1,489	162	¹⁷ 666	87	221	39	18,228
1929 ⁸	53	²¹ 1,035	2,710	148	3,490	442	¹¹ 9,466	135	708	138	37,399
1919 ¹²	32	4,873	1,141	83	1,760	181	988	261	108	68	11,496
Oklahoma											
1954.....	67	15,129	984	30	3,794	130	8,936	141	539	37	112,947
1939.....	86	14,741	2,740	314	2,963	539	¹² 1,544	195	522	124	48,853
1929 ⁸	96	² 18,027	4,507	270	6,037	877	¹³ 5,529	353	905	242	61,839
1919 ¹²	125	18,980	5,253	314	6,908	684	4,218	733	744	228	55,182
Other States ⁹											
1954.....	47	24,076	2,468	2,004	8,567	15,065	⁷ 7,914	363	1,082	(⁷)	97,064
1939 ⁴	29	11,892	3,168	767	3,911	2,738	¹¹ 9,933	216	685	36	70,609
1919 ¹³	81	16,626	6,467	(NA)	8,369	(NA)	⁵ 5,128	(⁵)	(⁵)	(NA)	57,935
West, total											
1954.....	1,052	613,273	29,049	6,436	130,311	35,922	207,402	8,304	9,752	40,431	1,868,852
1939.....	1,514	284,599	49,416	5,418	74,347	13,598	¹⁴ 4,251	5,342	11,130	1,863	1,164,055
1919.....	1,769	233,583	55,799	(NA)	90,328	(NA)	⁵ 76,112	(⁵)	(⁵)	(NA)	626,793
Idaho											
1954.....	136	36,221	3,163	496	14,420	2,898	8,674	234	1,038	603	117,064
1939 ¹⁴	101	22,400	4,413	375	6,773	1,008	¹³ 3,109	210	788	100	75,444
1929 ⁸	143	² 20,400	4,123	238	7,266	634	¹³ 3,402	159	827	122	65,225
1919 ¹⁵	120	11,267	2,629	273	4,486	611	2,279	190	347	199	32,429
Colorado											
1954.....	146	16,119	1,368	214	5,240	912	4,247	174	706	318	56,491
1939 ¹⁶	239	21,283	3,769	393	5,299	735	¹³ 3,018	289	869	140	54,432
1929 ¹⁷	215	² 9,910	3,133	277	5,208	644	¹² 2,091	302	743	275	30,704
1919 ¹⁸	344	20,005	5,054	601	7,982	1,192	8,621	615	1,009	235	51,924
Arizona											
1954.....	175	207,379	9,824	2,142	49,795	12,348	39,894	3,812	2,526	28,095	751,422
1939 ¹⁹	142	54,165	9,047	945	14,164	2,407	¹¹ 10,327	1,939	1,037	115	274,094
1929 ²⁰	207	²¹ 115,266	16,134	1,453	27,795	3,932	¹¹ 17,321	4,100	1,535	1,152	198,706
1919 ²¹	252	87,868	15,778	1,586	27,183	3,996	17,215	4,271	1,331	896	173,634
Nevada											
1954.....	117	44,817	1,657	283	6,781	1,559	20,175	571	1,417	8,670	181,315
1939 ²²	217	27,630	4,476	482	6,992	1,226	¹³ 3,658	521	1,148	840	87,794
1929 ²³	141	² 23,952	3,941	437	7,089	1,243	¹⁴ 9,912	954	520	311	66,286
1919 ²⁴	307	17,144	4,672	683	8,177	1,369	6,085	1,128	707	355	57,750

See footnotes at end of table.

Table 2.—COMPARATIVE STATISTICS FOR THE COPPER, LEAD, ZINC, GOLD, AND SILVER ORES INDUSTRIES,
BY GEOGRAPHIC DIVISIONS AND STATES: 1954, 1939, 1929, AND 1919—Continued

(For explanation of column captions, see INTRODUCTION)

Geographic division, State, and year	Number of mines	Value of shipments (\$1,000)	Number of employees		Designated principal expenses (\$1,000)						Aggregate horse- power rating of power equipment
			Produc- tion and develop- ment workers	All other employees	Wages of produc- tion and develop- ment workers	Salaries of all other employees	Supplies and crude ore and old tailings received for milling	Fuel	Purchased electric energy	Contract work	
West—Continued											
Oregon ²⁵											
1954.....	30	238	53	5	154	10	109	11	36	12	4,891
1939 ²⁶	48	2,842	658	57	850	137	¹ 610	118	76	3	8,808
1919 ²⁷	34	1,222	459	45	621	102	389	20	58	29	4,129
California											
1954.....	200	9,231	1,033	147	4,050	776	2,199	146	978	231	95,079
1939 ²⁸	416	49,128	8,168	760	13,937	2,045	¹ 7,461	689	2,567	143	178,751
1929 ²⁹	259	² 12,374	3,176	264	5,180	660	² 2,711	52	1,145	382	56,341
1919 ³⁰	274	19,370	5,465	451	7,466	1,056	5,942	305	1,834	257	81,855
Montana and Utah ³¹											
1954.....	167	258,291	9,403	2,750	39,181	15,366	124,703	2,579	2,598	1,513	542,795
1929 ³²	251	² 119,994	19,557	1,160	33,945	4,126	¹ 18,307	700	4,732	1,939	291,518
1919 ³³	339	67,448	18,393	1,379	29,436	3,469	15,202	1,655	2,725	722	178,860
Wyoming, New Mexico, and Washington											
1954.....	81	40,977	2,548	399	10,690	2,053	7,401	777	453	989	119,795
1939 ³⁴	76	15,288	2,992	329	3,899	774	² 2,926	711	311	64	71,528
1929 ³⁵	106	² 17,436	3,379	286	4,913	730	³ 3,308	1,255	111	117	62,307
1919 ³⁶	99	8,806	3,459	291	5,057	730	3,055	1,166	32	47	44,465

¹Excludes the cost of crude ore and old tailings received for milling.²Represents net value. See table 1, footnote 21.³See table 1, footnote 32.⁴All figures except number of mines for the East and South exclude data for 2 producing silver ores mines in Texas, and for 3 nonproducing mines in Missouri, Kansas, and Kentucky. These figures are included with the statistics for the West.⁵Figures for fuels and purchased electric energy are included with those for supplies.⁶No gold, silver, copper, lead, or zinc mines were reported in Illinois for 1939 or 1929.⁷Data for contract work are included with those for supplies.⁸All figures except number of mines exclude data for nonproducing establishments, as follows: Michigan, 2 establishments; South Dakota, 3; Missouri, 5; Kansas, 1; Oklahoma, 3; Idaho, 90.⁹For 1919, figures for South Dakota are included with those for Other States.¹⁰All figures except number of mines exclude data for 1 nonproducing mine.¹¹All figures except number of mines exclude data for 1 producing copper ores mine and 1 nonproducing mine.¹²All figures except number of mines exclude data for 2 nonproducing mines.¹³All figures except number of mines include data for 1 producing copper ores mine and 1 nonproducing mine in Missouri, and for 2 nonproducing mines in each of the States, Kansas and Oklahoma.¹⁴All figures except number of mines exclude data for 1 producing copper ores mine.¹⁵All figures except number of mines exclude data for 11 producing placer gold mines, but include data for 1 nonproducing mercury ores mine and 1 nonproducing cobalt ores mine.¹⁶All figures except number of mines exclude data for 1 producing copper ores mine and for 14 nonproducing mines.¹⁷All figures except number of mines exclude data for 1 producing placer gold establishment and for 111 nonproducing establishments.¹⁸All figures except number of mines include data for 1 nonproducing vanadium ores mine and 1 nonproducing bituminous coal mine.¹⁹All figures except number of mines exclude data for 1 zinc ores mine and 5 nonproducing mines.²⁰All figures except number of mines exclude data for 1 zinc ores mine and 100 nonproducing mines.²¹All figures except number of mines include data for 1 nonproducing molybdenum ores establishment.²²All figures except number of mines exclude data for 3 producing lead ores mines and for 1 nonproducing mine.²³All figures except number of mines exclude data for 3 producing zinc ores mines and for 69 nonproducing mines.²⁴All figures except number of mines include data for 1 nonproducing marble establishment.²⁵For 1929, 57 mines were reported, including 48 nonproducing mines. Separate figures for this group of mines are not available.²⁶All figures except number of mines exclude data for 2 nonproducing mines.²⁷All figures except number of mines include data for 1 nonproducing bituminous coal mine.²⁸All figures except number of mines exclude data for 1 producing copper ores mine and 4 nonproducing mines.²⁹All figures except number of mines exclude data for 4 producing lead mines and for 156 nonproducing mines.³⁰All figures except number of mines include data for 1 nonproducing mercury ores establishment.³¹For 1939, 275 mines were reported, including 16 nonproducing mines. Separate figures for this group of mines are not available.³²All figures except number of mines exclude data for 6 producing zinc establishments, 3 producing lode gold establishments, and for 121 nonproducing establishments.³³All figures except number of mines exclude data for 9 producing placer gold mines in Montana, but include data for 1 nonproducing iron ores mine in Utah.³⁴All figures except number of mines exclude data for 11 producing mines and 7 nonproducing mines.³⁵All figures except number of mines exclude data for 12 producing establishments and 66 nonproducing establishments.³⁶All figures except number of mines exclude data for 2 producing placer gold mines, 1 each in New Mexico and Washington, but include data for 1 nonproducing sulfur establishment in Wyoming and 1 nonproducing manganese ores establishment in New Mexico.

Table 3.—DETAILED STATISTICS FOR THE COPPER, LEAD, ZINC, GOLD, AND SILVER
(For explanation of line captions,

Item	United States, total	Northeast, East North Central, and South					
		Total	Vermont	Illinois	Michigan	Oklahoma	Other States ¹
1 Number of operating companies.....	1,110	98	3	7	3	60	29
2 Number of establishments.....	1,265	140	3	10	8	73	46
3 Number of mines.....	1,220	127	2	8	5	67	45
4 Number of mills and washing plants.....	464	39	1	2	5	11	20
5 Crude ore mined, total.....1,000 short tons..	112,280	9,115	310	401	(D)	2,410	(D)
6 From underground operations.....do....	31,940	9,029	225	401	(D)	2,409	(D)
7 From open-pit operations.....do....	80,340	86	85	...	...	1	...
8 Direct-smelting ores shipped, including leaching ores and old tailings shipped to smelters.....do....	4,674	181	...	...	...	(D)	(D)
9 Crude ore and old tailings milled.....do....	110,938	11,230	310	(D)	4,290	(D)	2,935
10 Copper, lead, zinc, gold, and silver concentrates and copper precipitates shipped.....do....	4,237	524	18	(D)	37	121	(D)
11 Value of shipments, total.....\$1,000..	731,257	64,683	2,305	3,082	22,396	15,129	21,771
12 Milling ores.....do....	136,355	14,868	...	(D)	(D)	(D)	1,638
13 Net shipments, total.....do....	594,902	49,815	2,305	(D)	(D)	(D)	20,133
14 Direct-smelting ores, leaching ores, and old tailings...do....	37,392	1,971	...	(D)	...	(D)	(D)
15 Copper, lead, zinc, gold, and silver concentrates, copper precipitates, mill bullion, and placer gold.....do....	531,802	42,682	2,220	(D)	11,157	9,970	(D)
16 Other products and services.....do....	25,708	5,162	85	...	(D)	...	(D)
17 Value added in mining.....do....	477,639	38,596	1,602	1,239	14,126	5,465	16,164
18 Number of persons engaged, total.....	50,383	8,261	210	113	2,537	1,104	4,297
19 Production and development workers.....	39,336	5,630	193	84	2,094	984	2,275
20 All other employees.....	9,874	2,499	17	22	443	30	1,987
21 Proprietors and firm members.....	1,173	132	...	7	...	90	35
22 Performing manual labor.....	922	92	...	7	...	70	15
23 Man-hours worked by production and development workers, total.....1,000..	83,593	11,894	473	176	4,479	2,375	4,391
24 At mines, total.....do....	67,529	9,220	406	113	3,795	1,672	3,234
25 Underground.....do....	37,156	6,638	350	90	2,226	1,396	2,576
26 Open-pit and surface mining and stripping ⁴.....do....	11,638	...	...	...	...	...	...
27 On floating equipment.....do....	722	...	...	...	...	...	...
28 Other surface (including mine shops and yards) ⁵.....do....	18,013	2,582	56	23	1,569	276	658
29 At mills and washing plants.....do....	16,064	2,674	67	63	684	703	1,157
30 Man-hours spent on development and exploration work (included above).....do....	7,872	903	...	6	573	18	306
31 Value of net shipments per man-hour.....\$1,000..	7.12	4.19	4.87	(D)	3.46	(D)	4.59
32 Principal expenses designated below, total.....\$1,000..	547,720	79,251	1,636	2,361	30,322	13,577	31,355
33 Wages of production and development workers.....do....	169,573	20,533	798	348	7,824	3,794	7,769
34 Salaries of all other employees.....do....	58,473	17,462	120	147	2,120	130	14,945
35 Crude ore and old tailings received for milling.....do....	137,088	16,434	...	...	...	...	1,503
36 Supplies.....do....	106,233	11,138	414	1,705	617,979	8,936	65,827
37 Fuel.....do....	10,907	2,049	8	14	1,531	141	355
38 Purchased electric energy.....do....	14,768	2,629	126	140	868	539	956
39 Contract work.....do....	50,678	9,006	170	7	(⁶)	37	(⁶)
40 Purchased machinery installed.....do....	31,421	13,115	56	4	11,271	169	1,615
41 Capital expenditures, total.....do....	97,477	28,284	71	27	23,379	158	4,649
42 Development and exploration of mineral property.....do....	32,063	8,295	15	27	5,407	37	2,809
43 Mill and washing plant construction.....do....	15,166	3,120	...	...	2,490	...	630
44 Other construction.....do....	22,933	4,543	...	...	4,211	...	332
45 New machinery and equipment.....do....	25,175	12,206	56	...	11,271	111	768
46 Used plant and equipment.....do....	2,140	120	...	...	...	10	110
47 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	2,506,850	410,554	4,646	7,943	192,600	112,947	92,418
48 Per production worker.....	64	73	24	95	92	115	41
49 Prime movers.....	1,309,951	206,419	990	3,876	151,674	15,813	34,066
50 Electric motors driven by purchased energy.....	1,196,899	204,135	3,656	4,067	40,926	97,134	58,352
51 Horsepower rating of electric motors driven by energy generated at the establishment.....	485,879	38,538	...	...	32,392	46	6,100
52 Energy used.....million kwh equivalent..	11,786	1,863	13	12	1,354	131	353
53 Coal.....1,000 short tons...	292	189	...	...	155	5	29
54 Fuel oils.....1,000 barrels...	465	73	1	2	46	5	19
55 Natural gas.....million cu. ft.	21,549	98	...	...	...	98	...
56 Electric energy purchased.....million kwh..	1,759	233	11	8	75	40	99
57 Electric energy generated and used.....do....	1,302	82	...	...	77	...	5
58 Water intake, including mine water used.....million gallons..	98,581	20,813	223	795	15,577	685	3,533
59 Per production worker.....do....	2.51	3.70	1.16	9.46	7.44	0.70	1.55

¹Represents New Hampshire, 1 establishment; New York, 3; New Jersey, 3; Pennsylvania, 1; Wisconsin, 13; Maryland, 1; Virginia, 4; North Carolina, 5; Georgia, 1; Kentucky 1; Tennessee, 8; Arkansas, 2; and Texas, 3. ²Represents 101 establishments in Montana and 74 establishments in Utah. ³Represents 5 establishments in Wyoming, 39 establishments in New Mexico, and 39 establishments in Washington.

ORES INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954

see INTRODUCTION)

West North Central				West										
Total	South Dakota	Missouri	Kansas	Total	Idaho	Colorado	Arizona	Nevada	Oregon	California	Montana and Utah ²	Wyoming, New Mexico, and Washington ³		
38	6	9	24	988	122	141	169	108	29	195	155	80	1	
46	6	11	29	1,079	141	149	177	121	30	203	175	83	2	
41	6	9	26	1,052	136	146	175	117	30	200	167	81	3	
19	4	9	6	406	64	55	42	38	24	113	36	34	4	
9,272	1,601	6,539	1,132	93,893	1,637	969	43,363	9,870	2	231	29,517	8,304	5	
7,385	...	6,254	1,131	15,526	1,628	913	6,151	102	2	203	5,255	1,272	6	
1,887	1,601	285	1	78,367	9	56	37,212	9,768	...	28	24,262	7,032	7	
9	...	...	9	4,484	17	102	3,854	97	1	9	261	143	8
10,141	1,601	8,120	420	89,567	1,643	801	39,634	(D)	3	221	(D)	8,126	9	
209	...	195	14	3,504	201	110	1,364	(D)	...	10	(D)	282	10	
53,301	19,088	30,946	3,267	613,273	36,221	16,119	207,379	44,817	238	9,231	258,291	40,977	11	
2,186	...	...	2,186	119,301	2,491	2,537	946	(D)	...	188	(D)	...	12
51,115	19,088	30,946	1,081	493,972	33,730	13,582	206,433	(D)	238	9,043	(D)	40,977	13	
53	...	30,946	1,076	35,368	333	1,844	28,089	1,414	7	393	2,403	885	14	
51,057	19,088			438,063	33,185	11,713	175,622	30,132	228	8,641	139,423	39,119	15	
5	...	...	5	20,541	212	25	2,722	(D)	3	9	(D)	973	16
40,319	15,439	22,708	2,172	398,724	27,368	11,967	170,211	17,722	150	6,369	128,499	36,438	17	
5,630	1,773	3,457	400	36,492	3,742	1,732	12,160	2,053	89	1,410	12,293	3,013	18	
4,657	1,549	2,766	342	29,049	3,163	1,368	9,824	1,657	53	1,033	9,403	2,548	19	
939	222	685	32	6,436	496	214	2,142	283	5	147	2,750	399	20	
34	2	6	26	1,007	83	150	194	113	31	230	140	66	21	
21	...	5	16	809	69	111	159	95	25	185	114	51	22	
9,674	3,452	5,410	812	62,025	6,549	2,877	22,728	3,308	99	2,482	18,602	5,380	23	
8,248	3,106	4,453	689	50,061	5,996	2,401	19,224	2,068	90	2,285	14,600	3,397	24	
5,971	1,843	3,561	567	24,547	4,806	1,917	7,162	367	31	965	8,273	1,026	25	
72	1	71	...	11,566	12	6	5,372	769	2	133	3,733	1,539	26	
...	...	...	...	722	21	...	...	56	25	618	2	...	27
2,205	1,262	821	122	13,226	1,157	478	6,690	876	32	569	2,592	832	28	
1,426	346	957	123	11,964	553	476	3,504	1,240	9	197	4,002	1,983	29	
347	226	82	39	6,622	543	470	2,462	616	31	482	370	1,648	30	
5.28	5.53	5.72	1.33	7.96	5.15	4.72	9.08	(⁷)	2.40	3.64	(⁸)	7.62	31	
36,347	11,677	22,271	2,399	432,122	27,867	11,597	136,470	39,173	332	8,380	185,940	22,363	32	
18,729	6,458	10,950	1,321	130,311	14,420	5,240	49,795	6,781	154	4,050	39,181	10,690	33	
5,089	1,134	3,801	154	35,922	2,898	912	12,348	1,559	10	776	15,366	2,053	34	
96	...	4,103	656	120,558	2,174	1,610	940	12,491	...	228	103,115	...	35	
8,251	3,588			86,844	6,500	2,637	38,954	7,684	109	1,971	21,588	7,401	36	
554	355	164	35	8,304	234	174	3,812	571	11	146	2,579	777	37	
2,387	137	2,041	209	9,752	1,038	706	2,526	1,417	36	978	2,598	453	38	
1,241	5	1,212	24	40,431	603	318	28,095	8,670	12	231	1,513	989	39	
2,077	323	1,495	259	16,229	791	707	7,790	741	84	299	4,277	1,540	40	
1,624	759	777	88	67,569	2,487	2,000	44,949	4,479	164	991	5,878	6,621	41	
730	231	457	42	23,038	1,809	1,068	10,541	3,402	65	694	460	4,999	42	
271	243	28	...	11,775	108	143	9,793	389	29	35	1,149	129	43	
333	119	214	...	18,057	24	279	17,124	73	2	27	410	118	44	
259	157	56	46	12,710	345	380	6,278	575	10	143	3,681	1,298	45	
31	9	22	...	1,989	201	130	1,213	40	58	92	178	77	46	
227,444	37,346	172,710	17,388	1,868,852	117,064	56,491	751,422	181,315	4,891	95,079	542,795	119,795	47	
49	24	62	51	64	37	41	76	109	92	92	58	47	48	
47,688	26,912	12,160	8,616	1,055,844	31,588	21,082	551,799	80,762	3,723	34,969	252,611	79,310	49	
179,756	10,434	160,550	8,772	813,008	85,476	35,409	199,623	100,553	1,168	60,110	290,184	40,485	50	
47,152	47,152	...	...	400,189	4,398	2,445	223,501	16,926	275	587	121,925	30,132	51
862	521	310	31	9,061	259	129	3,605	331	11	144	3,724	858	52	
61	61	...	...	42	6	5	1	1	...	...	27	2	53
14	3	9	2	378	18	14	204	87	...	10	15	30	54	
290	67	188	35	21,161	...	1	9,173	...	...	...	9,711	2,276	55
256	14	228	14	1,270	162	52	311	146	7	107	430	55	56	
57	57	...	...	1,163	7	4	595	15	...	1	382	159	57
8,047	2,711	4,912	424	69,721	5,466	4,149	14,358	5,225	610	9,651	26,726	3,536	58	
1.73	1.75	1.78	1.24	2.40	1.73	3.03	1.46	3.15	11.51	9.34	2.84	1.39	59	

⁴For placer gold, the figures were reported as "Surface, other than shops and yards or on floating equipment." ⁵For placer gold, represents "Mine shops and yards" only. ⁶Cost of contract work is included with cost of supplies. ⁷Between 9.00 and 10.00. ⁸Between 8.00 and 9.00.

Table 4.—DETAILED STATISTICS FOR THE COPPER, LEAD, ZINC, GOLD, AND SILVER ORES

(For explanation of line

Item	All types of establishments	Producing establishments		
		Lode operations		
		Mines, total		Open-pit mines
		Without mills ²	With mills	
1 Number of operating companies.....	1,110	482	185	94
2 Number of establishments.....	1,265	537	209	102
3 Number of mines.....	1,220	537	209	102
4 Number of mills and washing plants.....	464	23	209	32
5 Crude ore mined.....1,000 short tons..	112,280	42,149	70,131	71,664
6 Value of shipments.....\$1,000..	731,257	146,064	392,754	234,459
7 Value added in mining.....do....	477,639	117,660	308,694	196,135
8 Number of persons engaged, total.....	450,383	12,254	29,413	10,484
9 Production and development workers.....	39,336	10,228	24,602	8,576
10 All other employees.....	49,874	1,400	4,672	1,800
11 Proprietors and firm members.....	1,173	626	139	108
12 Performing manual labor.....	922	509	100	93
13 Man-hours worked by production and development workers, total.....1,000..	83,593	20,560	53,105	19,312
14 At mines, total.....do....	67,529	20,533	43,154	14,938
15 Underground.....do....	37,156	12,248	23,192	...
16 Open-pit and surface mining and stripping ⁵.....do....	11,638	4,345	7,092	10,760
17 On floating equipment.....do....	722	xxx	xxx	xxx
18 Other surface (including mine shops and yards) ⁶.....do....	18,013	3,940	12,870	4,178
19 At mills and washing plants.....do....	16,064	27	9,951	4,374
20 Man-hours spent on development and exploration work (included above).....do....	7,872	1,155	4,269	2,258
21 Crude ore mined per man-hour at mine.....short tons..	1.7	2.1	1.6	4.8
22 Principal expenses designated below, total.....\$1,000..	4547,720	79,994	248,114	102,927
23 Wages of production and development workers.....do....	169,573	41,461	108,588	40,258
24 Salaries of all other employees.....do....	458,473	8,059	25,527	9,691
25 Crude ore and old tailings received for milling.....do....	137,088	...	11,907	39,728
26 Supplies.....do....	106,233	18,756	69,879	...
27 Fuel.....do....	10,907	929	7,340	3,226
28 Purchased electric energy.....do....	14,768	2,935	8,399	1,669
29 Contract work.....do....	50,678	7,854	16,474	8,355
30 Purchased machinery installed.....do....	31,421	3,302	24,433	6,998
31 Capital expenditures, total.....do....	97,477	5,372	54,372	21,652
32 Development and exploration of mineral property.....do....	32,063	1,884	17,792	7,678
33 Mill and washing plant construction.....do....	15,166	129	7,416	3,890
34 Other construction.....do....	22,933	477	8,129	2,903
35 New machinery and equipment.....do....	25,175	2,506	19,700	6,277
36 Used plant and equipment.....do....	2,140	376	1,335	904
37 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	2,506,850	484,725	1,497,951	629,631
38 Per production worker.....	64	47	61	73
39 Prime movers.....	1,309,951	167,123	895,227	519,190
40 Electric motors driven by purchased energy.....	1,196,899	317,602	602,724	110,441
41 Horsepower rating of electric motors driven by energy generated at the establishment.....	485,879	579	343,548	176,757
42 Energy used.....million kwh equivalent..	11,786	1,048	7,210	2,929
43 Coal.....1,000 short tons..	292	30	237	8
44 Fuel oils.....1,000 barrels..	465	36	368	203
45 Natural gas.....million cu. ft..	21,549	929	11,634	6,965
46 Electric energy purchased.....million kwh..	1,759	404	972	243
47 Electric energy generated and used.....do....	1,302	...	895	600
48 Water intake, including mine water used.....million gallons..	98,581	2,276	50,008	13,156
49 Per production worker.....do....	2.51	0.22	2.03	1.53

¹Includes mills with nonproducing mines.²Includes mines with nonproducing mills.³Includes data for mines not reporting their principal mining method; such mines account for less than 15 percent of the value of shipments shown for this group.⁴Includes data for 2,526 salaried employees at central offices, paid \$18,972,000, which were not classified by type of operation.

INDUSTRIES IN THE UNITED STATES, BY TYPE OF OPERATION: 1954

captions, see INTRODUCTION)

Producing establishments—Continued										Non-producing establishments	
Lode operations—Continued							Placer operations				
Combination open-pit and underground mines	Underground mines, by principal mining method					Mills only ¹	Bucket line dredging	Dragline dredging and other mining methods			
	Total	Open stoping	Shrinkage stoping	Square-setting	Block caving, cut-and-fill stoping, and other methods ³						
18	560	220	50	27	275	41	6	94	339		
18	626	261	53	29	283	46	7	96	370	2	
18	626	261	53	29	283	6	7	96	365	3	
9	191	67	25	11	88	46	7	83	96	4	
12,437	28,179	16,791	1,543	2,070	7,775	xxx	xxx	xxx	xxx	5	
62,725	241,634	86,942	21,755	55,287	77,650	186,523	5,572	344	...	6	
46,330	183,889	64,042	14,814	44,002	61,031	46,363	3,253	264	1,405	7	
5,219	25,964	10,293	2,031	5,693	7,947	3,834	477	171	1,708	8	
4,439	21,815	8,451	1,728	4,932	6,704	2,831	436	35	1,204	9	
770	3,502	1,562	270	740	930	970	37	6	263	10	
10	647	280	33	21	313	33	4	130	241	11	
8	508	194	25	16	273	27	1	113	172	12	
8,689	45,664	17,667	3,717	10,086	14,194	5,949	1,136	70	2,773	13	
7,980	40,769	15,296	3,155	9,693	12,625	1	1,115	53	2,673	14	
4,877	30,563	11,500	2,403	7,525	9,135	...	...	21	1,695	15
677	...	...	...	...	...	1	128	24	48	16
xxx	xxx	xxx	xxx	xxx	xxx	...	714	8	...	17	
2,426	10,206	3,796	752	2,168	3,490	...	273	...	930	18	
709	4,895	2,371	562	393	1,569	5,948	21	17	100	19	
6	3,160	1,184	499	290	1,187	31	6	23	2,388	20	
1.6	0.7	1.1	0.5	0.2	0.6	xxx	xxx	xxx	xxx	21	
39,503	185,678	75,678	15,916	39,035	55,049	157,650	4,391	260	38,339	22	
18,294	91,497	32,120	6,920	22,781	29,676	11,897	1,806	109	5,712	23	
4,751	19,144	7,910	1,353	4,547	5,334	4,361	249	15	1,290	24	
...	51,648	21,610	5,878	9,138	599	125,181	...	...	...	25
9,166	3,866	2,118	197	320	14,423	11,247	1,453	85	4,813	26	
1,177	8,435	4,092	1,019	1,640	1,231	2,260	201	46	556	27	
1,230	11,088	7,828	549	609	1,684	2,357	652	5	25,968	28	
4,885	18,372	14,316	889	621	2,102	347	30	5	1,744	29	
2,365	35,664	27,064	1,591	1,043	2,546	5,966	2,996	42	34,486	30	
2,428	11,864	7,471	553	363	3,477	...	11	58	12,318	31	
134	3,591	2,785	298	21	487	1,210	5	15	6,391	32	
64	5,267	4,672	68	243	284	11	...	4	14,312	33	
436	14,154	11,955	597	356	1,246	1,748	17	59	1,145	34	
1,775	788	181	75	60	472	27	9	73	320	35	
19	1,059,162	520,632	70,679	173,965	293,886	356,445	43,967	11,839	111,923	36	
293,883	49	62	41	35	44	126	101	(7)	93	37	
66	425,815	235,631	18,321	43,002	128,861	158,567	12,479	10,778	65,777	38	
117,345	633,347	285,001	52,358	130,963	165,025	197,878	31,488	1,061	46,146	39	
176,538	139,308	39,866	2,363	2,486	94,593	121,708	3,597	859	15,588	40	
28,062	4,112	1,918	190	576	1,428	3,264	156	12	96	41	
1,217	259	157	7	2	93	25	...	...	...	42
...	52	94	14	11	30	6	41	4	10	43	
52	2,647	235	23	949	1,440	8,903	...	...	83	44
2,951	941	420	98	236	187	266	79	...	38	45	
192	244	89	5	4	146	389	10	...	8	46	
51	34,221	19,487	1,783	2,917	10,034	35,154	9,872	877	394	47	
4,907	1.57	2.31	1.03	0.59	1.50	12.42	22.64	(7)	0.33	48	
1.11										49	

⁵See table 3, footnote 4.⁶See table 3, footnote 5.⁷Not computed since the number of proprietors and firm members performing manual labor exceeds one-third of the number of production and development workers.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 5.—RECOVERABLE COPPER, LEAD, ZINC, GOLD, AND SILVER CONTENT OF ORES, OLD TAILINGS, CONCENTRATES, AND PRECIPITATES IN THE UNITED STATES, BY INDUSTRY: 1954

Product	All industries, total	Copper, lead, zinc, gold, and silver ores industries							All other industries
		Total	Copper ores	Lead and zinc ores		Gold		Silver ores	
				Valued chiefly for lead	Valued chiefly for zinc	Lode	Placer		
<u>Recoverable copper, total</u>.....1,000 pounds	1,670,680	1,640,516	1,612,894	13,293	9,617	32	...	4,680	30,164
Direct-smelting and leaching ores ¹ .do....	132,304	131,215	125,456	937	4,536	22	...	264	1,089
Concentrates, total.....do....	1,402,238	(D)	1,351,420	(D)	(D)	10	...	4,416	(D)
Copper concentrates.....do....	1,384,776	(D)	1,351,139	(D)	(D)	...	...	...	(D)
Lead, zinc, gold, and silver concentrates.....do....	17,462	17,304	281	7,573	5,024	10	...	4,416	158
Copper precipitates.....do....	136,138	(D)	136,018	(D)	(D)	...	...	...	(D)
<u>Recoverable lead, total</u>.....do....	643,530	640,367	202	513,890	117,254	114	...	8,907	3,163
Direct-smelting ores ¹.....do....	22,384	(D)	181	19,440	1,537	28	...	(D)	(D)
Concentrates, total.....do....	621,146	(D)	21	494,450	115,717	86	...	(D)	(D)
Lead concentrates.....do....	592,814	(D)	...	485,950	103,867	...	...	(D)	(D)
Zinc, copper, gold, and silver concentrates.....do....	28,332	28,072	21	8,500	11,850	86	...	7,615	260
<u>Recoverable zinc, total</u>.....do....	911,479	893,172	9,830	181,471	699,682	76	...	2,113	18,307
Direct-smelting ores ¹.....do....	41,477	(D)	890	2,138	38,300	28	...	(D)	(D)
Concentrates, total.....do....	870,002	(D)	8,940	179,333	661,382	48	...	(D)	(D)
Zinc concentrates.....do....	849,924	831,689	8,940	168,280	652,825	...	...	(D)	18,235
Lead, copper, gold, and silver concentrates.....do....	20,078	(D)		11,053	8,557	48	...	95	(D)
<u>Recoverable gold, total</u>.....1,000 fine ounces..	1,584.3	1,580.9	523.4	53.0	64.1	766.7	169.3	4.4	3.4
From lode deposits, total.....do....	1,413.1	1,411.6	523.4	53.0	64.1	766.7	...	4.4	1.5
Direct-smelting ores ¹.....do....	83.9	(D)	35.3	(D)	(D)	28.7	...	(D)	(D)
Concentrates, total.....do....	616.0	(D)	(D)	(D)	51.7	36.7	...	(D)	(D)
Gold concentrates.....do....	41.6	(D)	(D)	(D)	...	36.7	...	...	(D)
Copper, lead, zinc, and silver concentrates.....do....	574.4	(D)	486.9	27.0	51.7	...	...	(D)	(D)
Mill bullion and precipitates...do....	713.2	(D)	(D)	(D)	(D)	701.3	...	...	(D)
From placer gravels.....do....	171.2	169.3	xxx	xxx	xxx	xxx	169.3	...	1.9
<u>Recoverable silver, total</u>.....do....	36,670	36,422	8,110	9,687	6,207	524	13	11,881	248
From lode deposits, total.....do....	36,657	36,409	8,110	9,687	6,207	524	...	11,881	248
Direct-smelting ores ¹.....do....	5,287	(D)	1,452	1,074	1,959	(D)	...	677	(D)
Concentrates, total.....do....	31,067	30,898	6,658	(D)	(D)	175	...	11,204	169
Silver concentrates.....do....	11,174	30,898	...	...	...	...	...	11,204	169
Gold, copper, lead, and zinc concentrates.....do....	19,893		6,658	(D)	(D)	175	...		
Mill bullion and precipitates...do....	303	(D)	...	(D)	(D)	(D)	...	...	(D)
From placer gravels.....do....	13	13	...	...	...	...	13	...	...

D Withheld to avoid approximately disclosing figures for individual companies.

¹ Includes old tailings shipped to smelters and other shipments of ores and tailings, such as to ore buyers.

Table 6.—GENERAL STATISTICS FOR COPPER, LEAD, ZINC, GOLD, AND SILVER ORES ESTABLISHMENTS IN THE UNITED STATES
CLASSIFIED BY EMPLOYMENT SIZE, BY INDUSTRY: 1954

(For explanation of column captions, see INTRODUCTION)

Industry and number of employees in establishment	Number of establish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expen- ditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
Copper, lead, zinc, gold, and silver ores, total.....	1,265	731,257	477,639	39,336	19,874	83,593	169,573	158,473	95,337
0.....	553	1,556	1,267	...	...	12	21	1	5,139
1-4.....	406	3,161	2,242	690	128	1,238	1,972	384	2,558
5-9.....	93	46,015	30,209	3,045	443	6,738	12,206	2,208	5,702
10-19.....	61								
20-49.....	63								
50-99.....	22	89,976	38,694	5,055	804	11,577	21,287	4,305	5,595
100-249.....	27								
250-499.....	16								
500-999.....	10	65,381	41,428	4,739	799	9,699	19,097	4,153	27,667
1,000-2,499.....	12								
2,500 and over.....	2								
525,168		363,799	25,807	6,555	54,329	114,990	38,076	48,676	
Copper ores, total.....	210	508,729	334,876	21,544	16,269	46,676	98,491	137,574	80,970
0.....	86	273	208	...	...	3	9	1	2,797
1-4.....	59	707	458	110	13	203	340	31	447
5-9.....	16	984	831	94	15	200	319	77	181
10-19.....	8	260	399	96	7	209	398	43	255
20-49.....	9	14,250	5,553	363	113	857	1,632	609	774
50-99.....	2								
100-249.....	7								
250-499.....	6	13,243	9,207	906	151	2,132	3,854	703	2,698
500-999.....	6	35,851	19,143	1,854	361	4,075	8,136	1,733	26,927
1,000-2,499.....	6	59,121	32,687	2,606	1,086	5,850	12,055	5,844	32,365
2,500 and over.....	10	384,040	266,390	15,515	3,378	33,147	71,748	19,187	14,526
	1								
	1								
Lead and zinc ores: Ores valued chiefly for lead, total...	343	94,874	62,713	7,156	1,564	14,654	29,549	9,453	4,883
0.....	143	507	400	...	...	6	9	...	253
1-4.....	113	1,080	1,127	181	39	322	560	122	787
5-9.....	27	2,346	892	153	20	317	503	80	210
10-19.....	19	5,420	4,717	315	33	663	1,324	173	493
20-49.....	18	5,157	4,256	492	50	1,036	2,070	267	1,215
50-99.....	11	19,339	7,091	715	123	1,591	3,179	669	892
100-249.....	6	10,926	5,949	802	186	1,666	3,427	1,077	383
250-499.....	3	50,099	38,281	4,498	1,113	9,053	18,477	7,065	650
500-999.....	2								
2,500 and over.....	1								
Ores valued chiefly for zinc, total...	177	81,073	44,696	6,436	1,410	12,900	24,127	8,234	6,189
0.....	49	105	75	...	...	2	2	...	1,754
1-4.....	45	591	(2)	72	18	137	213	79	443
5-9.....	14	662	543	85	14	179	252	65	187
10-19.....	20	2,615	1,463	224	35	522	848	163	242
20-49.....	29	11,256	6,559	841	91	1,892	3,424	492	1,344
50-99.....	4	3,183	2,141	252	29	558	1,151	182	127
100-249.....	7	28,309	7,657	958	161	2,204	3,748	812	993
250-499.....	7	34,352	20,362	4,004	1,062	7,406	14,489	6,441	1,099
500-999.....	1								
1,000-2,499.....	1								
Lode gold, total.....	298	28,517	21,884	2,634	386	5,894	10,406	1,863	1,987
0.....	139	309	303	...	...	...	...	...	121
1-4.....	119	500	451	213	34	362	536	71	437
5-9.....	20	376	278	118	16	255	390	55	282
10-19.....	6	306	317	65	11	170	310	20	161
20-49.....	5	1,517	1,190	115	17	261	530	110	62
50-99.....	5	4,472	2,565	272	50	643	1,020	253	173
100-249.....	3	21,037	16,780	1,851	258	4,203	7,620	1,354	751
1,000-2,499.....	1								
	1								
Placer gold, total.....	136	5,916	3,614	501	55	1,255	1,997	314	353
0.....	91	207	211	...	...	...	...	...	89
1-4.....	36	136	105	54	16	100	157	61	157
5-9.....	4	5,573	3,298	447	39	1,155	1,840	253	107
10-19.....	1								
20-49.....	2								
100-249.....	2								
Silver ores, total.....	101	12,148	9,856	1,065	190	2,214	5,003	1,035	955
0.....	45	155	70	...	...	1	1	...	125
1-4.....	34	147	205	60	8	114	166	20	287
5-9.....	12	312	348	61	16	122	226	42	205
10-19.....	7	566	566	78	8	182	329	24	218
100-249.....	2	10,968	8,667	866	158	1,795	4,281	949	120
500-999.....	1								
	1								

¹Includes data for 1,145 salaried employees at central offices in New York, paid \$9,346,000 in salaries, which were not classified by employment size.

²Value added was not computed for this group since the combined cost of supplies, crude ore and old tailings received for milling, fuel, purchased electric energy, contract work, and purchased machinery installed exceeded the sum of the value of shipments and capital expenditures. See INTRODUCTION, "Value added in mining."

Copper Ores

This report shows 1954 Census of Mineral Industries statistics for establishments classified in Industry 1021, Copper Ores. Industry 1021 comprises establishments primarily engaged in mining, milling, or otherwise preparing copper ores, such as native copper, oxidized copper ores, sulfide copper ores, and complex copper ores. This industry also includes establishments primarily engaged in the recovery of copper by precipitation and by leaching operations carried on in conjunction with mining activities. Leaching operations occurring at copper refineries are included as part of the manufacturing activities. Establishments primarily engaged in smelting or refining copper ores, concentrates, or precipitates are classified as manufacturing plants in Industry 3331, Primary Smelting and Refining of Copper.

Establishments primarily producing complex ores, for Census purposes, were classified in the copper ores industry if the estimated value of the recoverable copper content of materials produced or shipped was greater than for any of the other metals contained. For industrial classification purposes, estimated unit values of metals, f.o.b. mine or mill, were derived by subtracting from their average market prices in 1954 estimated smelting, refining, and transportation costs. These unit values were applied to the recoverable metal content of complex ores and concentrates reported to determine the metal of principal value and thus provide a basis for classifying the establishment. For the unit values used in these computations and for a more complete discussion of this procedure, see the summary report, "Copper, Lead, Zinc, Gold, and Silver Ores." Use of this procedure to determine the metal of principal value was required less frequently in the case of copper ores than for lead, zinc, gold, and silver ores, since ores mined in the copper ores industry contained relatively small quantities of other metals and comparatively little copper, was contained in ores mined in other industries.

The copper ores industry was similarly defined in 1939, the year covered by the preceding Census of Mineral Industries. Changes in establishment classification have resulted, however, from changes in the metal content of ores mined or milled at specific establishments or from differences, for the various metals, in the increase in unit values since 1939. For example, the increase in the value of copper since 1939 has been proportionately much greater than for silver. Of course, there has been no change in the unit value of gold over this period. Consequently, some establishments classified in the copper ores industry in 1954 would have been classified as silver or gold mines in 1939. In addition, several large establishments producing copper concentrates in conjunction with the production of iron concentrates or pyrites were classified in the copper ores industry in 1939, or prepared a separate

report covering their copper operations, but were classified in 1954 in the iron ores industry or the pyrites subindustry, respectively. To a greater extent than in 1939, separate reports were filed in 1954 for mines and for associated mills. This factor affects the comparability of some of the statistics for the two years, such as the quantity and value of milling ores shipped and the classification of operations by employment size.

The total value of shipments of the copper ores industry in 1954 amounted to \$509 million, including shipments of milling ores for preparation at mills within the copper ores industry. Net shipments totaled approximately \$410 million and consisted primarily of copper concentrates (\$328 million). Shipments of ores for direct processing at smelters and refineries, without prior milling in the copper ores industry, and shipments of copper precipitates were valued at \$29 million and \$28 million, respectively. The value of secondary products and of receipts for services amounted to \$24 million and consisted primarily of molybdenum concentrates (\$17 million).

Establishments in the copper ores industry accounted for nearly 97 percent of the total of 1,671 million pounds of copper recoverable from domestic ores and concentrates. The balance of the recoverable copper was contained principally in the products of establishments classified in the lead-zinc, silver, and iron ores industries and the pyrites and cobalt ores subindustries.

The report form used for the copper ores industry by the Bureau of the Census also provided information required by the Bureau of Mines for its annual statistics on copper ore. The Bureau of Mines statistics are, in general, comparable with those shown in this report. However, some differences occur in the statistics on products arising principally from the difference in methods followed and objectives sought by these two bureaus in compiling and presenting the statistics. This is discussed in the INTRODUCTION. The reasons for such differences, to the extent that they pertain to statistics for the copper ores industry, are summarized below:

1. The statistics shown in this report on ores mined, milled, or shipped by copper ores establishments cover all ores and thus may include small quantities of lead, zinc, gold, and silver ores, as well as copper ores. Conversely, copper ores mined at establishments classified in other industries are excluded. The Bureau of Mines publishes separate statistics on copper ores from all mines regardless of industry classification. Complex ores are classified by the Bureau of Mines, in large measure, on the basis of the assay content of the ores. The Bureau of the Census, on the other hand, bases such classification on the value of the metals contained.

2. The Bureau of Mines has excluded from its statistics for 1954 any shipments made in January of that year if such shipments had been included in their 1953 statistics. Likewise, any shipments in 1953 not included in the figures for that year have been added to the 1954 statistics. The figures included for several mines have historically been based, by the Bureau of Mines, on receipts at the smelter rather than on shipments from the mine. In these instances, shipments made near the close of 1953 would tend to be included, and shipments near the close of 1954 excluded, from the 1954 statistics. The statistics shown in this report, on the other hand, pertain to mine or mill figures for the year 1954.

3. The Bureau of Mines has included in its statistics on recoverable copper, the copper recovered at smelters from old slag and smelter cleanings if this copper was not included

in the statistics for earlier years. Only the copper recoverable from ores mined or milled in 1954 are included in the Census statistics.

4. Figures for establishments with value of shipments of less than \$500 are excluded from this report, unless the expense for development work amounted to \$500 or more. The Bureau of Mines includes the production from all domestic mines.

5. Differences in the statistics by State also arise from the fact that concentrates produced in one State from ores mined in another are assigned by the Bureau of Mines to the State in which the mine is located, whereas the Bureau of the Census includes such concentrates in the statistics for the State in which the mill is located.

COPPER ORES

10D-3

Table 1.--COMPARATIVE STATISTICS FOR THE COPPER ORES INDUSTRY IN THE UNITED STATES:
1954, 1939, 1929, 1919, 1909, 1902, 1889, 1880, 1870, and 1860

(For explanation of line captions and for statement on the minimum size of establishments included for each year, see INTRODUCTION)

Item	1954	1939	1929 ¹	1919 ¹	1909 ²	1902	1889 ³	1880 ²	1870 ²	1860 ²
Number of operating companies.....	179	35	(NA)	(NA)	174	159		(NA)	(NA)	(NA)
Number of establishments.....	210	(NA)	143	195	201	(NA)		(NA)	40	47
Number of mines.....	201	51	180	226	381	159	(NA)	42		
Number of mills.....	48	27	45	57	(NA)	(NA)		(NA)		
Crude ore mined.....1,000 short tons...	90,992	52,118				11,780	3,323	1,007		
Direct-smelting and leaching ores shipped.....do.....	44,056	51,658				4,905				
Crude ore and old tailings milled.....do.....	688,390	51,571				76,559				
Copper, lead, zinc, gold, and silver concentrates and gold bullion produced.....do.....	2,770	2,105	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Copper precipitates shipped ⁸.....do.....	90	(NA)				(NA)				
Recoverable copper content of direct- smelting and leaching ores, concentrates, and copper precipitates.....1,000 pounds...	⁹ 1,612,894	¹⁰ 1,384,794				¹¹ 625,005	¹¹ 220,569	¹¹ 56,115		
Value of shipments, total ¹².....\$1,000...	508,729	145,590	(NA)	181,258	134,617	(NA)	(NA)	(NA)		
Milling ores.....do.....	98,818	3,956	(NA)	1,528	10,597	(NA)	(NA)	(NA)		
Net shipments, total ¹².....do.....	409,911	141,634	283,517	179,730	124,020	51,178	19,687	8,857	5,201	3,361
Direct-smelting and leaching ores.....do.....	429,278	517,848								
Copper, lead, zinc, gold, and silver concentrates and gold bullion.....do.....	328,203	¹² 110,768	282,058	179,006	¹³ 124,020	51,178	19,687	8,857	5,201	3,361
Copper precipitates ⁸.....do.....	28,294	7,101								
Molybdenum concentrates.....do.....	17,156	¹³ 5,917	1,459	724		(NA)	(NA)	(NA)	(NA)	(NA)
Other products and services.....do.....	6,980									
Value added in mining.....do.....	334,876	108,494	221,690	130,167	86,078	39,770	15,285	7,465	4,614	2,854
Number of persons engaged, total.....	27,997	26,752	48,043	46,999	54,538	¹⁴ 27,572	8,791	6,258	5,404	5,153
Production and development workers.....	21,544	23,844	44,502	43,717	52,330	26,309	8,523	6,039	5,404	5,153
All other employees.....do.....	6,269	2,908	¹⁵ 3,465	3,179	2,129	1,263	268	219		
Proprietors and firm members.....do.....	184	...	76	103	79					
Performing manual labor.....do.....	145	...		62	42					
Man-hours worked by production and development workers, total.....1,000...	46,676	51,239								
At mines.....do.....	36,219	¹⁶ 39,708				(NA)	(NA)	(NA)	(NA)	(NA)
Underground.....do.....	13,880	¹⁶ 21,922	(NA)							
Open-pit.....do.....	11,174	¹⁶ 7,838		(NA)	(NA)					
Surface (including mine shops and yards).....do.....	11,165	¹⁶ 9,948								
At mills.....do.....	10,457	¹⁶ 10,677								
Recoverable copper content per man-hour.....Pounds...	35	27								
Principal expenses designated below, total.....\$1,000...	368,307	¹⁷ 75,704	¹⁷ 145,163	125,521	102,203	¹⁷ 34,577	¹⁷ 10,619	¹⁷ 4,606	¹⁷ 3,293	¹⁷ 2,323
Wages of production and development workers.....do.....	98,491	34,486	73,200	66,390	49,858	21,336	5,810	3,214	2,706	1,816
Salaries of all other employees.....do.....	37,574	8,078	¹⁵ 10,136	8,040	3,806	1,833	407			
Crude ore and old tailings received for milling.....do.....	100,693	(NA)	(NA)	1,528	10,597	(NA)	(NA)	(NA)	(NA)	(NA)
Supplies.....do.....	72,822	23,562	43,995	34,275	23,886			1,026	587	507
Fuel.....do.....	8,576	4,168	9,210	11,310	¹⁸ 13,399	¹⁸ 11,219	¹⁸ 4,068	366		
Purchased electric energy.....do.....	6,278	4,899	6,027	3,556				(18)	...	...
Contract work.....do.....	43,873	511	2,595	422	657	189	334	(NA)	(NA)	(NA)
Purchased machinery installed.....do.....	23,821		13,084	(NA)						
Capital expenditures, total.....do.....	82,210	(NA)	(NA)	(NA)						
Development and exploration of mineral property.....do.....	23,750		22,151	13,302	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Mill construction.....do.....	13,477	1,822	(NA)							
Other construction.....do.....	21,788									
New machinery and equipment.....do.....	21,955	2,577	(NA)	(NA)						
Used plant and equipment.....do.....	1,240	1,507								

See footnotes at end of table.

MINERAL INDUSTRIES - INDUSTRY STATISTICS

Table 1.--COMPARATIVE STATISTICS FOR THE COPPER ORES INDUSTRY IN THE UNITED STATES:
1954, 1939, 1929, 1919, 1909, 1902, 1889, 1880, 1870, and 1860--Continued

Item	1954	1939	1929 ¹	1919 ¹	1909 ²	1902	1889 ³	1880 ²	1870 ²	1860 ²
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	1,545,632	752,707	701,791	523,591	380,712	198,507	34,390	13,541	6,388	
Per production worker.....	72	32	16	12	7	198	4	2	1	
Prime movers.....	1,031,312	324,327	366,863	386,458	328,126	196,171				
Electric motors driven by purchased energy.....	514,320	428,380	334,928	137,133	52,586	2,336				
Horsepower rating of electric motors driven by energy generated at establishments reported.....	399,977	184,507	270,205	161,024	27,024	2,312	(NA)	(NA)	(NA)	(NA)
Energy used.....Million kwh equivalent...	9,255	6,693	12,200	(NA)						
Coal.....1,000 short tons...	179	360	1,006	1,381						
Fuel oils.....1,000 barrels...	301	537	2,134	1,322	(NA)	(NA)				
Natural gas.....Million cu. ft...	20,559	7,067	...	33						
Electric energy purchased.....Million kwh...	815	789	758	(NA)						
Electric energy generated and used.....do.....	1,194	417	735	(NA)						

NA Not available.

¹Excludes nonproducing operations. In 1929 and 1919, statistics for nonproducing operations are available only for the copper, lead, zinc, gold, and silver ores industries as a group. For these years, employment and principal expenses of nonproducing operations for this group of industries were about five percent of the comparable figures for producing operations. In 1939, no nonproducing establishments were classified in the copper ores industry, but nine nonproducing establishments, with an employment of 46 and principal expenses of \$92,000, were included in the copper, lead, zinc, gold, and silver ores group but not identified by individual industry. Statistics for 1909 and 1902 include nonproducing operations. It is not clear whether data for nonproducing operations in 1889 and earlier years were included in the statistics shown for those years.

²Includes some smelting and refining operations. For 1909 production workers at smelters represented approximately 13 percent of the total shown for production and development workers.

³Statistics represent Arizona, Michigan, Montana, and New Mexico only. Over 99 percent of the copper contained in copper ores was produced in these States.

⁴Leaching ores shipped in crude form from the mine to leaching plants operated in conjunction with manufacturing establishments, such as refineries, are combined with direct-smelting ores. Such leaching ores represent the major portion of the total 1954 tonnage shown but less than half of the combined value of direct-smelting and leaching ores shipped during that year. Also includes a small quantity of tailings shipped to smelters and of other shipments of ores and tailings, such as to ore buyers, which together represent approximately one percent of the tonnage shown and less than one percent of the value.

⁵Represents production of direct-smelting ores only.

⁶In addition to ores concentrated, includes ore leached at mills operated in conjunction with mining activities. Excludes ore leached in place. Tailings represent approximately two percent of this total.

⁷Crude ore only.

⁸For 1954, represents copper precipitates produced at leaching plants operated in conjunction with mining activities, as well as precipitates from ore leached in place and mine-water precipitates. The value for 1939 represents ore leached in place and mine-water precipitates only.

⁹Represents the copper content of direct-smelting and leaching ores and of copper precipitates shipped and of concentrates produced. Only the recoverable content of concentrates produced is available for 1954. Inclusion of the copper content of concentrates shipped would have resulted in a figure about one million pounds less than the total shown. The 1954 total also includes the copper content of tailings shipped to smelters and of sales to ore buyers, but the combined copper content of these shipments represents less than one percent of the total shown.

¹⁰Represents production. Revised to include the recoverable copper content of concentrates produced from purchased and custom milling ores, rather than the recoverable content of such ores shipped during the year.

¹¹Content of ores shipped or milled.

¹²The total value of shipments contains duplication since it includes the value of milling ores shipped as well as the value of concentrates produced from such ores. The net value of shipments excludes this duplication. Figures for "Net value" represent production for 1939 and earlier years. The value of concentrates shown for 1939 has been revised, for approximate comparability with 1954, by inclusion of the value of milling ores shipped and the value added by milling purchased ores. It is recognized that to the extent that any milling ores were shipped to establishments in other industries, or were received from such establishments, this adjustment is subject to error. This adjustment, which has also been made in the statistics by States in later tables, would similarly be affected by interstate shipments of milling ores. Statistics for 1902 earlier years exclude the value of secondary products and services. The figure shown for 1889 represents the value of refined copper. For 1880, the value figure excludes 5,410,546 pounds of copper produced in States west of the 100th meridian and 153,880 pounds produced in Tennessee. All figures for 1939 and prior years represent production, except where otherwise indicated above.

¹³Includes material valued chiefly for its copper content, amounting to approximately three percent of this total value.

¹⁴Figures for average employment were reduced to a 300-day basis for establishments which operated for a shorter period.

¹⁵Excludes employees at central offices maintained independently of mine offices. Statistics for these workers are available only for the copper, lead, zinc, gold, and silver ores industries as a group and not separately by industry. There were a total of 301 such employees paid \$1,598,000 in salaries for this group of industries.

¹⁶Excludes man-hours worked on inactive days. Figures for man-hours on inactive days, amounting to approximately 854,000, are not available by department.

¹⁷Excludes the cost of crude ore and old tailings received from other establishments for milling and, for 1880 and earlier years, the cost of contract work.

¹⁸For 1902, statistics for cost of fuel are included with cost of supplies. Statistics for cost of purchased power for 1902 and earlier years and cost of fuel for 1889, 1870, and 1860 were not explicitly requested but probably are included in part in the figure reported for supplies.

¹⁹See footnote 14.

COPPER ORES

10D-5

Table 2.--COMPARATIVE STATISTICS FOR THE COPPER ORES INDUSTRY, BY GEOGRAPHIC DIVISIONS AND STATES: 1954, 1939, 1929, AND 1919

(For explanation of column captions, see INTRODUCTION)

Geographic division, State, and year	Number of mines	Value of shipments (\$1,000)	Number of employees		Designated principal expenses (\$1,000)						Aggregate horse- power rating of power equipment
			Production workers	All other employees	Wages of production and develop- ment workers	Salaries of all other employees	Supplies and crude ore and old tailings received for milling	Fuels	Purchased electric energy	Contract work	
United States, total											
1954 ¹	201	508,729	21,544	6,269	98,491	37,574	173,515	8,576	6,278	43,873	1,545,632
1939.....	51	145,590	23,844	2,908	34,486	8,078	² 23,562	4,168	4,899	511	752,707
1929 ³	180	⁴ 283,517	44,502	⁵ 3,465	73,200	⁵ 10,136	² 43,995	9,210	6,027	2,595	701,791
1919 ³	226	181,258	43,717	3,179	66,390	8,040	35,803	11,310	3,556	422	523,591
East and South, total											
1954.....	9	24,701	2,289	⁶ 1,608	8,624	⁶ 11,599	11,974	1,539	994	6,655	197,246
1939.....	9	11,575	3,565	⁷ 544	3,849	⁷ 1,864	² 1,851	1,127	332	66	104,534
1919 ³	36	35,641	12,780	725	15,306	1,514	5,896	4,194	177	...	176,359
Michigan											
1954.....	5	22,396	2,094	443	7,824	2,120	⁸ 17,979	1,531	868	(⁸)	192,600
1939.....	6	9,411	3,166	239	3,268	520	² 1,460	1,126	171	66	91,545
1929 ³	18	⁴ 29,684	7,834	⁵ 479	9,838	⁵ 1,230	² 4,692	2,398	168	33	131,593
1919 ³	28	34,476	12,235	682	14,609	1,440	5,612	4,147	114	...	169,589
Other States ⁹											
1954.....	4	2,305	194	20	800	133	⁸ 650	8	126	(⁸)	4,646
1939.....	3	2,164	399	38	581	99	² 391	1	161	...	12,989
1919 ³	8	1,165	545	43	697	74	284	47	63	...	6,770
West, total											
1954.....	192	484,028	19,256	4,661	89,867	25,975	161,541	7,037	5,284	37,218	1,348,386
1939.....	42	134,015	20,279	2,364	30,637	6,214	² 21,711	3,041	4,567	445	648,173
1919 ³	190	145,617	30,937	2,454	51,084	6,526	29,907	7,116	3,379	422	347,232
Arizona											
1954.....	89	201,691	9,420	2,072	48,212	11,956	39,029	3,710	2,390	27,706	734,196
1939.....	15	46,383	6,953	784	11,222	2,040	² 8,981	1,740	723	62	249,946
1929 ³	68	⁴ 113,981	15,564	⁵ 1,403	26,947	⁵ 3,823	² 16,919	4,055	1,488	1,130	192,753
1919 ³	89	82,689	14,237	1,360	24,856	3,539	14,983	4,035	1,162	292	157,599
Nevada											
1954.....	25	42,073	1,295	217	5,354	1,184	19,338	286	1,315	8,393	126,195
1939.....	5	11,323	2,102	214	3,257	559	² 1,669	275	492	256	40,084
1929 ³	13	⁴ 19,985	2,698	⁵ 288	4,885	⁵ 763	² 3,635	847	112	187	43,600
Montana and Utah											
1954.....	22	205,167	6,332	2,066	27,089	11,405	97,040	2,323	1,352	741	400,840
1929 ³	36	⁴ 96,382	13,668	⁵ 872	24,187	⁵ 3,301	² 14,045	574	3,739	1,078	249,953
Other States ¹⁰											
1954.....	56	35,097	2,209	306	9,212	1,430	6,134	718	227	378	87,155

¹In addition to copper ores establishments in the United States, there were two establishments in Alaska primarily engaged in exploration and development activity with a combined employment of less than ten workers and total principal expenses designated above, under \$60,000.

²Excludes the cost of crude ore and old tailings received by milling.

³Excludes nonproducing operations. See table 1, footnote 1.

⁴Represents net value. See table 1, footnote 12.

⁵Excludes employees at central offices. See table 1, footnote 15.

⁶Includes 1,145 salaried employees at central offices in New York, paid \$9,346,000 in salaries.

⁷Includes 267 salaried employees at central offices in New York and Massachusetts, paid \$1,245,000 in salaries.

⁸Cost of contract work is included with supplies.

⁹For 1954, represents Vermont, North Carolina, and Texas. For 1939, represents Pennsylvania, North Carolina, and Tennessee and, for 1919, Vermont, Missouri, and Tennessee. In 1929, copper ores establishments were reported in Vermont, North Carolina, Tennessee, and Texas, but statistics for these establishments were combined with those for several Western States.

¹⁰Represents Idaho, Wyoming, Colorado, New Mexico, Washington, Oregon, and California. Statistics are not available for this combination of States for years prior to 1954. However, copper ores establishments were reported in all these States, except for Wyoming and Oregon in 1939, Oregon in 1929, and Wyoming in 1919.

MINERAL INDUSTRIES - INDUSTRY STATISTICS

Table 3.--DETAILED STATISTICS FOR THE COPPER ORES INDUSTRY, BY GEOGRAPHIC DIVISIONS AND STATES: 1954

(For explanation of line captions, see INTRODUCTION)

Item	United States, total	East and South			West				
		Total	Michigan	Other States (Vermont, North Carolina, and Texas)	Total	Arizona	Nevada	Montana and Utah	Other States (Idaho, Wyoming, Colorado, New Mexico, Washington, Oregon, and California)
Number of operating companies.....	179	7	3	4	172	83	21	22	54
Number of establishments.....	210	12	8	4	198	89	27	25	57
Number of mines.....	201	9	5	4	192	89	25	22	56
Number of mills.....	48	6	5	1	42	21	4	3	14
Crude ore mined, total....1,000 short tons...	90,992	3,252	(D)	(D)	87,740	43,095	9,616	27,861	7,168
From underground operations....do.....	13,294	3,167	(D)	(D)	10,127	5,883	27	3,680	537
From open-pit operations....do.....	77,698	85	...	85	77,613	37,212	9,589	24,181	6,631
Direct-smelting and leaching ores shipped.....do.....	14,056	...	...	...	14,056	13,838	68	58	92
Crude ore and old tailings milled.....do.....	88,390	4,600	24,290	310	83,790	39,352	(D)	(D)	7,073
Copper, lead, zinc, gold, and silver concentrates shipped.....do.....	2,768	55	37	18	2,713	1,288	(D)	(D)	217
Copper precipitates shipped ³.....do.....	90	...	...	...	90	24	(D)	(D)	18
Recoverable copper content of direct-shipping and leaching ores, concentrates, and copper precipitates ⁴.....1,000 pounds...	1,612,894	55,889	47,185	8,704	1,557,005	754,512	140,011	533,738	128,744
Value of shipments, total.....\$1,000...	508,729	24,701	22,396	2,305	484,028	201,691	42,073	205,167	35,097
Milling ores.....do.....	98,818	(D)	(D)	...	(D)	917	(D)	(D)	27
Net shipments, total.....do.....	409,911	(D)	(D)	2,305	(D)	200,774	(D)	(D)	35,070
Direct-smelting and leaching ores.....do.....	129,278	...	...	...	29,278	27,751	29,074	111,088	436
Copper, lead, zinc, gold, and silver concentrates and gold bullion.....do.....	328,203	13,377	11,157	2,220	314,826	160,456			
Copper precipitates ³.....do.....	28,294	...	...	...	28,294	9,845			
Other products and services.....do.....	24,136	(D)	(D)	85	(D)	2,722			
Value added in mining.....do.....	334,876	15,728	14,126	1,602	319,148	165,668	15,712	104,681	33,087
Number of persons engaged, total.....	27,997	3,896	2,537	214	24,101	11,589	1,538	8,419	2,555
Production and development workers.....	21,544	2,288	2,094	194	19,256	9,420	1,295	6,332	2,209
All other employees.....	6,269	1,608	443	20	4,661	2,072	217	2,066	306
Proprietors and firm members.....	184	...	...	...	184	97	26	21	40
Performing manual labor.....	145	...	...	...	145	77	19	16	33
Man-hours worked by production and development workers, total.....1,000...	46,676	4,953	4,479	474	41,723	21,852	2,557	12,631	4,683
At mines, total.....do.....	36,219	4,202	3,795	407	32,017	18,479	1,461	9,165	2,912
Underground.....do.....	13,880	2,577	2,226	351	11,303	6,610	90	3,934	669
Open-pit.....do.....	11,174	...	...	...	11,174	5,371	630	3,695	1,478
Surface (including mine shops and yards).....do.....	11,165	1,625	1,569	56	9,540	6,498	741	1,536	765
At mills.....do.....	10,457	751	684	67	9,706	3,373	1,096	3,466	1,771
Man-hours spent on development and exploration work (included above)....do.....	5,173	574	573	1	4,599	2,340	417	129	1,713
Recoverable copper content per man-hour.....Pounds....	35	11	11	18	37	35	55	42	27
Value of net shipments per man-hour....\$1....	8.78	3.60	3.46	4.86	9.40	9.19	(⁶)	(⁷)	7.49
Principal expenses designated below, total.....\$1,000...	368,307	41,385	30,322	1,717	326,922	133,003	35,870	139,950	18,099
Wages of production and development workers.....do.....	98,491	8,624	7,824	800	89,867	48,212	5,354	27,089	9,212
Salaries of all other employees.....do.....	37,574	11,599	2,120	133	25,975	11,956	1,184	11,405	1,430
Supplies and crude ore and old tailings received for milling.....do.....	173,515	11,974	17,979	8650	161,541	39,029	19,338	97,040	6,134
Fuel.....do.....	8,576	1,539	1,531	8	7,037	3,710	286	2,323	718
Purchased electric energy.....do.....	6,278	994	868	126	5,284	2,390	1,315	1,352	227
Contract work.....do.....	43,873	6,655	(⁸)	(⁸)	37,218	27,706	8,393	741	378
Purchased machinery installed.....do.....	23,821	11,328	11,271	57	12,493	7,571	464	3,245	1,213

See footnotes at end of table.

COPPER ORES

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Table 3.--DETAILED STATISTICS FOR THE COPPER ORES INDUSTRY, BY GEOGRAPHIC DIVISIONS AND STATES: 1954--Continued

(For explanation of line captions, see INTRODUCTION)

Item	United States, total	East and South			West				
		Total	Michigan	Other States (Vermont, North Carolina, and Texas)	Total	Arizona	Nevada	Montana and Utah	Other States (Idaho, Wyoming, Colorado, New Mexico, Washington, Oregon, and California)
Capital expenditures, total.....\$1,000...	82,210	23,517	23,379	138	58,693	44,383	3,435	4,215	6,660
Development and exploration of mineral property.....do.....	23,750	5,488	5,407	81	18,262	10,249	2,601	99	5,313
Mill construction.....do.....	13,477	2,490	2,490	...	10,987	9,773			80
Other construction.....do.....	21,788	4,211	4,211	...	17,577	17,082	370	1,184	75
New machinery and equipment.....do.....	21,955	11,328	11,271	57	10,627	6,101	459	2,906	1,161
Used plant and equipment.....do.....	1,240	...	...	...	1,240	1,178	5	26	31
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	1,545,632	197,246	192,600	4,646	1,348,386	734,196	126,195	400,840	87,155
Per production worker.....	72	86	92	24	70	78	97	63	39
Prime movers.....	1,031,312	152,664	151,674	990	878,648	540,429	41,682	230,892	65,645
Electric motors driven by purchased energy.	514,320	44,582	40,926	3,656	469,738	193,767	84,513	169,948	21,510
Horsepower rating of electric motors driven by energy generated at establishments reported.....	399,977	32,392	32,392	...	367,585	222,127	...	(D)	(D)
Energy used.....Million kwh equivalent...	9,255	1,367	1,354	13	7,888	3,564	209	3,328	787
Coal.....1,000 short tons...	179	155	155	...	24	1	1	21	1
Fuel oils.....1,000 barrels...	301	47	46	1	254	191	32	8	23
Natural gas.....Million cu.ft...	20,559	...	...	...	20,559	9,173	...	(D)	(D)
Electric energy purchased....Million kwh...	815	86	75	11	729	301	128	269	31
Electric energy generated and used...do.....	1,194	77	77	...	1,117	(D)	...	(D)	(D)
Water intake, including mine water used.....Million gallons...	59,112	15,800	15,577	223	43,312	14,155	4,079	22,457	2,621
Per production worker.....do.....	2.74	6.91	7.44	1.15	2.25	1.50	3.15	3.55	1.19

D Withheld to avoid approximately disclosing figures for individual companies.

¹See table 1, footnote 4.²Tailings represent somewhat less than one-half of this total. See table 1, footnote 6.³See table 1, footnote 8.⁴See table 1, footnote 9.⁵See table 2, footnote 6.⁶Between 11.00 and 12.00.⁷Between 10.00 and 11.00.⁸Cost of contract work is included with supplies.

Table 4.--DETAILED STATISTICS FOR THE COPPER ORES INDUSTRY

(For explanation of line

Line no.	Item	All types of establishments	Type of establishment				
			Producing establishments				Non-producing establishments
			Total	Mines only ¹	Mines with producing mills	Mill only ^{2 3}	
1	Number of operating companies.....	179	136	116	22	8	48
2	Number of establishments.....	210	159	123	27	9	51
3	Number of mines.....	201	151	123	27	1	50
4	Number of mills.....	48	40	4	27	9	8
5	Crude ore mined.....1,000 short tons...	90,992	90,992	35,741	55,251	...	...
6	Gross copper content.....1,000 pounds...	1,802,885	1,802,885	722,145	1,080,740	...	...
7	Value of shipments.....\$1,000...	508,729	508,729	104,305	257,748	146,676	...
8	Value added in mining.....do....	334,876	334,001	84,002	208,791	41,208	875
9	Number of persons engaged, total.....	627,997	25,449	7,049	15,347	3,053	821
10	Production and development workers.....	21,544	20,867	5,999	12,659	2,209	677
11	All other employees.....	66,269	4,426	901	2,683	842	116
12	Proprietors and firm members.....	184	156	149	5	2	28
13	Performing manual labor.....	145	124	119	4	1	21
14	Man-hours worked by production and development workers, total..1,000...	46,676	44,896	11,984	28,312	4,600	1,780
15	At mines, total.....do....	36,219	34,450	11,984	22,466	...	1,769
16	Underground and open-pit.....do....	25,054	24,007	9,531	14,476	...	1,047
17	Surface (including mine shops and yards).....do....	11,165	10,443	2,453	7,990	...	722
18	At mills.....do....	10,457	10,446	...	5,846	4,600	11
19	Man-hours spent on development and exploration work.....do....	5,173	3,625	707	2,918	...	1,548
20	Crude ore mined per man-hour at mine.....short tons...	2.5	2.6	3.0	2.5	xxx	xxx
21	Gross copper content of crude ore mined per man-hour at mine.....pounds...	50	52	60	48	xxx	xxx
22	Principal expenses designated below, total.....\$1,000...	6368,307	323,670	51,531	152,470	119,669	31,583
23	Wages of production and development workers.....do....	98,491	94,589	25,020	60,026	9,543	3,902
24	Salaries of all other employees.....do....	637,574	23,766	5,235	14,772	3,759	754
25	Supplies and crude ore and old tailings received for milling.....do....	173,515	169,827	12,441	54,694	102,692	3,688
26	Fuel.....do....	8,576	8,525	565	5,881	2,079	51
27	Purchased electric energy.....do....	6,278	6,004	1,415	2,993	1,596	274
28	Contract work.....do....	43,873	20,959	6,855	14,104	...	22,914
29	Purchased machinery installed.....do....	23,821	23,151	2,379	19,632	1,140	670
30	Capital expenditures, total.....do....	82,210	53,738	3,352	48,347	2,039	28,472
31	Development and exploration of mineral property.....do....	23,750	15,907	763	15,144	...	7,843
32	Mill construction.....do....	13,477	7,465	9	6,565	891	6,012
33	Other construction.....do....	21,788	7,825	387	7,430	8	13,963
34	New machinery and equipment.....do....	21,955	21,336	2,014	18,187	1,135	619
35	Used plant and equipment.....do....	1,240	1,205	179	1,021	5	35
36	Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	1,545,632	1,514,243	301,014	977,861	235,368	31,389
37	Per production worker.....	72	73	50	77	107	46
38	Prime movers.....	1,031,312	1,010,011	109,738	748,974	151,299	21,301
39	Electric motors driven by purchased energy.....	514,320	504,232	191,276	228,887	84,069	10,088
40	Horsepower rating of electric motors driven by energy generated at establishments reported.....	399,977	397,402	145	275,595	121,662	2,575
41	Energy used.....Million kwh equivalent...	9,255	9,192	704	5,481	3,007	63
42	Coal.....1,000 short tons...	179	179	26	156	17	..
43	Fuel oils.....1,000 barrels...	301	298	20	274	4	3
44	Natural gas.....Million cu. ft.	20,559	20,476	601	11,293	8,582	83
45	Electric energy purchased.....Million kwh...	815	787	253	346	188	28
46	Electric energy generated and used.....do....	1,194	1,188	...	799	389	6
47	Water intake, including mine water used.....Million gallons...	59,112	58,738	1,110	27,629	29,999	374
48	Per production worker.....do....	2.74	2.82	0.19	2.18	13.58	0.55

¹Includes four mines with nonproducing mills, accounting for less than one percent of the value of shipments for this group.²Mills reporting flotation as the principal milling method account for more than 95 percent of the value of shipments reported by mills operated in conjunction with mines and over 99 percent of the shipments reported by separately operated mills.³Includes one mill with a nonproducing mine accounting for less than one percent of the value of shipments for this group.⁴Establishments reporting block caving account for the major portion of the value of shipments for this group. Also includes mines not reporting their principal mining method; such mines account for less than five percent of the value of shipments for this group. See, also footnote 5 below.

COPPER ORES

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IN THE UNITED STATES, BY TYPE OF OPERATION: 1954

captions see INTRODUCTION)

Producing mines (with or without mills), by type of mine and mining method									
Total	Open-pit mines		Combination open-pit and underground mines	Underground mines, by principal mining method					Line no.
	Without mill	With mill		Total	Open stoping	Shrinkage stoping	Square-setting	Block caving, cut-and-fill stoping, and other methods ⁴	
132	22	6	6	105	37	8	8	56	1
150	24	8	6	112	40	8	8	56	2
150	24	8	6	112	40	8	8	56	3
31	...	8	4	19	7	4	3	5	4
90,992	30,081	40,769	⁵ 11,883	8,259	3,161	421	1,118	3,559	5
1,802,885	553,993	686,848	⁵ 304,399	257,645	63,337	8,832	128,906	56,570	6
362,053	76,458	154,102	60,489	71,004	23,503	2,137	29,518	15,846	7
292,793	64,683	129,252	44,730	54,428	16,408	1,760	24,492	11,468	8
22,396	2,816	7,352	4,963	7,265	2,830	317	2,452	1,666	9
18,658	2,397	5,975	4,229	6,057	2,286	277	2,148	1,346	10
3,584	391	1,377	733	1,083	496	35	296	256	11
154	28	...	1	125	48	5	8	64	12
123	23	...	1	99	32	3	4	60	13
40,296	4,759	14,087	8,281	13,169	4,923	650	4,728	2,868	14
34,450	4,759	9,922	7,672	12,097	4,485	600	4,560	2,452	15
24,007	4,062	6,477	⁷ 5,332	8,136	2,733	426	3,475	1,502	16
10,443	697	3,445	2,340	3,961	1,752	174	1,085	950	17
5,846	...	4,165	609	1,072	438	50	168	416	18
3,625	311	1,943	1	1,370	647	37	167	519	19
2.6	6.3	4.1	1.5	0.7	0.7	0.7	0.2	1.5	20
52	116	69	40	21	14	15	28	23	21
204,001	24,169	76,173	37,845	65,814	30,476	1,843	18,508	14,987	22
85,046	10,353	29,099	17,496	28,098	8,692	1,128	11,298	6,980	23
20,007	2,172	7,351	4,592	5,892	2,345	155	1,843	1,549	24
67,135	6,603	32,501	8,884	19,147	10,858	386	3,925	3,978	25
6,446	200	2,871	1,156	2,219	1,573	21	187	438	26
4,408	360	1,236	1,103	1,709	478	111	863	257	27
20,959	4,481	3,115	4,614	8,749	6,530	42	392	1,785	28
22,011	1,427	5,432	2,267	12,885	11,316	19	310	1,240	29
51,699	1,296	20,305	2,265	27,833	23,660	202	651	3,320	30
15,907	79	7,586	1	8,241	5,699	176	149	2,217	31
6,574	...	3,883	42	2,649	2,453	13	21	162	32
7,817	95	2,806	436	4,480	4,211	...	232	37	33
20,201	1,107	5,159	1,775	12,160	11,286	6	214	654	34
1,200	15	871	11	303	11	7	35	250	35
1,278,875	124,238	438,440	282,554	383,643	191,954	10,270	87,675	93,744	36
69	52	82	67	63	84	37	41	70	37
858,712	84,040	420,809	115,061	238,802	159,252	1,896	32,214	45,440	38
420,163	40,198	67,631	167,493	144,841	32,702	8,374	55,461	48,304	39
275,740	...	175,488	27,757	72,495	32,297	87	847	39,264	40
6,185	174	2,682	1,198	2,131	1,317	22	327	465	41
162	6	2	...	154	153	1	...	...	42
294	17	169	50	58	48	1	8	1	43
11,894	...	6,893	2,951	2,050	...	2	654	1,394	44
599	84	150	180	185	42	10	106	27	45
799	...	595	51	153	70	...	1	82	46
28,739	377	12,087	4,783	11,492	10,362	101	338	691	47
1.54	0.16	2.02	1.13	1.90	4.53	0.37	0.16	0.51	48

⁵Approximately 5,035,000 tons, containing 161,283,000 pounds of copper on a gross weight basis, were obtained from underground operations and 6,848,000 tons, with a gross copper content of 143,116,000 pounds, from open-pit operations. Approximately 95 percent of the ore obtained from underground operations was mined principally by block caving methods and most of the balance by shrinkage stoping methods.

⁶Includes 1,727 salaried employees at central offices paid \$13,054,000 in salaries, not classified by type of operation.

⁷Approximately 4,699,000 man-hours were spent in underground mining and 633,000 man-hours in open-pit mining.

MINERAL INDUSTRIES - INDUSTRY STATISTICS

Table 5A.--PRODUCTS OF THE COPPER ORES INDUSTRY BY GEOGRAPHIC DIVISIONS AND STATES, 1954 AND 1939,
AND COPPER CONCENTRATES AND PRECIPITATES PRODUCED IN ALL MINERAL INDUSTRIES, 1954

(For explanation of column captions, see INTRODUCTION)

Product, geographic division, and State	1954									1939 production	
	Production (1,000 short tons)	Shipments and interplant transfers		Quantities of metals contained							
		Quantity (1,000 short tons)	Value f.o.b. mine or mill (\$1,000)	Basis	Copper (1,000 pounds)	Lead (1,000 pounds)	Zinc (1,000 pounds)	Gold (1,000 fine ounces)	Silver (1,000 fine ounces)	Quantity (1,000 short tons)	Value f.o.b. mine or mill (\$1,000)
UNITED STATES											
COPPER ORES INDUSTRY											
All products and services, total..	xxx	xxx	508,729	Recoverable.	1,612,894	202	9,830	523.4	8,110	xxx	145,590
Primary Products											
Crude ore mined, total.....	90,992	xxx	xxx	Gross.....	1,802,885	261	14,395	699.8	9,698	52,118	xxx
From underground operations.....	13,294	xxx	xxx	....do.....	418,928	191	14,395	91.4	4,884	(NA)	xxx
From open-pit operations.....	77,698	xxx	xxx	....do.....	1,383,957	70	...	608.4	4,814	(NA)	xxx
Milling ores ¹	xxx	35,556	98,818	....do.....	712,615	19	2,058	552.7	5,179	2,360	3,956
Direct-smelting and leaching ores....	xxx	² 4,056	² 29,278	Recoverable.	125,456	181	890	35.3	1,452	} ³ 1,658	} ³ 17,848
Copper concentrates.....	2,761	2,759	327,771	Gross.....	139,128	242	1,393	35.4	1,453		
Copper precipitates ⁷	xxx	90	28,294	Recoverable ⁴	1,351,139	(D)	241	486.9	6,650	⁵ 2,105	⁵ 6110,768
				Recoverable.	136,018	xxx	xxx	xxx	xxx	(NA)	7,101
Secondary Products and Services											
Zinc and gold concentrates and gold bullion.....	9	9	432	Recoverable ⁴	281	(D)	8,699	1.2	8	(⁵)	(⁵)
Molybdenum concentrates.....	14	17	17,156	.....	xxx	xxx	xxx	xxx	xxx	} xxx	} ⁸ 5,617
Miscellaneous secondary products.....	xxx	xxx	⁹ 3,886	.....	xxx	xxx	xxx	xxx	xxx		
Electric energy generated and sold...	xxx	¹⁰ 413	2,582	.....	xxx	xxx	xxx	xxx	xxx	¹⁰ 21	240
Receipts for services performed for others.....	xxx	xxx	¹¹ 512	.....	xxx	xxx	xxx	xxx	xxx	xxx	60
ALL MINERAL INDUSTRIES											
Copper concentrates.....	2,838	2,835	336,340	Recoverable ⁴	1,384,776	789	395	495.1	6,853	(NA)	(NA)
Copper precipitates ⁷	xxx	90	28,323	Recoverable.	136,138	xxx	xxx	xxx	xxx	(NA)	(NA)
EAST AND SOUTH											
COPPER ORES INDUSTRY											
All products and services, total..	xxx	xxx	24,701	....do.....	55,889	...	...	0.2	48	xxx	11,575
Crude ore mined, total.....	3,252	xxx	xxx	Gross.....	63,251	...	...	0.3	353	2,473	xxx
From underground operations.....	3,167	xxx	xxx	....do.....	61,563	...	...	0.3	342	(NA)	xxx
From open-pit operations.....	85	xxx	xxx	....do.....	1,688	...	...	...	11	(NA)	xxx
Direct-smelting ores.....	...	...	...	.....	...	...	...	...	...	95	320
Copper concentrates.....	60	55	13,377	Recoverable ⁴	55,889	...	...	0.2	48	114	10,894
Milling ores shipped for treatment, except for milling on a toll basis, electric energy generated and sold, and other secondary products	xxx	xxx	11,324	.....	xxx	xxx	xxx	xxx	xxx	xxx	354
Receipts for services performed for others.....	xxx	xxx	...	.....	xxx	xxx	xxx	xxx	xxx	xxx	7
ALL MINERAL INDUSTRIES											
Copper concentrates.....	121	115	19,769	Recoverable ⁴	82,378	(D)	...	1.7	121	(NA)	(NA)
MICHIGAN											
COPPER ORES INDUSTRY											
All products and services, total..	xxx	xxx	22,396	Recoverable.	47,185	...	...	...	...	xxx	9,412
Direct-smelting ores.....	...	...	...	.....	...	...	...	...	...	1	87
Copper concentrates ¹²	42	37	11,157	Recoverable ⁴	47,185	...	...	...	...	67	9,299
Milling ores shipped for treatment, except for milling on a toll basis, electric energy generated and sold, and other secondary products	xxx	xxx	11,239	.....	xxx	xxx	xxx	xxx	xxx	xxx	19
Receipts for services performed for others.....	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	7

See footnotes, at end of table.

COPPER ORES

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Table 5A.--PRODUCTS OF THE COPPER ORES INDUSTRY BY GEOGRAPHIC DIVISIONS AND STATES, 1954 AND 1939,
AND COPPER CONCENTRATES AND PRECIPITATES PRODUCED IN ALL MINERAL INDUSTRIES, 1954--Continued

(For explanation of column captions, see INTRODUCTION)

Product, geographic division, and State	1954									1939 production	
	Production (1,000 short tons)	Shipments and interplant transfers		Quantities of metals contained							
		Quantity (1,000 short tons)	Value f.o.b. mine or mill (\$1,000)	Basis	Copper (1,000 pounds)	Lead (1,000 pounds)	Zinc (1,000 pounds)	Gold (1,000 fine ounces)	Silver (1,000 fine ounces)	Quantity (1,000 short tons)	Value f.o.b. mine or mill (\$1,000)
OTHER STATES ¹³											
COPPER ORES INDUSTRY											
All products and services, total..	xxx	xxx	2,305	Recoverable.	8,704	...	...	0.2	48	xxx	2,163
Primary Products											
Direct-smelting ores.....	...	...	...	.....	...	...	...	...	...	94	233
Copper concentrates.....	18	18	2,220	Recoverable ⁴	8,704	...	...	...	48	47	1,595
Secondary Products and Services											
Secondary products.....	xxx	xxx	85	.....	xxx	xxx	xxx	xxx	xxx	xxx	335
ALL MINERAL INDUSTRIES											
Copper concentrates.....	79	78	8,612	Recoverable ⁴	35,193	(D)	...	1.7	121	(NA)	(NA)
WEST											
COPPER ORES INDUSTRY											
All products and services, total..	xxx	xxx	484,028	Recoverable.	1,557,005	202	9,830	523.2	8,062	xxx	134,015
Crude ore mined, total.....	87,740	xxx	xxx	Gross.....	1,739,634	261	14,395	699.5	9,345	49,645	xxx
From underground operations.....	10,127	xxx	xxx	....do.....	357,365	261	{ 14,395	91.1	4,542	(NA)	xxx
From open-pit operations.....	77,613	xxx	xxx	....do.....	1,382,269			608.4	4,803	(NA)	xxx
Direct-smelting and leaching ores....	xxx	² 4,056	² 29,278	Recoverable.	125,456	181	890	35.3	1,452	³ 1,563	³ 17,528
Copper concentrates.....	2,701	2,704	314,394	Gross.....	139,128	242	1,393	35.4	1,453	⁵ 1,991	⁵ 699,874
Copper precipitates ⁷	xxx	90	28,294	Recoverable ⁴	1,295,250	(D)	241	486.7	6,602			(NA)	7,101
Zinc and gold concentrates and gold bullion.....	9	9	432	Recoverable.	136,018	xxx	xxx	xxx	xxx	(⁵)	(⁵)
Molybdenum concentrates.....	14	17	17,156	Recoverable ⁴	281	(D)	8,699	1.2	8	xxx	89,459
Milling ores, electric energy generated and sold, and other secondary products not specified above.....	xxx	xxx	93,962	xxx	xxx	xxx	xxx	xxx			xxx	53
Receipts for services performed for others.....	xxx	xxx	¹¹ 512	.....	xxx	xxx	xxx	xxx	xxx	xxx	53
ALL MINERAL INDUSTRIES											
Copper concentrates.....	2,717	2,720	316,571	Recoverable ⁴	1,302,398	(D)	395	493.4	6,732	(NA)	(NA)
Copper precipitates ⁷	xxx	90	28,323	Recoverable.	136,138	xxx	xxx	xxx	xxx	(NA)	(NA)
ARIZONA											
COPPER ORES INDUSTRY											
All products and services, total..	xxx	xxx	201,691	....do.....	754,512	7	9,489	95.2	3,424	xxx	46,383
Primary Products											
Crude ore mined, total.....	43,095	xxx	xxx	Gross.....	863,315	39	12,808	110.7	3,882	17,107	xxx
From underground operations.....	5,883	xxx	xxx	....do.....	215,003	39	12,808	54.2	2,288	(NA)	xxx
From open-pit operations.....	37,212	xxx	xxx	....do.....	648,312	...	...	56.5	1,594	(NA)	xxx
Milling ores ¹	xxx	33	917	....do.....	3,620	(D)	2,058	1.9	47	...	...
Direct-smelting and leaching ores....	xxx	²³ 838	² 27,751	Recoverable.	119,065	(D)	833	33.6	1,342	³ 1,396	³ 15,730
Copper concentrates.....	1,276	1,279	160,099	Gross.....	131,711	25	1,325	33.6	1,343			^{5}600	^{5}24,261
Copper precipitates ⁷	xxx	24	9,845	Recoverable ⁴	599,167	...	241	61.6	2,075	(NA)	5,776
Secondary Products and Services											
Zinc concentrates.....	9	9	357	Recoverable ⁴	281	(D)	8,415	...	7	(⁵)	(⁵)
Electric energy generated and sold, other secondary products, and receipts for services.....	xxx	xxx	¹¹² 722	.....	xxx	xxx	xxx	xxx	xxx	xxx	⁸ 616
ALL MINERAL INDUSTRIES											
Copper concentrates.....	1,276	1,279	160,110	Recoverable ⁴	599,231	...	243	61.6	2,076	(NA)	(NA)
Copper precipitates ⁷	xxx	24	9,845	Recoverable.	35,999	...	...	...	...	(NA)	(NA)

See footnotes at end of table.

MINERAL INDUSTRIES - INDUSTRY STATISTICS

Table 5A.--PRODUCTS OF THE COPPER ORES INDUSTRY BY GEOGRAPHIC DIVISIONS AND STATES, 1954 AND 1939, AND COPPER CONCENTRATES AND PRECIPITATES PRODUCED IN ALL MINERAL INDUSTRIES, 1954--Continued

(For explanation of column captions, see INTRODUCTION)

Product, geographic division, and State	1954									1939 production	
	Production (1,000 short tons)	Shipments and interplant transfers		Quantities of metals contained						Quantity (1,000 short tons)	Value f.o.b. mine or mill (\$1,000)
		Quantity (1,000 short tons)	Value f.o.b. mine or mill (\$1,000)	Basis	Copper (1,000 pounds)	Lead (1,000 pounds)	Zinc (1,000 pounds)	Gold (1,000 fine ounces)	Silver (1,000 fine ounces)		
<u>OTHER STATES¹⁴</u>											
<u>COPPER ORES INDUSTRY</u>											
All products and services, total..	xxx	xxx	282,337	Recoverable.	802,493	195	341	428.0	4,638	xxx	87,632
Crude ore mined, total.....	44,645	xxx	xxx	Gross.....	876,319	222	1,587	588.8	5,463	32,538	xxx
From underground operations.....	4,244	xxx	xxx	....do.....	142,362	222	{ 1,587	36.9	2,254	(NA)	xxx
From open-pit operations.....	40,401	xxx	xxx	....do.....	733,957			551.9	3,209	(NA)	xxx
Direct-smelting and leaching ores....	xxx	218	21,527	Recoverable.	6,391	(D)	57	1.7	110	} 3167	31,798
Copper concentrates.....	1,425	1,425	154,295	Gross.....	7,417	217	68	1.8	110		
Copper precipitates ⁷	xxx	66	18,449	Recoverable ⁴	696,083	(D)	...	425.1	4,527	51,391	5 675,613
Zinc and gold concentrates and gold bullion.....	(15)	(15)	75	Recoverable ⁴	100,019	xxx	xxx	xxx	xxx	(NA)	1,325
Milling ores, electric energy generated and sold, other secondary products, and receipts for services..	xxx	xxx	1107,991	.....	xxx	xxx	xxx	xxx	xxx	xxx	4,940
<u>ALL MINERAL INDUSTRIES</u>											
Copper concentrates.....	1,441	1,441	156,461	Recoverable ⁴	703,167	(D)	152	431.8	4,656	(NA)	(NA)
Copper precipitates ⁷	xxx	66	18,478	Recoverable.	100,139	xxx	xxx	xxx	xxx	(NA)	(NA)

xxx Not applicable.

D Withheld to avoid approximately disclosing figures for individual companies.

NA Not available.

¹Statistics for both 1954 and 1939 represent shipments. Figures shown may include old tailings; separate figures on any shipments of old tailings to other mills were not obtained in either year.²See table 1, footnote 4.³See table 1, footnote 5.⁴Recoverable content of concentrates produced. See table 1, footnote 9.⁵Figures for lead, zinc, gold, and silver concentrates, if any, are included with copper concentrates.⁶Revised for approximate comparability with 1954 by inclusion of the value of milling ores shipped and the value added by milling purchased ores.⁷See table 1, footnote 8.⁸Includes material valued chiefly for its copper content amounting to approximately three percent of the value shown for the United States and about a third of the figure shown for Arizona.⁹Represents, in order of value, copper compounds produced by leaching copper scrap, pyrite concentrates, sand, and tungsten and manganese concentrates.¹⁰Millions of kilowatt-hours.¹¹Excludes receipts for milling ore on a toll basis, in order to avoid duplication. The full value of custom concentrates is included in the figures shown for concentrates for 1954.¹²No copper concentrates were produced in this State in 1954 by establishments in other industries.¹³For 1954, represents Vermont for production in the copper ores industry and Vermont, Pennsylvania, Missouri, and Tennessee for production of copper concentrates in all mineral industries. Establishments in North Carolina and Texas in the copper ores industry in 1954 were engaged in exploration and development work only. For 1939, represents North Carolina, Pennsylvania, and Tennessee.¹⁴Includes Montana, Idaho, Colorado, New Mexico, Utah, Nevada, Washington, and California, and for 1954, also Wyoming and Oregon.¹⁵Less than 500 tons.

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Table 5B.--RECOVERABLE COPPER CONTENT OF ORES AND OLD TAILINGS, CONCENTRATES, AND COPPER PRECIPITATES,
BY GEOGRAPHIC DIVISIONS AND STATES: 1954 AND 1939
(Thousands of pounds)

Product	1954 ¹					1939 ²				
	United States, total	East and South	West			United States, total	East and South	West		
			Total	Arizona	Other States			Total	Arizona	Other States
ALL MINERAL INDUSTRIES										
Recoverable copper, total.....	1,670,680	84,269	1,586,411	755,398	831,013	³ 1,434,868	109,264	⁴ 1,325,582	501,770	823,560
Ores and old tailings.....	132,304	...	132,304	119,085	13,219	⁵ 203,378	⁵ 4,488	⁵ 198,887	⁵ 146,634	⁵ 52,234
Direct-smelting and leaching ores ⁶ ..	131,937	...	131,937	118,954	12,983	³ 203,378	4,488	⁴ 198,887	146,634	52,234
Old tailings shipped to smelters....	367	...	367	131	236	(⁵)	(⁵)	(⁵)	(⁵)	(⁵)
Concentrates.....	1,402,238	84,269	1,317,969	600,314	717,655	⁷ 1,132,740	104,776	⁴ 71,027,964	⁷ 271,669	756,062
Copper concentrates.....	1,384,776	82,378	1,302,398	599,231	703,167	(NA)	(NA)	(NA)	(NA)	(NA)
Lead, zinc, gold, and silver concentrates.....	17,462	1,891	15,571	1,083	14,488	(NA)	(NA)	(NA)	(NA)	(NA)
Copper precipitates ⁸	136,138	...	136,138	35,999	100,139	³ 98,750	(³)	98,731	83,467	15,264
COPPER ORES INDUSTRY										
Recoverable copper, total.....	1,612,894	55,889	1,557,005	754,512	802,493	1,384,793	109,264	1,275,529	499,323	776,206
Ores and old tailings.....	125,456	...	125,456	119,065	6,391	⁵ 171,441	⁵ 4,488	⁵ 166,953	⁵ 145,641	⁵ 21,312
Direct-smelting and leaching ores ⁶ ..	125,326	...	125,326	118,935	6,391	171,441	4,488	166,953	145,641	21,312
Old tailings shipped to smelters....	130	...	130	130	...	(⁵)	(⁵)	(⁵)	(⁵)	(⁵)
Concentrates.....	1,351,420	55,889	1,295,531	599,448	696,083	⁷ 1,114,675	104,776	⁷ 1,009,899	⁷ 270,215	739,684
Copper concentrates.....	1,351,139	55,889	1,295,250	599,167	696,083	(NA)	(NA)	(NA)	(NA)	(NA)
Lead, zinc, gold, and silver concentrates.....	281	...	281	281	...	(NA)	(NA)	(NA)	(NA)	(NA)
Copper precipitates ⁸	136,018	...	136,018	35,999	100,019	98,677	...	98,677	83,467	15,210

NA Not available.

¹See table 1, footnote 9.²See table 1, footnote 10.

³Figures for several States combined were published for 1939 for 3,000 pounds of recoverable copper contained in direct-smelting ores produced in the zinc ores industry, and 19,000 pounds in copper precipitates in the pyrites industry. The States involved are, for the zinc ores industry, New York, New Jersey, Tennessee, Virginia, and Colorado, and, for the pyrites industry, Missouri, Virginia, and California. These figures are included in the totals for the United States in the table above but are not shown separately by State.

⁴Figures for Arizona, Utah, and Washington combined were published for 1939 for 19,000 pounds of recoverable copper contained in direct-smelting ores, and 233,000 pounds in concentrates in the zinc ores industry. These figures are included in the totals for the West but are not shown separately by State.

⁵Information on shipments of old tailings to smelters was not obtained separately for 1939.

⁶For 1954, leaching ores provide nearly one-half of the total. (See table 1, footnote 4.) For 1939, represents direct-smelting ores only.

⁷Includes the content of material valued chiefly for its copper content, but originally classified as "other materials" in 1939. The recoverable copper contained in this material represents somewhat more than one percent of the content shown for Arizona.

⁸See table 1, footnote 8.

MINERAL INDUSTRIES - INDUSTRY STATISTICS

Table 6.--GENERAL STATISTICS FOR COPPER ORES ESTABLISHMENTS CLASSIFIED BY EMPLOYMENT SIZE, BY GEOGRAPHIC DIVISIONS AND STATES: 1954

(For explanation of column captions, see INTRODUCTION)

Geographic division, State, and number of employees in establishment	Number of estab- lish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
United States, total.....	210	508,729	334,876	21,544	¹ 6,269	46,676	98,491	¹ 37,574	80,970
0.....	86	273	208	...	...	3	9	1	2,797
1 - 4.....	59	707	458	110	13	203	340	31	447
5 - 9.....	16	984	831	94	15	200	319	77	181
10 - 19.....	8	260	399	96	7	209	398	43	255
20 - 49.....	9	14,250	5,553	363	113	857	1,632	609	774
50 - 99.....	2								
100 - 249.....	7	13,243	9,207	906	151	2,132	3,854	703	2,698
250 - 499.....	6	35,851	19,143	1,854	361	4,075	8,136	1,733	26,927
500 - 999.....	6	59,121	32,687	2,606	1,086	5,850	12,055	5,844	32,365
1,000 - 2,499.....	10	384,040	266,390	15,515	3,378	33,147	71,748	19,187	14,526
2,500 and over.....	1								
East and South (Vermont, Michigan, North Carolina, and Texas).....	12	24,701	15,728	2,288	¹ 1,608	4,953	8,624	¹ 11,599	23,517
0.....	...	...	...	...	...	...	...	...	...
1 - 4.....	3	...	...	1	3	1	2	13	(D)
5 - 19.....	...	...	...	...	...	...	...	...	...
20 - 49.....	3	3,077	1,302	152	17	384	642	67	225
50 - 99.....	1								
100 - 249.....	2	21,624	14,426	2,135	443	4,568	7,980	2,173	{ (D)
250 - 499.....	1								
500 - 999.....	1								
1,000 - 2,499.....	1								
2,500 and over.....	...	...	...	...	...	...	...	...	...
West.....	198	484,028	319,148	19,256	4,661	41,723	89,867	25,975	57,453
0.....	86	273	208	...	...	3	9	1	2,797
1 - 4.....	56	707	458	109	10	202	338	18	(D)
5 - 9.....	16	984	831	94	15	200	319	77	181
10 - 19.....	8	260	399	96	7	209	398	43	255
20 - 49.....	6	11,173	4,251	211	96	473	990	542	549
50 - 99.....	1								
100 - 249.....	5	470,631	313,001	18,746	4,533	40,636	87,813	25,294	(D)
250 - 499.....	5								
500 - 999.....	5								
1,000 - 2,499.....	9								
2,500 and over.....	1	...	...	...	...	...	...	...	...
Arizona.....	89	201,691	165,668	9,420	2,072	21,852	48,212	11,956	43,205
0.....	44	177	143	...	...	1	6	1	79
1 - 4.....	20	361	140	33	2	55	90	4	(D)
5 - 9.....	4	586	438	24	3	54	105	12	(D)
10 - 19.....	5	719	670	92	21	222	385	107	217
20 - 49.....	1	...	...	...	...	...	...	...	...
50 - 99.....	...	...	...	...	...	...	...	...	...
100 - 249.....	4	18,419	12,688	1,060	224	2,635	4,913	1,078	6,980
250 - 499.....	2								
500 - 999.....	3	181,429	151,589	{ 1,220	734	2,895	6,354	4,183	30,037
1,000 - 2,499.....	6								
2,500 and over.....	...	...	...	...	...	...	...	...	...
Other States (Montana, Idaho, Wyoming, Colorado, New Mexico, Utah, Nevada, Washington, Oregon, and California).....	109	282,337	153,480	9,836	2,589	19,871	41,655	14,019	14,248
0.....	42	96	65	...	...	2	3	...	2,718
1 - 4.....	36	346	318	76	8	147	248	14	(D)
5 - 9.....	12	398	393	70	12	146	214	65	(D)
10 - 19.....	3	10,714	3,980	215	82	460	1,003	478	587
20 - 49.....	5								
50 - 99.....	1	270,783	148,724	9,475	2,487	19,116	40,187	13,462	(D)
100 - 249.....	1								
250 - 499.....	3								
500 - 999.....	2								
1,000 - 2,499.....	3	...	...	...	...	...	...	...	...
2,500 and over.....	1	...	...	...	...	...	...	...	...

D Withheld to avoid approximately disclosing figures for individual companies.

¹Includes 1,145 salaried employees at central offices in New York, paid \$9,346,000 in salaries, not classified by employment size.

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Table 7.--MONTHLY EMPLOYMENT IN THE COPPER ORES INDUSTRY, BY GEOGRAPHIC DIVISIONS AND STATES, AND BY TYPE OF OPERATION: 1954

Geographic division, State, and type of operation	Average employ- ment for the year ¹	Number of employees by month											
		January	February	March	April	May	June	July	August	September	October	November	December
United States, total.....	27,813	28,979	28,974	28,562	27,589	27,771	28,095	28,140	28,026	25,256	25,779	27,861	28,570
GEOGRAPHIC DIVISION AND STATE													
East and South (Vermont, Michigan, North Carolina, and Texas).....	3,896	3,786	3,797	3,809	3,835	3,865	3,925	3,916	3,895	4,007	3,950	3,962	3,978
West, total.....	23,917	25,193	25,177	24,753	23,754	23,906	24,170	24,224	24,131	21,249	21,829	23,899	24,592
Arizona.....	11,492	11,630	11,706	11,667	11,612	11,617	11,564	11,468	11,439	11,344	11,267	11,277	11,274
Other States (Montana, Idaho, Wyoming, Colorado, New Mexico, Utah, Nevada, Washington, Oregon, and California).....	12,425	13,563	13,471	13,086	12,142	12,289	12,606	12,756	12,692	9,905	10,562	12,622	13,318
TYPE OF OPERATION													
Producing establishments, total ² ..	25,293	26,592	26,536	26,108	25,103	25,265	25,582	25,597	25,445	22,691	23,218	25,289	25,978
Open-pit mines ³	10,140	10,242	10,293	10,046	9,621	9,777	10,127	10,183	10,086	10,303	10,266	10,220	10,465
Combination open-pit and underground mines ³	4,962	5,757	5,614	5,487	5,361	5,336	5,225	5,221	5,180	2,752	3,464	4,971	5,176
Underground mines ³	7,140	7,271	7,264	7,243	7,226	7,231	7,152	7,040	7,042	7,086	7,010	7,024	7,033
Mills only ⁴	3,051	3,322	3,365	3,332	2,895	2,921	3,078	3,153	3,137	2,550	2,478	3,074	3,304
Nonproducing establishments.....	793	677	728	744	767	787	794	807	845	829	817	828	848

¹Represents the sum of the average employment figures for the year as shown in the separate establishment reports. These are the averages shown in other tables of this report. Because of roundings, the sum of such average figures may differ slightly from the average of the January to December totals shown above.

²Excludes 1,727 employees at central offices, which were not classified by type of operation.

³Both mines only and mines operated with associated mills.

⁴Includes one mill with a nonproducing mine.

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Table 8.—GENERAL STATISTICS FOR PRODUCING COPPER ORES ESTABLISHMENTS CLASSIFIED BY OUTPUT PER MAN-HOUR AND BY TYPE OF OPERATION, FOR THE UNITED STATES: 1954

(For explanation of column captions, see INTRODUCTION)

Output per man-hour (value of shipments, ¹)	Number of estab- lish- ments	Number of mines			Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by produc- tion and develop- ment workers (1,000)	Wages and salaries		New capital expendi- tures (\$1,000)
		Open- pit	Combina- tion open-pit and under ground	Under- ground			Production and develop- ment workers	All other employees		Produc- tion and develop- ment workers (\$1,000)	All other employees (\$1,000)	
United States, total.....	159	32	6	113	508,729	334,001	20,867	24,426	44,896	94,589	23,766	52,533
Mines only, total ⁴	123	24	3	96	104,305	84,002	5,999	901	11,984	25,020	5,235	3,173
Less than \$2.00.....	5	...	...	5	46	17	20	38	{ 33	52	48	...
\$2.00 - \$2.99.....	3	...	...	3	821	619	152			365	564	118
\$3.00 - \$3.99.....	3	...	1	2	25,073	19,223	3,172	435	6,274	12,984	2,723	1,153
\$4.00 - \$4.99.....	2	...	...	2								
\$5.00 - \$5.99.....	1	...	...	1	63,091	56,294	2,078	314	4,202	9,204	1,701	1,233
\$6.00 - \$6.99.....	...	...	...	...				
\$7.00 - \$7.99.....	1	...	1	...	15,274	7,849	577	114	1,110	2,216	645	787
\$8.00 - \$14.99.....	...	...	...	...				
\$15.00 - \$19.99.....	1	1	...	...	...	...	...	...	...	...	...	...
\$20.00 and over.....	...	...	...	...				
Unclassified ⁵	107	23	1	83	15,274	7,849	577	114	1,110	2,216	645	787
Mines with producing mills, total.....	27	8	3	16	257,748	208,791	12,659	2,683	28,312	60,026	14,772	47,326
Less than \$2.00.....	3	...	...	3	459	508	148	{ 3	238	461	{ 10	163
\$2.00 - \$2.99.....	1	...	...	1								
\$3.00 - \$3.99.....	1	...	...	1	5,851	4,443	521	91	1,319	2,349	412	842
\$4.00 - \$4.99.....	3	...	1	2								
\$5.00 - \$5.99.....	1	...	...	1	45,549	38,272	3,319	533	7,306	17,649	3,304	2,579
\$6.00 - \$6.99.....	3	...	...	3								
\$7.00 - \$7.99.....	1	1	...	...	129,735	107,767	4,361	1,221	10,572	22,222	6,775	8,603
\$8.00 - \$9.99.....	1	1	...	...						
\$10.00 - \$14.99.....	3	2	1	...	76,154	57,801	4,310	835	8,877	17,345	4,271	35,139
\$15.00 - \$19.99.....	1	1	...	...						
\$20.00 and over.....	...	...	...	...	146,676	41,208	2,209	842	4,600	9,543	3,759	2,034
Unclassified ⁵	9	3	1	5								
Mills only, total ³	9	...	...	1	146,676	41,208	2,209	842	4,600	9,543	3,759	2,034
Less than \$4.00.....	...	...	...	...	...	...	...	{ ...	...	...	{ ...	...
\$4.00 - \$4.99.....	1	...	...	...					
\$5.00 - \$5.99.....	1	...	...	...	2,983	994	138	{ ...	356	596	{ 61	55
\$6.00 - \$6.99.....	...	...	...	...				
\$7.00 - \$7.99.....	1	...	...	...	143,693	40,214	2,071	826	4,244	8,947	3,698	1,979
\$8.00 - \$9.99.....	1	...	...	...					
\$10.00 - \$14.99.....	...	...	...	...				
\$15.00 - \$19.99.....	1	...	...	...					
\$20.00 and over.....	4	...	...	31								

¹Value of shipments, exclusive of sales of electric energy generated.²Statistics for employment and salaries exclude figures for employees of central offices, which were not classified by output per man-hour.³Represents a nonproducing mine operated in conjunction with a producing mill. See table 4, footnote 3.⁴See table 4, footnote 1.⁵Principally reports indicating that a substantial proportion of the production was performed by contractors, for whom employee man-hours are not included above and other reports specifying that a significant portion of the man-hours reported referred to exploration and development activity. This group also includes a large number of small establishments, reporting that proprietors or partners regularly worked at the establishment; man-hours for these proprietors are not included above. Significant ratios of value of shipments per man-hour could not be computed for these groups.

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Table 9.--GENERAL STATISTICS FOR COPPER ORES ESTABLISHMENTS CLASSIFIED BY RATIO OF WAGES AND SALARIES TO VALUE ADDED IN MINING, FOR THE UNITED STATES: 1954

(For explanation of column captions, see INTRODUCTION)

Ratio of wages and salaries to value added in mining	Number of establishments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
United States, total.....	210	508,729	334,876	21,544	16,269	46,676	98,491	137,574	80,970
Less than 0.30.....	23	321,132	219,896	8,810	1,650	19,482	41,379	8,694	11,719
0.30 - 0.39.....	8	48,883	26,139	1,590	340	3,296	6,467	1,803	1,664
0.40 - 0.49.....	7	5,555	8,124	229	545	531	1,071	2,834	5,023
0.50 - 0.59.....	17	57,600	47,618	4,462	618	9,776	22,175	3,750	2,891
0.60 - 0.69.....	6	9,348	4,220	527	68	1,161	2,321	382	621
0.70 - 0.79.....	6	2,516	2,003	272	67	692	1,248	244	739
0.80 - 0.89.....	7	37,785	9,133	1,334	554	2,757	4,795	2,631	2,691
0.90 - 0.99.....	4	23,442	16,689	3,052	439	5,969	12,775	2,791	5,013
1.00 and over.....	12	2,200	847	1,268	261	3,012	6,260	1,391	47,878
Unclassified ²	80	268	207	...	...	...	...	...	2,731

¹Includes 1,727 employees at central offices, paid \$13,054,000 in salaries, which were not classified by ratio of wages and salaries to value added.²Establishments reporting less than \$500 for wages and salaries.

Table 10.--HORSEPOWER OF POWER EQUIPMENT USED IN THE COPPER ORES INDUSTRY, BY GEOGRAPHIC DIVISIONS AND BY TYPE OF OPERATION: 1954

(For explanation of line captions, see INTRODUCTION)

Item	United States, total	By geographic divisions		By type of operation					
		East and South	West	Producing establishments					Non-producing establishments
				Total	Open-pit mines ¹	Combination open-pit and underground mines ¹	Underground mines ¹	Mills only ²	
Aggregate horsepower per production worker.....	72	86	70	73	73	67	63	107	46
Aggregate horsepower (prime movers and electric motors driven by purchased energy), total.....	1,545,632	197,246	1,348,386	1,514,243	612,678	282,554	383,643	235,368	31,389
Loading equipment.....	66,948	6,837	60,111	65,568	40,222	10,209	13,179	1,958	1,380
Transportation equipment:									
Highway type.....	124,994	9,257	115,737	118,011	75,729	11,018	28,288	2,976	6,983
Other.....	334,350	15,763	318,587	331,683	207,129	71,479	40,122	12,953	2,667
All other equipment.....	1,019,340	165,389	853,951	998,981	289,598	189,848	302,054	217,481	20,359
Prime movers (horsepower), total.....	1,031,312	152,664	878,648	1,010,011	504,849	115,061	238,802	151,299	21,301
Loading equipment.....	37,580	4,050	33,530	36,264	20,150	5,600	9,438	1,076	1,316
Transportation equipment:									
Highway type.....	124,994	9,257	115,737	118,011	75,729	11,018	28,288	2,976	6,983
Other.....	246,714	12,136	234,578	245,884	193,539	29,191	13,603	9,551	830
All other equipment.....	622,024	127,221	494,803	609,852	215,431	69,252	187,473	137,696	12,172
Driving generators.....	590,953	117,140	473,813	581,272	194,936	70,640	175,296	140,400	9,681
Not driving generators.....	440,359	35,524	404,835	428,739	309,913	44,421	63,506	10,899	11,620
Electric motors (horsepower), total.....	914,297	76,974	837,323	901,634	283,317	195,250	217,336	205,731	12,663
Loading equipment.....	41,959	4,054	37,905	41,879	27,276	6,518	7,203	882	80
Transportation equipment.....	132,355	3,995	128,360	130,180	30,700	42,288	31,838	25,354	2,175
All other equipment.....	739,983	68,925	671,058	729,575	225,341	146,444	178,295	179,495	10,408
Driven by purchased energy.....	514,320	44,582	469,738	504,232	107,829	167,493	144,841	84,069	10,088
Driven by energy generated at establishments reported.....	399,977	32,392	367,585	397,402	175,488	27,757	72,495	121,662	2,575

¹Both mines only and mines operated with associated mills.²Includes one mill with a nonproducing mine.

Table 11.--NUMBER OF POWER LOADING MACHINES IN THE COPPER ORES INDUSTRY IN THE UNITED STATES, 1954 AND 1939, AND BY GEOGRAPHIC DIVISION¹, 1954

Type of loading equipment	United States		East and South	West
	1954	1939		
Surface loading equipment, total.....	1387	111	28	359
By kind of power used				
Steam.....	18	5	8	10
Electric and Diesel-electric.....	204	79	11	193
Diesel.....	67	27	6	61
Gasoline and other.....	98		3	95
Power shovels, total.....	164	81	7	157
By kind of power used ²				
Electric and Diesel-electric.....	116	68	...	116
Diesel.....	30	13	6	24
Gasoline and other.....	18		1	17
By dipper or bucket capacity (cubic yards)				
Less than 3.....	51	21	7	44
3-5 inclusive.....	72	59	...	72
6-12 inclusive.....	41	21	...	41
Dragline excavators, total.....	310	33	...	10
By kind of power used				
Steam.....	...	41	...	...
Electric and Diesel-electric.....	...	42	...	...
Diesel.....	5	...	...	5
Gasoline and other.....	5	42	...	5
Scraper loaders, total.....	25	3	...	25
By kind of power used				
Steam.....	1	...	...	1
Electric and Diesel-electric.....	1	3	...	1
Diesel.....	6	...	...	6
Gasoline and other.....	17	...	...	17
By rated horsepower				
10-25 inclusive.....	4	2	...	4
26-100 inclusive.....	14	1	...	14
More than 100.....	7	...	...	7
Clamshell and orange peel loaders (electric and Diesel-electric).....	6	42	...	6
Cranes and hoists, total.....	181	22	20	161
By kind of power used				
Steam.....	17	4	8	9
Electric and Diesel-electric.....	80	6	10	70
Diesel.....	26	...	...	26
Gasoline and other.....	58	12	2	56
Dredges (electric).....	1	...	1	...
Underground loading equipment, total.....	1,204	567	213	991
By kind of power used				
Compressed air.....	890	358	138	752
Electric and Diesel-electric.....	283	209	75	208
Gasoline and other.....	31	...	...	31
Shovel loaders requiring a minimum working height of 8 feet or less, total...	273	78	52	221
By kind of power used				
Compressed air.....	259	78	38	221
Electric and Diesel-electric.....	14	...	14	...
Shovel loaders requiring a minimum working height of more than 8 feet (compressed air).....	42	69	...	42
Scraper loaders (including slushers), total.....	889	420	161	728
By kind of power used				
Compressed air.....	589	211	100	489
Electric and Diesel-electric.....	269	209	61	208
Gasoline and other.....	31	...	...	31
By rated horsepower				
Less than 10.....	378	274	12	366
10-25 inclusive.....	453	138	143	310
26-100 inclusive.....	57	8	6	51
More than 100.....	1	...	...	1

¹In addition, 47 bulldozers were reported.²Classified as "more than five."³All with bucket capacities of less than three cubic yards.⁴Clamshell loaders, classified by kind of power used, are included with dragline excavators⁵Compressed air.

COPPER ORES

10D-19

Table 12.--MATERIALS, SUPPLIES, FUELS, AND ELECTRIC ENERGY USED IN THE COPPER ORES INDUSTRY, BY GEOGRAPHIC DIVISIONS: 1954

(For explanation of line captions, see INTRODUCTION)

Item	Unit of measure for quantity	United States		East and South		West	
		Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
Crude ore and old tailings milled, total ¹	1,000 short tons.	88,390	xxx	4,600	xxx	83,790	xxx
Gross content of metals:							
Copper.....	1,000 pounds.....	1,658,803	xxx	60,548	xxx	1,598,255	xxx
Lead.....	....do.....	26	xxx	...	xxx	26	xxx
Zinc.....	....do.....	13,896	xxx	...	xxx	13,896	xxx
Gold.....	1,000 fine ounces	666.5	xxx	0.2	xxx	666.3	xxx
Silver.....	....do.....	8,069	xxx	(D)	xxx	(D)	xxx
Mined or recovered and milled at same establishment....	1,000 short tons.	52,851	xxx	(D)	xxx	(D)	xxx
Gross content of metals:							
Copper.....	1,000 pounds.....	946,738	xxx	(D)	xxx	(D)	xxx
Lead.....	....do.....	(D)	xxx	...	xxx	(D)	xxx
Zinc.....	....do.....	11,918	xxx	...	xxx	11,918	xxx
Gold.....	1,000 fine ounces	112.8	xxx	0.2	xxx	112.6	xxx
Silver.....	....do.....	2,900	xxx	(D)	xxx	(D)	xxx
Received from other establishments of same company, purchased, or received for milling on a custom basis..	1,000 short tons.	35,539	100,693	(D)	(²)	(D)	(²)
Gross content of metals:							
Copper.....	1,000 pounds.....	712,065	xxx	(D)	xxx	(D)	xxx
Lead.....	....do.....	(D)	xxx	...	xxx	(D)	xxx
Zinc.....	....do.....	1,978	xxx	...	xxx	1,978	xxx
Gold.....	1,000 fine ounces	553.7	xxx	...	xxx	553.7	xxx
Silver.....	....do.....	5,169	xxx	...	xxx	5,169	xxx
Supplies used, total.....		xxx	72,822	xxx	² 11,974	xxx	² 161,541
Explosives.....	1,000 pounds.....	45,774	6,597	3,783	649	41,991	5,946
Steel mill shapes and forms.....	Short tons.....	74,393	11,591	1,922	233	72,471	11,358
All other supplies.....		xxx	54,634	xxx	² 11,092	xxx	² 144,215
Fuels used, total.....	Million kwh equivalent.....	8,440	8,576	1,281	1,539	7,159	7,037
Bituminous coal.....	1,000 short tons.	179	1,450	155	1,254	24	196
Distillate fuel oil ³	1,000 barrels....	293	1,662	47	244	246	1,418
Residual fuel oil.....	....do.....	8	29	...	...	8	29
Natural gas.....	Million cu. ft....	20,559	4,535	...	...	20,559	4,535
Other fuels.....		xxx	900	xxx	41	xxx	859
Electric energy purchased.....	Million kwh.....	815	6,278	36	994	729	5,284
Electric energy generated and used.....	....do.....	1,194	xxx	77	xxx	1,117	xxx

xxx Not applicable.

D Withheld to avoid approximately disclosing figures for individual companies.

¹See table 1, footnote 6.²The cost of crude ore and old tailings received from other establishments for milling is included in the cost of supplies.³Includes 94,000 barrels, at a cost of \$411,000, for establishments reporting combined figures for distillate and residual fuel oil or not specifying the type of fuel oil.

Table 13.--WATER USE IN THE COPPER ORES INDUSTRY, BY GEOGRAPHIC DIVISIONS AND STATES AND BY TYPE OF OPERATION: 1954

(For explanation of column captions, see INTRODUCTION)

Geographic division, State, and type of operation	Number of production and development workers	Value added in mining (\$1,000)	Water intake (except mine water)			Water discharged (except mine water) (Million gallons)	Mine water (Million gallons)		Gross water use, including recircu- lation (Million gallons)	Percent of total water intake (except mine water) by principal source					
			Million gallons production worker ¹	Million gallons per dollar value added	Gallons per dollar value added		Used	Drained and dis- charged		Public surface water systems	Company ground water systems	Combined public water and company ground water systems	Combined company surface and ground water systems		
United States, total.....	21,544	334,876	56,688	2.63	169	48,724	2,424	11,101	82,547	7	29	20	32	(2)	12
GEOGRAPHIC DIVISION AND STATE															
East and South.....	2,288	15,728	15,744	6.89	1,001	13,628	56	1,179	19,243	...	100	...	...	...	...
Michigan.....	2,094	14,126	15,577	7.44	1,103	13,462	...	1,123	19,020	...	100	...	...	...	...
Vermont, North Carolina, and Texas.....	194	1,602	167	0.86	104	166	56	56	223	...	100	...	...	...	...
West.....	19,256	319,148	40,944	2.13	128	35,096	2,368	9,922	63,304	10	1	29	44	(2)	16
Arizona.....	9,420	165,668	13,231	1.41	80	10,232	924	4,329	22,795	26	3	47	...	(2)	24
Nevada.....	1,295	15,712	3,183	2.46	203	3,183	896	2,409	6,864	1	...	99	...	...	...
Montana and Utah.....	6,332	104,681	22,457	3.55	215	21,561	...	2,945	28,924	3	...	1	81	...	15
Idaho, Wyoming, Colorado, New Mexico, Washington, Oregon, and California.....	2,209	33,087	2,073	0.94	63	120	548	239	4,721	(2)	6	94	...	...	...
TYPE OF OPERATION															
Producing establishments, total....	20,867	334,001	56,314	2.70	169	48,366	2,424	9,426	82,173	7	29	20	32	(2)	12
Mines only.....	5,999	84,002	1,080	0.18	13	904	30	6,108	1,158	68	...	32	...	...	...
Open-pit mines.....	2,397	64,683	369	0.15	6	369	8	230	389	11	...	89	...	...	...
Underground mines and combination open-pit and underground mines.....	3,602	19,319	711	0.20	37	535	22	5,878	769	98	...	2	...	...	...
Mines with producing mills.....	12,659	208,791	25,235	1.99	121	18,407	2,394	3,318	41,822	14	42	31	...	(2)	13
Open-pit mines.....	5,975	129,252	10,173	1.70	79	5,883	1,914	897	19,692	34	3	63	...	...	...
Underground mines and combination open-pit and underground mines.....	6,684	79,539	15,062	2.25	189	12,524	480	2,421	22,130	(2)	69	9	...	(2)	22
Mills only ⁴	2,209	41,208	29,999	13.58	728	29,055	...	...	39,193	...	18	11	60	...	11
Nonproducing establishments.....	677	875	374	0.55	427	358	...	1,675	374	(2)	(2)	100	...	...	...

¹For computations of water intake per production worker, including mine water used, see tables 3 and 4.²Less than 0.5 percent.³Includes four mines with nonproducing mills.⁴Includes one mill with a nonproducing mine.

LEAD AND ZINC ORES

10E-1

Lead and Zinc Ores

This report shows 1954 Census of Mineral Industries statistics for establishments classified in Industry 1032, Lead Ores; Industry 1033, Zinc Ores; and Industry 1034, Lead-zinc Ores. Industry 1032 comprises establishments primarily engaged in mining, milling, or otherwise preparing lead ores containing no zinc; Industry 1033 comprises establishments primarily engaged in mining, milling, or otherwise preparing zinc ores containing no lead; and Industry 1034 comprises establishments primarily engaged in mining, milling, or otherwise preparing lead-zinc ores. Establishments primarily engaged in smelting lead and zinc ores and in refining lead or zinc are classified as manufacturing plants. Such establishments are classified, in the case of lead, in Industry 3332, Primary Smelting and Refining of Lead, and in the case of zinc, in Industry 3333, Primary Smelting and Refining of Zinc.

Establishments primarily producing complex ores, for Census purposes, were classified in the lead and zinc ores industries if the estimated value of the recoverable lead or zinc content of materials produced or shipped was greater than for any of the other metals contained. For industrial classification purposes, estimated unit values of metals, f.o.b. mine or mill, were derived by subtracting from their average market prices in 1954 estimated smelting, refining, and transportation costs. These unit values were applied to the recoverable metal content of complex ores and concentrates reported to determine the metal of principal value and thus provide a basis for classifying the establishment. For the unit values used in these computations and for a more complete discussion of this procedure, see the summary report, "Copper, Lead, Zinc, Gold, and Silver Ores."

In 1939, lead and zinc ores establishments were classified in either of two industries, the lead ores industry if lead was the metal of principal value or the zinc ores industry if zinc was the metal of principal value. No separate lead-zinc ores industry was provided. The revised classification for 1954 proved unsatisfactory since nearly 90 percent of the tonnage of ores mined in the three industries was accounted for by the lead-zinc ores industry. This classification will probably not be used in the future. However, statistics are here presented at the United States total level for each of the three lead and zinc ores industries. All other statistics in this report have been grouped in a manner comparable with 1939. This was accomplished by combining reports for establishments in the lead ores industry with those in the lead-zinc ores industry whose products were valued chiefly for the lead contained and by similarly combining reports for establishments in the zinc ores industry with those in the lead-zinc ores industry whose products were valued chiefly for the zinc contained.

Changes in establishment classification since 1939 have resulted from changes in the metal content of ores mined or milled at specific establishments and from differences, for the various metals, in the increase in unit values since 1939. For example, the increase in the value of lead and zinc since 1939 has been proportionately much greater than for silver. Of course, there has been no change in the unit value of gold over this period. Consequently, some establishments classified in the lead and zinc ores industries in 1954 would have been classified as silver or gold mines in 1939. To a somewhat greater extent than in 1939, separate reports were filed in 1954 for mines and for associated mills. This factor affects the comparability of some of the statistics for the two years, such as the quantity and value of milling ores shipped and the classification of operations by employment size.

The total value of shipments of the lead and zinc ores industries in 1954 amounted to \$176 million. More than one-fifth of this total, or close to \$36 million, represented the value of milling ores shipped to mills for concentration. Net shipments from these industries totaled \$140 million and consisted primarily of lead concentrates (\$75 million) and zinc concentrates (\$55 million). Shipments of ores for direct processing at smelters, without prior milling, were valued at nearly \$7 million. The value of secondary products and the amount received for services exceeded \$3 million.

Ores and concentrates produced at all mineral establishments contained approximately 644 million pounds of recoverable lead and 911 million pounds of recoverable zinc. Establishments in the lead and zinc ores industries accounted for 98 percent of the recoverable lead total and 97 percent of the recoverable zinc. The balance of the recoverable lead and zinc was contained principally in the products of establishments classified in the silver ores and fluorspar industries and, in addition for zinc, in the copper ores industry and the pyrites subindustry. Establishments producing ores valued chiefly for lead accounted for 80 percent of the total recoverable lead in the United States and establishments producing ores valued chiefly for zinc accounted for 77 percent of the total recoverable zinc.

The report form used for the lead and zinc ores industries by the Bureau of the Census for the 1954 Census of Mineral Industries also provided information required by the Bureau of Mines for its annual statistics on lead and zinc ores. The Bureau of Mines statistics are, in general, comparable with those shown in this report. However, some differences occur in the statistics on products, arising principally from the difference in methods followed and objectives sought by these two bureaus in compiling and presenting the statistics. The reasons for such differences, to the extent that they pertain to statistics for the lead and zinc ores industries, are summarized below:

1. The statistics shown in this report on ores mined, milled, or shipped by lead and zinc ores establishments cover all ores and thus may include small quantities of copper, gold, and silver ores, as well as lead and zinc ores. Conversely, lead and zinc ores mined at establishments classified in other industries are excluded. Statistics on lead and zinc ores published by the Bureau of Mines cover such ores from all domestic mines regardless of industry classification. Complex ores are classified by the Bureau of Mines, in large measure, on the basis of the assay content of the ores. The Bureau of the Census, on the other hand, bases such classification on the value of the metals contained.

2. The Bureau of Mines excluded from its 1954 statistics shipments made in January of that year if such shipments had been included in their 1953 statistics. Likewise, any shipments actually made during 1953, but not included in the Bureau of Mines figures for that year, have been added to the 1954 statistics. This is partly explained by the use by the Bureau of Mines in some instances of receipts at smelters rather than shipments from the mine. Statistics shown in this report pertain, on the other hand, to mine or mill operations actually performed during 1954.

3. The Bureau of Mines has included in its statistics on recoverable lead and zinc, the lead and zinc recovered at smelters from old slag and smelter cleanings if this material was not included in the statistics for earlier years. Only the lead and zinc recoverable from ores mined or milled in 1954 are included in the Census statistics.

4. The Bureau of the Census has included in its statistics on concentrates figures covering a small quantity of imported ores concentrated at mills in the United States. Statistics on mine production published by the Bureau of Mines refer only to domestic ores.

5. Figures for establishments with value of shipments of less than \$500 are excluded from this report unless the expenses for development and maintenance work amounted to \$500 or more. The Bureau of Mines includes production of all domestic mines, regardless of the size of the operation.

6. Differences in the statistics by State also arise from the fact that concentrates produced in one State from ores mined in another are assigned by the Bureau of Mines to the State in which the mine is located, whereas the Bureau of the Census includes such concentrates in the statistics for the State in which the mill is located.

MINERAL INDUSTRIES--INDUSTRY STATISTICS

Table 1.--COMPARATIVE STATISTICS FOR THE LEAD AND ZINC ORES INDUSTRIES IN THE

(For explanation of line captions and for statement on the minimum

	Item	1954					
		Lead and zinc ores industries, total	Lead ores industry ⁶	Zinc ores industry ⁶	Lead-zinc ores industry ⁶		
					Total	Valued chiefly for--	
						Lead	Zinc
1	Number of operating companies.....	411	112	16	293	196	107
2	Number of establishments.....	520	113	28	379	230	149
3	Number of mines.....	491	110	23	358	222	136
4	Number of mills.....	141	18	15	108	60	48
5	Crude ore mined.....1,000 short tons...	18,526	837	1,556	16,133	8,861	7,272
6	Direct-smelting ores shipped ⁷.....do....	451	(8)	(8)	8249	8165	8286
7	Crude ore and old tailings milled.....do....	919,941	817	1,528	17,596	9,813	7,783
8	Lead, zinc, copper, gold, and silver concentrates produced.....do....	1,362	25	191	1,146	544	602
	Recoverable content of direct-smelting ores and old tailings and of concentrates: ¹⁰						
9	Lead.....1,000 pounds....	631,144	36,673	...	594,471	477,220	117,251
10	Zinc.....do....	881,153	...	155,802	725,351	181,470	543,881
11	Value of shipments, total ¹¹.....\$1,000...	175,947	4,581	11,661	159,705	90,293	69,412
12	Milling ores.....do....	35,815	16	1,199	34,600	17,657	16,943
13	Net shipments, total ¹¹.....do....	140,132	4,565	10,462	125,105	72,636	52,469
14	Direct-smelting ores ⁷.....do....	6,773	4,562	10,137	{ 4,127 119,775 1,203 }	71,887	52,015
15	Lead, zinc, copper, gold and silver concentrates ¹¹.....do....	131,828		...			
16	Other products and services.....do....	1,531		325			
17	Value added in mining.....do....	107,409	3,415	7,733	96,261	59,298	36,963
18	Number of persons engaged, total.....	17,016	702	1,934	14,380	8,336	6,044
19	Production and development workers.....	13,592	475	1,308	11,809	6,681	5,128
20	All other employees.....	2,974	103	614	2,257	1,461	796
21	Proprietors and firm members.....	450	124	12	314	194	120
22	Performing manual labor.....	343	102	7	234	155	79
23	Man-hours worked by production and development workers, total..1,000...	27,554	903	2,383	24,268	13,751	10,517
24	At mines, total.....do....	22,973	666	1,605	20,702	12,124	8,578
25	Underground.....do....	18,357	526	1,268	16,563	9,747	6,816
26	Open-pit.....do....	139	35	...	104	66	38
27	Surface (including mine shops and yards).....do....	4,477	105	337	4,035	2,311	1,724
28	At mills.....do....	4,581	237	778	3,566	1,627	1,939
29	Man-hours spent on development and exploration work (included above).....do....	1,498	127	34	1,337	827	510
	Recoverable content per man-hour:						
30	Lead.....Pounds....	23	41	...	24	35	11
31	Zinc.....do....	32	...	65	30	13	52
32	Principal expenses designated below, total.....\$1,000...	145,479	3,498	13,385	128,596	69,947	58,649
33	Wages of production and development workers.....do....	53,676	1,726	4,406	47,544	27,823	19,721
34	Salaries of all other employees.....do....	17,687	489	3,877	13,321	8,964	4,357
35	Crude ore and old tailings received for milling.....do....	35,116	1	1,203	33,912	14,196	19,716
36	Supplies.....do....	24,673	628	1,855	22,190	12,162	10,028
37	Fuel.....do....	1,409	55	274	1,080	545	535
38	Purchased electric energy.....do....	6,838	267	438	6,133	3,760	2,373
39	Contract work.....do....	6,080	332	1,332	4,416	2,497	1,919
40	Purchased machinery installed.....do....	5,942	458	1,165	4,319	2,420	1,899
41	Capital expenditures, total.....do....	11,520	575	2,339	8,606	4,585	4,021
42	Development and exploration of mineral property.....do....	6,509	336	932	5,241	2,893	2,348
43	Mill construction.....do....	1,140	123	762	{ 617 552 }	606	563
44	Other construction.....do....	914		...			
45	New machinery and equipment.....do....	2,509		614	1,812	842	970
46	Used plant and equipment.....do....	448	33	31	384	244	140
47	Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	749,617	29,117	64,423	656,077	394,087	261,990
48	Per production worker.....	55	61	49	56	59	51
49	Prime movers.....	169,162	14,256	28,916	125,990	79,953	46,037
50	Electric motors driven by purchased energy.....	580,455	14,861	35,507	530,087	314,134	215,953

See footnotes at end of table.

LEAD AND ZINC ORES

10E-5

UNITED STATES: 1954, 1939, 1929, 1919, 1909, 1902, 1889, 1880, 1870, AND 1860

size of establishments included for each year, see INTRODUCTION)

1939			1929 ¹			1919 ¹	1909 ^{2 3}	1902 ³	1889 ⁴	1880 ^{2 5}	1870 ²	1860 ²	
Lead and zinc ores industries, total	Lead ores industry ⁶	Zinc ores industry ⁶	Lead and zinc ores industries, total	Lead ores industry ⁶	Zinc ores industry ⁶	Lead and zinc ores industries							
208	72	143	(NA)	(NA)	(NA)	(NA)	1,040	582	(NA)	(NA)	(NA)	(NA)	1
(NA)	(NA)	(NA)	303	155	148	432	1,040	(NA)	(NA)	(NA)	127	43	2
260	86	174	375	171	204	473	1,213	584	(NA)	206	(NA)	(NA)	3
124	31	93	188	67	121	262	(NA)	541	(NA)	(NA)	(NA)	(NA)	4
16,318	6,979	9,339	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	5
203	143	60	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	6
24,023	7,098	16,925	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	7
1,961	675	1,286	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	8
736,959	603,448	133,511	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	9
1,084,560	134,268	950,292	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	10
72,648	34,517	38,131	(NA)	(NA)	(NA)	75,579	31,363	(NA)	(NA)	(NA)	(NA)	(NA)	11
9,997	3,050	6,947	(NA)	(NA)	(NA)	406	1,947	(NA)	(NA)	(NA)	(NA)	(NA)	12
62,651	31,467	31,184	112,428	67,562	44,866	75,173	29,416	14,600	4,804	3,837	1,525	410	13
2,544	1,651	893	110,920	66,720	44,200	74,889	29,416	14,600	4,804	3,837	1,525	410	14
59,280	29,531	29,749											
827	285	542											
		1,508	842	666	284			(NA)	(NA)	(NA)	(NA)	(NA)	16
47,310	24,277	23,033	84,793	51,738	33,055	53,623	21,855	11,880	4,361	3,505	1,446	179	17
17,814	8,086	9,728	27,803	15,004	12,799	24,030	19,914	128,886	3,245	7,483	1,714	249	18
15,731	7,041	8,690	25,907	14,007	11,900	21,884	16,962	7,952	3,122	7,063	1,714	249	19
1,994	1,011	983	131,818	13,944	13,874	1,734	882	934	123	420			
89	34	55	78	53	25	412	2,070	(NA)	(NA)	(NA)	(NA)	(NA)	21
48	22	26	(NA)	(NA)	(NA)	186	1,199	(NA)	(NA)	(NA)	(NA)	(NA)	22
32,481	14,194	18,287	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	23
1424,720	1411,912	1412,808	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	24
1420,869	149,616	1411,253	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	25
14112	...	14112	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	26
143,567	142,201	141,366	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	27
146,649	141,624	145,025	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	28
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	29
23	43	7	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	30
33	9	52	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	31
1540,678	1520,031	1520,647	1571,879	1541,287	1530,592	56,499	21,184	7,935	151,684	152,972	15680	15292	32
20,253	9,979	10,274	39,191	22,917	16,274	30,708	10,564	4,373	1,159		601	61	33
5,084	2,862	2,222	135,053	132,546	132,507	3,835	1,112	842	82	2,640		34	34
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	406	1,947	73	(NA)	(NA)	(NA)	(NA)	35
10,580	4,916	5,664	18,344	10,378	7,966	15,312	4,875						36
848	271	577	1,536	681	855	2,783	2,425	2,530	408	332	79	231	37
3,550	1,854	1,696	6,102	3,733	2,369	2,592							
363	149	214	1,653	1,032	621	863	261	117	35	...	...	...	38
(NA)	(NA)	(NA)	3,752	1,904	1,848	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	40
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	41
(NA)	(NA)	(NA)	8,172	5,666	2,506	4,269	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	42
390	156	234	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	43
778	335	443	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	44
339	152	187	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	45
352,748	194,043	158,705	357,737	194,380	163,357	229,541	114,045	41,901	161,133	6,739	984	(NA)	47
22	28	18	14	14	14	10	7	175	(16)	1	1	(NA)	48
79,807	20,625	59,182	94,063	38,234	55,829	117,527	110,577	41,702	(NA)	(NA)	(NA)	(NA)	49
272,941	173,418	99,523	263,674	156,146	107,528	112,014	3,468	199	(NA)	(NA)	(NA)	(NA)	50

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 1.—COMPARATIVE STATISTICS FOR THE LEAD AND ZINC ORES INDUSTRIES IN THE

(For explanation of line captions and for statement on the minimum

	Item	1954					
		Lead and zinc ores industries, total	Lead ores industry ⁶	Zinc ores industry ⁶	Lead-zinc ores industry ⁶		
					Total	Valued chiefly for--	
						Lead	Zinc
1	Horsepower rating of electric motors driven by energy generated at the establishment.....	30,943	375	6,160	24,408	22,689	1,719
2	Energy used.....million kwh equivalent...	1,641	41	263	1,337	708	629
3	Coal.....1,000 short tons...	50	...	27	23	13	10
4	Fuel oil.....1,000 barrels...	83	5	7	71	30	41
5	Natural gas.....million cu. ft...	922	11	...	911	262	649
6	Electric energy purchased.....million kwh...	759	23	46	690	433	257
7	Electric energy generated and used.....do....	35	...	5	30	27	3
8	Water intake, including mine water used.....million gallons...	22,149	247	1,492	20,410	10,768	9,642
9	Per production worker.....do....	1.63	0.52	1.14	1.73	1.61	1.88

NA Not available.

¹Excludes nonproducing operations. For 1929 and 1919, statistics for nonproducing operations are available only for the copper, lead, zinc, gold, and silver ores industries as a group. For these years, employment and principal expenses of nonproducing operations for this group of industries were about five percent of the comparable figures for producing operations. Figures for nonproducing operations in the lead and zinc ores industries have been included in the figures shown for 1939. In addition, there were in 1939 nine nonproducing establishments, with an employment of 46 and principal expenses of \$92,000 classified in the copper, lead, zinc, gold, and silver ores group of industries but not identified by individual industry. Statistics for 1909 and 1902 include nonproducing operations, but it is not clear whether data for nonproducing operations in 1889 and earlier years were included in the statistics shown for those years.

²Includes some smelting and refining operations. For 1909, production workers at smelters represented approximately three percent of the total shown for production and development workers.

³All mines principally producing argentiferous lead and zinc ores were included with gold and silver ores operations and are excluded from the figures shown.

⁴Statistics represent Arkansas, Illinois, Iowa, Kansas, Missouri, New Jersey, New Mexico, Pennsylvania, Tennessee, Virginia, and Wisconsin. Except for value of products, figures exclude statistics for lead mining in Arkansas, Illinois, Tennessee, and Virginia and for zinc mining in Arkansas, Iowa, Missouri, and New Mexico; value of products included for lead mining in designated States amounted to \$15,920 and for zinc mining, \$2,033,427. Employment statistics exclude lead and zinc operations in Kansas. The cost of supplies excludes operations in Wisconsin and the cost of contract work excludes operations in New Jersey, Pennsylvania, Tennessee, and Virginia. The horsepower figure represents zinc mines in New Jersey, Pennsylvania, Tennessee, and Virginia only.

⁵Represents statistics for mines east of the 100th meridian only.

⁶The basis for classifying establishments by industry was changed between 1939 and 1954. The total of the 1954 figures for the "Lead ores" industry plus the figures for those establishments in the "Lead-zinc ores" industry whose products were valued chiefly for the lead contained are comparable with the statistics for the "Lead ores" industry for prior years. Similarly, the combination for 1954 of the "Zinc ores" industry figures and the figures for establishments in the "Lead-zinc ores" industry whose products were valued chiefly for the zinc contained are comparable with the statistics for the "Zinc ores" industry for prior years. Separate 1954 figures for the "Lead ores" and "Zinc ores" industries are available in this table only. In subsequent tables they have been combined with the appropriate portions of the "Lead-zinc ores" industry.

⁷Figures for 1954 include old tailings shipped to smelters and other shipments of ores and old tailings, such as to ore buyers, which together represent approximately 25 percent of the combined tonnage shown above and about five percent of the combined value. Figures for 1939 represent production of direct-smelting ores only.

⁸The figure for the "Lead ores" industry, and for the "Zinc ores" industry, has been added to the appropriate figure for the "Lead-zinc ores" industry. See footnote 6 above. However, the total for the "Lead-zinc ores" industry excludes this addition.

⁹Tailings represent less than ten percent of the total.

LEAD AND ZINC ORES

10E-7

UNITED STATES: 1954, 1939, 1929, 1919, 1909, 1902, 1889, 1880, 1870, AND 1860--Continued

size of establishments included for each year, see INTRODUCTION)

1939			1929 ¹			1919 ¹	1909 ^{2 3}	1902 ³	1889 ⁴	1880 ^{2 5}	1870 ²	1860 ²	
Lead and zinc ores industries, total	Lead ores industry ⁶	Zinc ores industry ⁶	Lead and zinc ores industries, total	Lead ores industry ⁶	Zinc ores industry ⁶	Lead and zinc ores industries							
24,731	2,630	22,101	33,628	16,422	17,206	22,884	12,108	1,475	(NA)	(NA)	(NA)	(NA)	1
1,556	545	1,011	2,964	1,627	1,337	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	2
90	28	62	250	136	114	541	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	3
103	26	77	71	23	48	73	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	4
720	126	594	916	132	784	1,390	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	5
452	246	206	645	448	197	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	6
49	5	44	106	51	55	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	7
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	8
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	9

¹⁰Figures for 1954 represent the content of direct-smelting ores and old tailings shipped and of concentrates produced. Only the recoverable content of concentrates produced is available for 1954. Inclusion of the content of concentrates shipped would have resulted in approximately two million pounds more of recoverable lead and 12 million pounds less of zinc. Figures for 1939 represent production and have been revised to include the recoverable content of concentrates produced from purchased and custom milling ores, rather than the recoverable content of such ores shipped during the year.

¹¹The total value of shipments contains duplication since it includes the value of milling ores shipped as well as the value of concentrates produced from such ores. The value of net shipments excludes this duplication. Figures for "net value" represent production for 1939 and earlier years. The value of concentrates includes the value of copper precipitates and gold bullion, if any. The value of concentrates shown for 1939 has been revised, for approximate comparability with 1954, by inclusion of the value of milling ores shipped, the value added by milling purchased ores, and receipts for custom milling. It is recognized that, to the extent that any milling ores were shipped to establishments in any other industries, or were received from such establishments, this adjustment is subject to error. This adjustment, which has been made in the statistics by State in later tables, would similarly be affected by interstate shipments of milling ores. Statistics for 1902 and earlier years exclude the value of secondary products and services. The figure for 1902 includes an estimated value of \$1,966,000 representing production of small mines for which no reports were received.

¹²Figures for average employment were reduced to a 300-day basis for establishments which operated for a shorter period.

¹³Excludes employees at central offices maintained independently of mine offices. Statistics for these workers are available only for the copper, lead, zinc, gold, and silver ores industries as a group and not separately by industry. There were a total of 301 such employees paid \$1,598,000 in salaries for this group of industries.

¹⁴Excludes man-hours worked on inactive days. Figures for man-hours on inactive days, amounting to approximately 658,000 for the lead ores industry and 454,000 for the zinc ores industry, are not available by department. Detail for man-hours at mines is not available for nonproducing operations. Such man-hours, amounting to about 95,000 for the lead ores industry and 77,000 for the zinc ores industry, have been included in the "At mines" total but have been excluded from the detail by mine department.

¹⁵Excludes the cost of crude ore and old tailings received from other establishments and, for 1880 and earlier years, the cost of contract work.

¹⁶The horsepower total includes only the horsepower at zinc mines in New Jersey, Pennsylvania, Tennessee, and Virginia. For this reason, the ratio of horsepower to production workers has not been computed.

¹⁷See footnote 12.

Table 2.—COMPARATIVE STATISTICS FOR THE LEAD AND ZINC ORES INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954, 1939, 1929, AND 1919
(For explanation of column captions, see INTRODUCTION. Includes nonproducing operations for 1939, 1929, and 1919, except for 1939 United States totals)¹

Geographic division, State, and year	Number of mines	Value of ship- ments ² (\$1,000)	Number of employees		Designated principal expenses (\$1,000)						Aggregate horse- power rating of power equipment
			Production and de- velopment workers	All other employees	Wages of production and de- velopment workers	Salaries of all other employees	Supplies and crude ore and old tailings received for milling	Fuel	Purchased electric energy	Contract work	
United States, total:											
1954.....	491	175,947	13,592	2,974	53,676	17,687	59,789	1,409	6,838	6,080	749,617
1939.....	260	72,648	15,731	1,994	20,253	5,084	² 10,580	848	3,550	363	352,748
1929.....	375	³ 112,428	25,907	⁴ 1,818	39,191	⁴ 5,053	² 18,344	1,536	6,102	1,653	357,737
1919.....	473	75,579	21,884	1,734	30,708	3,835	15,718	2,783	2,592	863	229,541
Valued chiefly for lead: ⁵											
1954.....	332	94,874	7,156	1,564	29,549	9,453	26,987	600	4,027	2,829	423,204
1939.....	86	34,517	7,041	1,011	9,979	2,862	² 4,916	271	1,854	149	194,043
1929.....	171	³ 67,562	14,007	⁴ 944	22,917	⁴ 2,546	² 10,378	681	3,733	1,032	194,380
Valued chiefly for zinc: ⁶											
1954.....	159	81,073	6,436	1,410	24,127	8,234	32,802	809	2,811	3,251	326,413
1939.....	174	38,131	8,690	983	10,274	2,222	² 5,664	577	1,696	214	158,705
1929.....	204	³ 44,866	11,900	⁴ 874	16,274	⁴ 2,507	² 7,966	855	2,369	621	163,357
East and South, total:											
1954.....	149	74,182	6,448	⁷ 1,608	24,178	⁷ 9,817	20,353	708	3,885	3,583	402,726
1939.....	154	42,134	9,285	1,212	11,063	3,003	² 6,412	576	2,224	206	239,783
1919.....	308	50,237	15,265	1,146	19,707	2,262	10,174	2,372	1,651	506	162,606
Valued chiefly for lead: ⁵											
1954.....	38	32,632	2,905	687	11,456	4,281	4,424	170	2,096	1,232	178,171
1939.....	14	12,166	2,354	472	3,158	1,350	² 1,925	82	946	36	114,961
Valued chiefly for zinc: ⁶											
1954.....	111	41,550	3,543	921	12,722	5,536	15,929	538	1,789	2,351	224,555
1939.....	140	29,968	6,931	740	7,905	1,653	² 4,487	494	1,278	170	124,822
Missouri, total:											
1954.....	9	30,946	2,766	685	10,950	3,801	4,103	164	2,041	1,212	172,710
1939.....	28	13,085	2,637	403	3,393	1,004	² 2,072	100	980	37	118,428
1929.....	29	³ 23,593	4,039	⁴ 407	6,233	⁴ 1,013	² 2,696	326	1,742	55	84,888
1919.....	96	15,879	4,793	343	5,956	680	2,568	1,107	98	66	57,088
Valued chiefly for lead: ⁵											
1954.....	6	30,563	2,700	573	10,746	2,985	⁸ 5,189	154	2,004	(⁸)	170,222
1939.....	9	11,874	2,285	358	3,091	901	² 1,883	80	946	36	114,796
1929.....	15	³ 22,955	3,773	⁴ 394	5,910	⁴ 984	² 2,574	307	1,679	47	80,432
Valued chiefly for zinc: ⁶											
1954.....	3	383	66	112	204	816	⁸ 126	10	37	(⁸)	2,488
1939.....	19	1,211	352	45	302	103	² 189	20	34	1	3,632
1929.....	14	³ 638	266	⁴ 13	323	⁴ 29	² 122	19	63	8	4,456
Kansas, total:											
1954.....	26	3,267	342	32	1,321	154	656	35	209	24	17,388
1939.....	26	5,096	1,318	68	1,489	162	² 766	87	221	39	18,228
1929.....	52	³ 11,035	2,710	⁴ 148	3,490	⁴ 442	² 1,946	136	708	138	37,399
1919.....	30	4,873	1,141	83	1,760	181	988	261	108	68	11,496
Valued chiefly for lead: ⁵											
1954.....	6	524	52	...	185	3	⁸ 115	3	19	(⁸)	1,742
1929.....	7	³ 1,123	282	⁴ 13	350	⁴ 31	² 260	28	41	18	3,559
Valued chiefly for zinc: ⁶											
1954.....	20	2,743	290	32	1,136	151	⁸ 565	32	190	(⁸)	15,646
1939.....	26	5,096	1,318	68	1,489	162	² 766	87	221	39	18,228
1929.....	45	³ 9,912	2,428	⁴ 135	3,140	⁴ 411	² 1,686	108	667	120	33,840
Oklahoma:											
1954.....	67	15,129	984	30	3,794	130	8,936	141	539	37	112,947
1939.....	86	14,741	2,740	314	2,963	539	² 2,154	195	522	124	48,853
1929.....	93	³ 18,027	4,507	⁴ 270	6,037	⁴ 876	² 3,529	353	905	242	61,839
1919.....	123	18,980	5,253	314	6,908	684	4,218	733	744	228	55,182
Other States: ⁹											
1954.....	47	24,840	2,356	861	8,113	5,732	6,658	368	1,096	2,310	99,681
1939.....	14	9,212	2,590	427	3,218	1,298	² 1,420	194	501	6	54,274
1919.....	59	10,506	4,078	406	5,083	716	2,400	271	701	144	38,840
West, total:											
1954.....	342	101,765	7,144	¹⁰ 1,366	29,498	¹⁰ 7,870	39,436	701	2,953	2,497	346,891
1939.....	92	30,514	6,352	760	9,083	2,046	² 4,124	267	1,308	141	105,303
1919 ¹¹	165	25,342	6,619	588	11,001	1,573	5,544	411	941	357	66,935
Valued chiefly for lead: ⁵											
1954.....	294	62,242	4,251	877	18,093	5,172	22,563	430	1,931	1,597	245,033
1939.....	62	22,351	4,630	526	6,763	1,498	² 2,972	185	906	102	78,287
Valued chiefly for zinc: ⁶											
1954.....	48	39,523	2,893	489	11,405	2,698	16,873	271	1,022	900	101,858
1939.....	30	8,163	1,722	234	2,320	548	² 1,152	82	402	39	27,016

See footnotes at end of table.

Table 2.—COMPARATIVE STATISTICS FOR THE LEAD AND ZINC ORES INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954, 1939, 1929, AND 1919—Continued

Geographic division, State, and year	Number of mines	Value of ship- ments (\$1,000)	Number of employees		Designated principal expenses (\$1,000)						Aggregate horse- power rating of power equipment
			Production and de- velopment workers	All other employees	Wages of production and de- velopment workers	Salaries of all other employees	Supplies and crude ore and old tailings received for milling	Fuel	Purchased electric energy	Contract work	
West—Continued											
Montana:											
1954.....	45	23,458	1,600	318	6,103	1,723	13,612	139	444	71	45,012
1939.....	7	340	120	11	179	23	² 68	2	13	1	1,597
Idaho, total:											
1954.....	73	24,768	2,200	322	9,757	1,889	6,589	128	792	438	86,529
1939 ¹	24	12,720	2,748	206	4,142	615	² 1,803	69	553	30	50,168
1929.....	39	³ 18,642	3,648	⁴ 191	6,481	⁴ 514	² 2,952	109	769	69	59,579
1919.....	21	9,530	1,820	136	3,252	403	1,559	118	280	157	25,479
Valued chiefly for lead: ⁵											
1954.....	61	19,976	1,668	287	7,413	1,677	5,088	97	579	364	60,707
1939.....	16	9,293	2,335	182	3,525	558	² 1,496	67	498	5	43,940
1929.....	32	³ 17,401	3,189	⁴ 170	5,788	⁴ 472	² 2,531	105	702	65	55,836
Valued chiefly for zinc: ⁶											
1954.....	12	4,792	532	35	2,344	212	1,501	31	213	74	25,822
1939.....	8	3,427	413	²⁴	617	57	² 307	2	55	25	6,228
1929.....	7	³ 1,241	459	⁴ 21	693	⁴ 42	² 421	4	67	4	3,743
Colorado:											
1954.....	67	12,822	1,079	166	4,273	779	2,832	144	488	120	37,712
1939.....	10	197	109	7	142	13	² 70	1	25	7	2,425
1929.....	30	³ 3,853	971	⁴ 68	1,815	⁴ 170	² 709	30	267	5	10,920
1919.....	37	2,622	936	126	1,436	320	834	35	192	32	12,384
Other States: ¹²											
1954.....	157	40,717	2,265	560	9,365	3,479	16,403	290	1,229	1,868	177,638
1939.....	51	17,257	3,375	536	4,620	1,395	² 2,183	195	717	103	51,113
1919.....	107	13,190	3,863	326	6,313	850	3,151	258	469	168	29,072

¹See table 1, footnote 1.²Excludes the cost of crude ore and old tailings received for milling.³Represents net value. See table 1, footnote 11.⁴Excludes employees at central offices. See table 1, footnote 13.⁵For 1954, represents the total of the figures for the "Lead ores" industry plus the figures for those establishments in the "Lead-zinc ores" industry whose products were valued chiefly for the lead contained. For 1939 and 1929, represents the "Lead ores" industry as then defined. See table 1, footnote 6.⁶For 1954, represents the total of the figures for the "Zinc ores" industry plus the figures for those establishments in the "Lead-zinc ores" industry whose products were valued chiefly for the zinc contained. For 1939 and 1929, represents the "Zinc ores" industry as then defined. See table 1, footnote 6.⁷Includes 499 salaried employees at central offices in Massachusetts, New York, Missouri, and Texas paid \$4,103,000 in salaries.⁸Cost of contract work is included with cost of supplies.⁹For 1954, represents New Hampshire, Vermont, New York, New Jersey, Pennsylvania, Illinois, Wisconsin, Maryland, Virginia, North Carolina, Kentucky, Tennessee, Arkansas, and Texas. For 1939, represents New York, New Jersey, Wisconsin, Kentucky, Tennessee, and Virginia; also includes statistics covering employees in central offices in New York and Massachusetts. For 1919, represents New York, New Jersey, Pennsylvania, Illinois, Wisconsin, Tennessee, and Arkansas.¹⁰Includes 222 salaried employees at central offices in Idaho, Arizona, and Utah paid \$1,376,000 in salaries.¹¹Includes South Dakota. See footnote 12.¹²For all years, represents New Mexico, Arizona, Utah, Nevada, and Washington and also, for 1954, California, and for 1919, South Dakota, Montana, and California.

Table 3.—DETAILED STATISTICS FOR THE LEAD AND ZINC ORES

(For explanation of line

	Item	United States			Northeast and East North Central			
		Total	Valued chiefly for--		Total		Illinois	Other States ³
			Lead ¹	Zinc ²	All estab-lishments	Valued chiefly for zinc ²		
1	Number of operating companies.....	411	302	118	17	12	7	12
2	Number of establishments.....	520	343	177	32	27	10	22
3	Number of mines.....	491	332	159	28	23	8	20
4	Number of mills.....	141	78	63	14	14	2	12
5	Crude ore mined, total.....1,000 short tons...	18,526	9,698	8,828	1,840	1,840	401	1,439
6	From underground operations.....do....	17,805	9,445	8,360	1,840	1,840	401	1,439
7	From open-pit operations.....do....	721	253	468	...	...	...	...
8	Direct-smelting ores shipped ⁶.....do....	451	165	286	(D)	(D)	...	(D)
9	Crude ore and old tailings milled.....do....	19,941	10,630	9,311	1,793	1,793	(D)	(D)
10	Lead, zinc, copper, gold, and silver concentrates shipped....do....	1,354	567	787	271	271	(D)	(D)
	Recoverable content of direct-smelting ores and old tailings and of concentrates: ⁷							
11	Lead.....1,000 pounds...	631,144	513,893	117,251	8,797	8,642	3,895	4,902
12	Zinc.....do....	881,153	181,470	699,683	229,822	229,822	19,780	210,042
13	Value of shipments, total.....\$1,000...	175,947	94,874	81,073	17,144	17,115	3,082	14,062
14	Milling ores.....do....	35,815	17,673	18,142	2,118	2,104	(D)	(D)
15	Net shipments, total.....do....	140,132	77,201	62,931	15,026	15,011	(D)	(D)
16	Direct-smelting ores.....do....	6,773	3,097	3,676	14,876	14,861	(D)	{ (D) 11,181 150
17	Lead, zinc, copper, gold, and silver concentrates ⁸.....do....	131,828	73,352	58,476				
18	Other products and services.....do....	1,531	752	779				
19	Value added in mining.....do....	107,409	62,713	44,696	11,950	11,925	1,239	10,711
20	Number of persons engaged, total.....	17,016	9,038	7,978	1,883	1,759	113	1,770
21	Production and development workers.....	13,592	7,156	6,436	1,279	1,278	84	1,195
22	All other employees.....	2,974	1,564	1,410	576	463	22	554
23	Proprietors and firm members.....	450	318	132	28	18	7	21
24	Performing manual labor.....	343	257	86	13	3	7	6
25	Man-hours worked by production and development workers, total.....1,000...	27,554	14,654	12,900	2,622	2,620	176	2,446
26	At mines, total.....do....	22,973	12,790	10,183	1,645	1,643	113	1,532
27	Underground.....do....	18,357	10,273	8,084	1,376	1,374	90	1,286
28	Open-pit.....do....	139	101	38	...	...	...	...
29	Surface (including mine shops and yards).....do....	4,477	2,416	2,061	269	269	23	246
30	At mills.....do....	4,581	1,864	2,717	977	977	63	914
31	Man-hours spent on development and exploration work.....do....	1,498	954	544	73	73	6	67
	Recoverable content per man-hour:							
32	Lead.....pounds...	23	35	9	3	3	22	2
33	Zinc.....do....	32	12	54	88	88	112	86
34	Value of net shipments per man-hour.....\$1...	5.09	5.27	4.88	5.73	5.73	(D)	(D)
35	Principal expenses designated below, total.....\$1,000...	145,479	73,445	72,034	15,148	13,852	2,361	12,787
36	Wages of production and development workers.....do....	53,676	29,549	24,127	4,958	4,953	348	4,610
37	Salaries of all other employees.....do....	17,687	9,453	8,234	4,311	3,024	147	4,164
38	Crude ore and old tailings received for milling.....do....	35,116	14,197	20,919	2,124	2,124	1,705	2,919
39	Supplies.....do....	24,673	12,790	11,883	2,500	2,498		
40	Fuel.....do....	1,409	600	809	313	312		
41	Purchased electric energy.....do....	6,838	4,027	2,811	699	698	140	559
42	Contract work.....do....	6,080	2,829	3,251	243	243	7	236
43	Purchased machinery installed.....do....	5,942	2,878	3,064	619	617	4	615
44	Capital expenditures, total.....do....	11,520	5,160	6,360	1,304	1,302	27	1,277
45	Development and exploration of mineral property.....do....	6,509	3,229	3,280	308	306	27	281
46	Mill construction.....do....	1,140	191	949	433	433	...	433
47	Other construction.....do....	914	538	376	4	4	...	4
48	New machinery and equipment.....do....	2,509	925	1,584	495	495	...	495
49	Used plant and equipment.....do....	448	277	171	64	64	...	64
50	Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	749,617	423,204	326,413	62,555	62,100	7,943	54,612
51	Per production worker.....	55	59	51	49	49	95	46
52	Prime movers.....	169,162	94,209	74,953	31,847	31,492	3,876	27,971
53	Electric motors driven by purchased energy.....	580,455	328,995	251,460	30,708	30,608	4,067	26,641
54	Horsepower rating of electric motors driven by energy generated at the establishment reported.....	30,943	23,064	7,879	6,100	6,100	...	6,100
55	Energy used.....million kwh equivalent...	1,641	749	892	292	292	12	280
56	Coal.....1,000 short tons...	50	13	37	28	28	...	28
57	Fuel oils.....1,000 barrels...	83	35	48	14	14	2	12
58	Natural gas.....million cu. ft....	922	273	649	...	...	...	...
59	Electric energy purchased.....million kwh...	759	456	303	55	55	8	47
60	Electric energy generated and used.....do....	35	27	8	5	5	...	5
61	Water intake, including mine water used.....million gallons...	22,149	11,015	11,134	2,996	2,996	795	2,201
62	Per production worker.....do....	1.63	1.54	1.73	2.34	2.34	9.46	1.84

See footnotes at end of table.

LEAD AND ZINC ORES

10E-11

INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954
 captions, see INTRODUCTION)

West North Central									South								
Total	Valued chiefly for—		Missouri			Kansas			Total	Valued chiefly for—		Oklahoma			Other States ⁴		
	Lead ¹	Zinc ²	Total	Valued chiefly for—		Total	Valued chiefly for—			Lead ¹	Zinc ²	Total	Valued chiefly for—		All estab-lish-ments	Valued chiefly for zinc ²	
				Lead ¹	Zinc ²		Lead ¹	Zinc ²					Lead ¹	Zinc ²			
32	11	23	9	4	5	24	7	18	68	21	48	60	18	43	9	6	1
40	13	27	11	6	5	29	7	22	92	22	70	73	19	54	19	16	2
35	12	23	9	6	3	26	6	20	86	21	65	67	18	49	19	16	3
15	5	10	9	4	5	6	1	5	16	3	13	11	3	8	5	5	4
7,671	6,505	1,166	6,539	6,379	160	1,132	126	1,006	4,023	432	3,591	2,410	432	1,978	1,613	1,613	5
7,385	6,505	1,166	{ 6,254 285 }	6,379	160	{ 1,131 1 }	126	1,005	4,022	432	3,590	2,409	432	1,977	1,613	1,613	6
286																	
9	...	9	...	...	...	9	...	9	(D)	...	(D)	(D)	...	(D)	...	...	8
8,540	7,975	565	8,120	(D)	(D)	420	(D)	(D)	4,837	(D)	(D)	3,225	(D)	(D)	1,612	1,612	9
209	192	17	195	(D)	(D)	14	(D)	(D)	198	(D)	(D)	121	(D)	(D)	77	77	10
252,748	251,277	1,471	251,033	(D)	(D)	1,715	(D)	(D)	42,121	(D)	(D)	(D)	(D)	32,561	(D)	(D)	11
23,958	6,750	17,208	10,791	(D)	(D)	13,167	(D)	(D)	197,858	(D)	(D)	110,994	(D)	(D)	86,864	86,864	12
34,213	31,087	3,126	30,946	30,563	383	3,267	524	2,743	22,825	1,516	21,309	15,129	1,516	13,613	7,696	7,696	13
2,186	(D)	(D)	...	...	...	2,186	(D)	(D)	5,868	(D)	(D)	(D)	(D)	3,749	(D)	(D)	14
32,027	(D)	(D)	30,946	30,563	383	1,081	(D)	(D)	16,957	(D)	(D)	(D)	(D)	9,864	(D)	(D)	15
53	(D)	(D)	30,946	30,563	{ ... 383 }	1,076	{ ... (D)	(D)	16,387	{ ... (D)	(D)	9,970	...	9,864	{ ... (D)	...	16
31,969	30,614	1,355															
5	(D)	(D)	...	...	...	5	(D)	(D)	570	...	570	...	...	...	570	570	18
24,880	22,909	1,971	22,708	22,513	195	2,172	396	1,776	10,908	1,110	9,798	5,465	1,107	4,358	5,443	5,440	19
3,857	3,332	525	3,457	3,274	183	400	58	342	2,471	187	2,284	1,104	181	923	1,367	1,361	20
3,108	2,752	356	2,766	2,700	66	342	52	290	2,061	152	1,909	984	149	835	1,077	1,074	21
717	573	144	685	573	112	32	...	32	315	1	314	30	1	29	285	285	22
32	7	25	6	1	5	26	6	20	95	34	61	90	31	59	5	2	23
21	2	19	5	1	4	16	1	15	73	28	45	70	26	44	3	1	24
6,222	5,409	813	5,410	5,289	121	812	120	692	4,317	340	3,977	2,375	337	2,038	1,942	1,939	25
5,142	4,468	674	4,453	4,360	93	689	108	581	3,371	323	3,048	1,672	320	1,352	1,699	1,696	26
4,128	3,632	496	3,561	3,544	17	567	88	479	2,683	283	2,400	1,396	281	1,115	1,287	1,285	27
71	33	38	71	33	38	...	...	...	...	...	...	...	...	...	...	...	28
943	803	140	821	783	38	122	20	102	688	40	648	276	39	237	412	411	29
1,080	941	139	957	929	28	123	12	111	946	17	929	703	17	686	243	243	30
121	85	36	82	79	3	39	6	33	256	8	248	18	7	11	238	237	31
41	46	2	46	(D)	(D)	2	(D)	(D)	10	(D)	(D)	(D)	(D)	16	(D)	(D)	32
4	1	21	2	(D)	(D)	16	(D)	(D)	46	(D)	(D)	47	(D)	(D)	45	45	33
5.15	(D)	(D)	5.72	5.78	3.17	1.33	(D)	(D)	3.93	(D)	(D)	(D)	(D)	4.84	(D)	(D)	34
24,670	21,403	3,267	22,271	21,078	1,193	2,399	325	2,074	22,706	960	21,746	13,577	957	12,620	9,129	9,126	35
12,271	10,931	1,340	10,950	10,746	204	1,321	185	1,136	6,949	520	6,429	3,794	517	3,277	3,155	3,152	36
3,955	2,988	967	3,801	2,985	816	154	3	151	1,551	6	1,545	130	6	124	1,421	1,421	37
96	4,084	675	4,103	3,518	9126	656	9115	9565	{ 7,427 3,543 }	126	184	141	12	129	55	55	40
4,663																	
199	157	42	164	154	10	35	3	32	196	12	184	539	72	467	397	397	41
2,250	2,023	227	2,041	2,004	37	209	19	190	936	72	864	539	72	467	397	397	42
1,236	1,220	16	1,212	(9)	(9)	24	(9)	(9)	2,104	12	2,092	37	12	25	2,067	2,067	43
1,754	1,489	265	1,495	1,478	17	259	11	248	1,167	12	1,155	169	12	157	998	998	44
865	795	70	777	775	2	88	20	68	3,456	40	3,416	158	37	121	3,298	3,295	45
499	465	34	457	455	2	42	10	32	2,492	28	2,464	37	25	12	2,455	2,452	46
28	28	...	28	28	...	...	...	...	197	...	197	...	...	...	197	197	47
214	214	...	214	214	...	...	...	...	328	...	328	...	...	...	328	328	48
102	66	36	56	56	...	46	10	36	383	4	379	111	4	107	272	272	49
22	22	...	22	22	...	...	...	...	56	8	48	10	8	2	46	46	50
190,098	171,964	18,134	172,710	170,222	2,488	17,388	1,742	15,646	150,073	5,752	144,321	112,947	5,172	107,775	37,126	36,546	51
61	62	51	62	63	38	51	34	54	73	38	76	115	35	129	34	34	52
20,776	12,256	8,520	12,160	11,210	950	8,616	1,046	7,570	21,228	3,046	18,182	15,813	2,466	13,347	5,415	4,835	53
169,322	159,708	9,614	160,550	159,012	1,538	8,772	696	8,076	128,845	2,706	126,139	97,134	2,706	94,428	31,711	31,711	54
...	...	...	...	...	...	...	...	...	46	...	46	46	...	46	...	...	55
341	307	34	310	305	5	31	2	29	204	8	196	131	8	123	73	73	56
...	...	...	...	...	...	...	...	...	6	...	6	5	...	5	1	1	57
11	8	3	9	8	1	2	...	2	12	1	11	5	1	4	7	7	58
223	188	35	188	188	...	35	...	35	98	2	96	98	2	96	...	...	59
242	227	15	228	226	2	14	1	13	92	4	88	40	4	36	52	52	60
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	61
5,336	4,224	1,112	4,912	4,199	713	424	25	399	2,017	126	1,891	685	126	559	1,332	1,332	62
1.72	1.53	3.12	1.78	1.56	10.80	1.24	0.48	1.38	0.98	0.83	0.99	0.70	0.85	0.67	1.24	1.24	63

Table 3.—DETAILED STATISTICS FOR THE LEAD AND ZINC ORES

(For explanation of line

Item	Mountain							
	Total	Valued chiefly for—		Montana	Total	Idaho		Colorado
		Lead ¹	Zinc ²			Valued chiefly for—		
						Lead ¹	Zinc ²	
1 Number of operating companies.....	271	247	31	45	60	50	12	64
2 Number of establishments.....	321	280	41	47	77	64	13	68
3 Number of mines.....	307	271	36	45	73	61	12	67
4 Number of mills.....	86	66	20	8	33	23	10	21
5 Crude ore mined, total.....1,000 short tons...	3,971	2,251	1,720	910	1,250	946	304	811
6 From underground operations.....do.....	3,971	2,251	1,720	904	1,249	945	304	810
7 From open-pit operations.....do.....			...	6	1	1	...	1
8 Direct-smelting ores shipped ⁶.....do.....	253	(D)	(D)	14	8	8	...	(D)
9 Crude ore and old tailings milled.....do.....	3,757	2,106	1,651	921	1,266	953	313	659
10 Lead, zinc, copper, gold, and silver concentrates shipped....do.....	633	350	283	129	183	123	60	(D)
Recoverable content of direct-smelting ores and old tailings and of concentrates: ⁷								
11 Lead.....1,000 pounds...	302,213	241,172	61,041	27,507	126,084	106,251	19,833	33,300
12 Zinc.....do.....	380,624	157,496	223,128	108,134	100,745	52,245	48,500	68,089
13 Value of shipments, total.....\$1,000...	96,783	59,536	37,247	23,458	24,768	19,976	4,792	12,822
14 Milling ores.....do.....	25,642	15,838	9,804	9,667	2,484	(D)	(D)	1,071
15 Net shipments, total.....do.....	71,141	43,698	27,443	13,791	22,284	(D)	(D)	11,751
16 Direct-smelting ores.....do.....	4,416	(D)	(D)	435	230	230	...	11,731
17 Lead, zinc, copper, gold, and silver concentrates ⁸.....do.....	65,921	40,199	25,722	13,354	21,859	17,194	4,665	
18 Other products and services.....do.....	804	(D)	(D)	2	195	(D)	(D)	20
19 Value added in mining.....do.....	56,713	36,666	20,047	9,501	18,162	15,008	3,154	10,075
20 Number of persons engaged, total.....	8,383	5,112	3,271	1,967	2,566	1,993	573	1,316
21 Production and development workers.....	6,836	4,039	2,797	1,600	2,200	1,668	532	1,079
22 All other employees.....	1,287	829	458	318	322	287	35	166
23 Proprietors and firm members.....	260	244	16	49	44	38	6	71
24 Performing manual labor.....	212	198	14	40	35	29	6	59
25 Man-hours worked by production and development workers, total.....1,000...	13,755	8,486	5,269	2,833	4,543	3,468	1,075	2,217
26 At mines, total.....do.....	12,337	7,635	4,702	2,520	4,155	3,172	983	1,909
27 Underground.....do.....	9,771	6,054	3,717	1,982	3,334	2,569	765	1,557
28 Open-pit.....do.....	67	67	...	5	...	...	...	...
29 Surface (including mine shops and yards).....do.....	2,499	1,514	985	533	821	603	218	352
30 At mills.....do.....	1,418	851	567	313	388	296	92	308
31 Man-hours spent on development and exploration work.....do.....	1,017	837	180	33	395	275	120	282
Recoverable content per man-hour:								
32 Lead.....pounds...	22	28	12	10	28	31	18	15
33 Zinc.....do.....	28	19	42	38	22	15	45	31
34 Value of net shipments per man-hour.....\$1...	5.17	5.15	5.21	4.87	4.91	(D)	(D)	5.30
35 Principal expenses designated below, total.....\$1,000...	79,082	47,845	31,237	22,092	19,593	15,218	4,375	8,636
36 Wages of production and development workers.....do.....	28,152	17,209	10,943	6,103	9,757	7,413	2,344	4,273
37 Salaries of all other employees.....do.....	7,355	4,837	2,518	1,723	1,889	1,677	212	779
38 Crude ore and old tailings received for milling.....do.....	25,469	14,041	11,428	13,612	{ 2,165 }	5,088	1,501	{ 2,326 }
39 Supplies.....do.....	12,818	7,903	4,915					
40 Fuel.....do.....	648	387	261	139	128	97	31	144
41 Purchased electric energy.....do.....	2,817	1,886	931	444	792	579	213	488
42 Contract work.....do.....	1,823	1,582	241	71	438	364	74	120
43 Purchased machinery installed.....do.....	2,112	1,207	905	631	383	301	82	506
44 Capital expenditures, total.....do.....	5,617	4,136	1,481	940	1,724	1,461	263	1,343
45 Development and exploration of mineral property.....do.....	3,096	2,697	399	36	1,426	1,217	209	702
46 Mill construction.....do.....	475	156	319	342	43	43	...	66
47 Other construction.....do.....	356	312	44	16	4	4	...	257
48 New machinery and equipment.....do.....	1,401	731	670	528	166	124	42	243
49 Used plant and equipment.....do.....	289	240	49	18	85	73	12	75
50 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	319,784	229,836	89,948	45,012	86,529	60,707	25,822	37,712
51 Per production worker.....	47	57	32	28	39	36	49	35
52 Prime movers.....	80,601	67,307	13,294	4,900	16,595	11,819	4,776	13,856
53 Electric motors driven by purchased energy.....	239,183	162,529	76,654	40,112	69,934	48,888	21,046	23,856

See footnotes at end of table.

LEAD AND ZINC ORES

10E-13

INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954--Continued
 captions, see INTRODUCTION)

Utah	Nevada	New Mexico and Arizona ⁵	Pacific			Washington	California	
			Total	Valued chiefly for—				
				Lead ¹	Zinc ²			
29	31	50	33	21	12	18	15	1
37	37	55	35	23	12	18	17	2
34	36	52	35	23	12	18	17	3
5	4	15	10	4	6	9	1	4
626	71	303	1,021	510	511	993	28	5
}	626	71	303	510	511	993	28	6
	106	(D)	6	8	...	1	7	8
	549	(D)	(D)	(D)	(D)	(D)	(D)	9
	151	(D)	54	51	23	28	(D)	10
	91,026	5,860	18,436	25,265	(D)	(D)	19,873	5,392	11
68,082	2,139	33,435	48,891	(D)	(D)	45,976	2,915	12
28,702	1,156	5,877	4,982	2,706	2,276	4,247	735	13
12,349	45	26	1	...	1	...	1	14
16,353	1,111	5,851	4,981	2,706	2,275	4,247	734	15
1,173	890	{	333	332	1	4,245	734	16
14,901			2,372	2,274	...		17	
279			2	...	2		18	
13,512	1,018	4,445	2,958	2,003	955	2,348	610	19
1,701	276	557	422	284	138	310	112	20
1,334	205	418	308	212	96	249	59	21
352	41	88	79	48	31	49	30	22
15	30	51	35	24	11	12	23	23
9	28	41	24	20	4	8	16	24
2,857	380	925	638	419	219	510	128	25
2,665	317	771	478	364	114	362	116	26
2,170	201	527	399	304	95	301	98	27
9	4	49	1	1	...	...	1	28
486	112	195	78	59	19	61	17	29
192	63	154	160	55	105	148	12	30
89	117	101	31	24	7	9	22	31
32	15	20	40	(D)	(D)	39	42	32
24	6	36	77	(D)	(D)	90	23	33
5.72	2.92	6.33	7.81	6.46	10.39	8.33	5.73	34
23,000	1,828	3,933	3,873	1,941	1,932	3,276	597	35
5,543	808	1,668	1,346	884	462	1,083	263	36
2,200	259	505	515	335	180	343	172	37
11,470	420	976	{	...	...	...	...	38
2,388				619	530	1,047	102	39
77				43	10	143	46	40
774				91	91	660	14	41
548				15	659	276	14	42
290	91	211	290	168	122	276	14	43
357	714	539	278	187	91	227	51	44
63	591	278	114	37	77	85	29	45
...	5	19	7	7	...	7	...	46
10	28	41	12	12	...	4	8	47
218	77	169	128	124	4	120	8	48
66	13	32	17	7	10	11	6	49
84,340	38,576	27,615	27,107	15,197	11,910	19,887	7,220	50
63	188	66	88	72	124	80	122	51
9,167	23,683	12,400	14,710	11,245	3,465	10,690	4,020	52
75,173	14,893	15,215	12,397	3,952	8,445	9,197	3,200	53

Table 3.--DETAILED STATISTICS FOR THE LEAD AND ZINC ORES

(For explanation of line

Item		Mountain							
		Total	Valued chiefly for-		Montana	Idaho		Colorado	
			Lead ¹	Zinc ²		Total	Valued chiefly for--		
							Lead ¹		Zinc ²
1	Horsepower rating of electric motors driven by energy generated at the establishments reported.....	18,569	16,836	1,733	...	1,786	1,786	...	2,400
2	Energy used.....million kwh equivalent...	767	414	353	247	183	136	47	99
3	Coal.....1,000 short tons...	15	12	3	...	5	3	2	4
4	Fuel oils.....1,000 barrels...	41	23	18	1	7	7	...	13
5	Natural gas.....million cu. ft....	601	83	518	518	...	...	...	...
6	Electric energy purchased.....million kwh...	353	221	132	80	121	91	30	39
7	Electric energy generated and used.....do.....	13	10	3	...	5	5	...	4
8	Water intake, including mine water used.....million gallons...	10,991	6,196	4,795	1,739	2,444	2,064	380	3,849
9	Per production worker.....do.....	1.61	1.53	1.71	1.09	1.11	1.24	0.71	3.57

D. Withheld to avoid approximately disclosing figures for individual companies.

¹Represents the total of the figures for "Lead ores" industry plus the figures for those establishments in the "Lead-zinc ores" industry whose products were valued chiefly for the lead contained. These establishments will be so identified in all subsequent tables. See table 1, footnote 6.²Represents the total of the figures for the "Zinc ores" industry plus the figures for those establishments in the "Lead-zinc ores" industry whose products were valued chiefly for the zinc contained. These establishments will be so identified in all subsequent tables. See table 1, footnote 6.³New Hampshire, 1 establishment; Vermont, 1 establishment; New York, 3 establishments; New Jersey, 3 establishments; Pennsylvania, 1 establishment; and Wisconsin, 13 establishments.⁴Maryland, 1 establishment; Virginia, 4 establishments; North Carolina, 1 establishment; Kentucky, 1 establishment; Tennessee, 9 establishments; Arkansas, 2 establishments; and Texas, 1 establishment.⁵New Mexico, 14 establishments; and Arizona, 40 establishments.⁶See table 1, footnote 7.⁷See table 1, footnote 10.⁸Includes the value of copper precipitates and gold bullion.⁹Cost of contract work is included with cost of supplies.

INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954--Continued
 captions, see INTRODUCTION)

Utah	Nevada	New Mexico and Arizona	Pacific			Washington	California	
			Total	Valued chiefly for—				
				Lead ¹	Zinc ²			
...	13,009	1,374	6,228	6,228	...	6,228	...	1
135	29	74	37	20	17	31	6	2
6	...	...	1	1	...	1	...	3
2	4	14	5	3	2	4	1	4
11	...	72	...	...	...	...	...	5
79	18	16	17	4	13	15	2	6
...	2	2	17	17	...	17	...	7
2,361	284	314	809	469	340	790	19	8
1.77	1.39	0.75	2.63	2.21	3.54	3.17	0.32	9

Table 4.--DETAILED STATISTICS FOR THE LEAD AND ZINC ORES

Part I: Establishments

(For explanation of line

	Item	Lead and zinc ores industries, total										
		All types of establishments	Producing establishments									Mills only ³
			Open-pit and combined open-pit and underground mines		Underground mines							
					Total		Principal mining method					
							Without producing mill ¹	With producing mill	Open stoping	Shrinkage stoping	Square-setting		Cut-and-fill stoping	Top slicing and other methods^{2}
		Without producing mill ¹	With producing mill	Without producing mill ¹	With producing mill	Open stoping	Shrinkage stoping	Square-setting	Cut-and-fill stoping	Top slicing and other methods ²		
1	Number of operating companies.....	411	29	8	206	58	129	26	16	17	82	22
2	Number of establishments.....	520	33	8	244	74	166	29	18	18	87	26
3	Number of mines.....	491	33	8	244	74	166	29	18	18	87	1
4	Number of mills.....	141	1	8	9	74	38	15	7	8	15	26
5	Crude ore mined.....1,000 short tons...	18,526	36	1,003	6,046	11,441	13,554	834	916	1,692	491	...
	Gross metal content:											
6	Lead.....1,000 pounds...	674,446	1,661	23,025	279,892	369,868	348,822	52,173	27,332	210,428	11,005	...
7	Zinc.....do....	1,061,588	898	29,351	456,463	574,876	535,240	89,041	112,270	195,001	99,787	...
8	Value of shipments.....\$1,000...	175,947	285	4,143	38,528	95,028	62,225	17,113	25,327	19,729	9,162	37,963
9	Value added in mining.....do....	107,409	240	2,442	30,815	69,045	46,466	11,078	19,216	15,501	7,599	4,751
10	Number of persons engaged, total.....	517,016	53	338	4,616	10,155	7,187	1,318	3,220	1,906	1,140	699
11	Production and development workers.....	13,592	10	285	3,898	8,562	5,992	1,107	2,766	1,738	857	564
12	All other employees.....	52,974	1	46	457	1,554	1,036	194	443	157	181	116
13	Proprietors and firm members.....	450	42	7	261	39	159	17	11	11	102	19
14	Performing manual labor.....	343	37	5	204	21	103	14	10	9	89	14
15	Man-hours worked by production and development workers, total.....1,000...	27,554	20	590	7,857	17,342	12,338	2,301	5,315	3,606	1,639	1,203
16	At mines, total.....do....	22,973	20	399	7,837	14,214	10,441	1,884	5,100	3,459	1,167	...
17	Underground and open-pit.....do....	18,496	13	292	6,510	11,305	8,494	1,470	4,027	2,845	979	...
18	Surface (including mine shops and yards).....do....	4,477	7	107	1,327	2,909	1,947	414	1,073	614	188	...
19	At mills.....do....	4,581	...	191	20	3,128	1,897	417	215	147	472	1,203
20	Man-hours spent on development and exploration work (included above).....do....	1,498	2	...	250	740	416	193	122	178	81	...
21	Crude ore mined per man-hour at mine.....short tons...	0.81	1.80	2.51	0.77	0.80	1.30	0.44	0.18	0.49	0.42	...
	Gross metal content of crude ore mined per man-hour at mine:											
22	Lead.....pounds...	29	83	58	36	26	33	28	5	62	9	...
23	Zinc.....do....	46	45	74	58	40	51	47	22	56	86	...
24	Principal expenses designated below, total.....\$1,000...	5145,479	83	3,066	26,157	69,134	44,042	12,063	20,300	12,933	5,953	36,260
25	Wages of production and development workers.....do....	53,676	30	1,116	15,267	34,030	22,784	4,639	11,403	7,405	3,066	2,165
26	Salaries of all other employees.....do....	517,687	3	241	2,686	8,391	5,461	1,019	2,703	1,042	852	557
27	Crude ore and old tailings received for milling.....do....	35,116	...	...	...	5,084	10,523	5,044	5,182	3,638	1,468	30,032
28	Supplies.....do....	24,673	11	670	5,856	14,915	...	...	...	...	...	2,334
29	Fuel.....do....	1,409	10	57	288	839	515	131	128	75	278	170
30	Purchased electric energy.....do....	6,838	...	196	1,388	4,490	3,522	723	765	656	212	657
31	Contract work.....do....	6,080	29	786	672	1,385	1,237	507	119	117	77	345
32	Purchased machinery installed.....do....	5,942	14	108	749	3,732	2,897	805	309	341	129	557
33	Capital expenditures, total.....do....	11,520	19	116	1,240	4,462	2,935	1,175	392	599	601	883
34	Development and exploration of mineral property.....do....	6,509	5	112	591	2,117	1,491	229	214	273	501	...
35	Mill construction.....do....	1,140	...	...	64	490	244	285	...	12	13	313
36	Other construction.....do....	914	...	...	39	540	459	63	11	32	14	2
37	New machinery and equipment.....do....	2,509	9	2	398	1,161	602	548	142	218	49	563
38	Used plant and equipment.....do....	448	5	2	148	154	139	50	25	64	24	5
39	Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	749,617	2,705	15,359	160,100	402,093	316,077	46,676	82,756	78,049	38,635	115,878
40	Per production worker.....	55	271	54	41	47	53	42	30	45	45	205
41	Prime movers.....	169,162	2,705	3,988	41,767	87,667	68,674	11,920	10,333	9,384	29,123	6,386
42	Electric motors driven by purchased energy.....	580,455	...	11,371	118,333	314,426	247,403	34,756	72,423	68,665	9,512	109,492
43	Horsepower rating of electric motors driven by energy generated at the establishment....	30,943	...	...	389	17,740	7,471	2,216	1,639	...	6,803	46
44	Energy used.....million kwh equivalent...	1,641	2	59	312	1,006	586	132	247	116	237	243
45	Coal.....1,000 short tons...	50	...	...	3	39	4	5	2	5	26	8
46	Fuel oils.....1,000 barrels...	83	...	5	13	60	46	10	2	4	11	1
47	Natural gas.....million cu. ft....	922	...	72	328	202	235	...	295	...	...	320
48	Electric energy purchased.....million kwh...	759	...	21	145	515	373	72	129	69	17	70
49	Electric energy generated and used.....do....	35	...	...	...	33	19	5	3	...	6	...
50	Water intake, including mine water used.....million gallons...	22,149	...	683	1,149	15,325	9,010	1,566	2,462	835	2,601	4,982
51	Per production worker.....do....	1.63	...	2.40	0.30	1.79	1.50	1.41	0.89	0.48	3.04	8.83

See footnotes at end of table.

INDUSTRIES IN THE UNITED STATES, BY TYPE OF OPERATION: 1954

Classified by Mining Method)

captions, see INTRODUCTION)

Nonpro- ducing estab- lish- ments	Ores valued chiefly for lead							Ores valued chiefly for zinc							
	All types of estab- lishments	Mines				Mills only ³	Nonpro- ducing estab- lish- ments	All types of estab- lishments	Mines				Mills only	Nonpro- ducing estab- lish- ments	
		Total		Selected underground mining methods					Total		Selected underground mining methods				
		Without pro- ducing mill ¹	With pro- ducing mill	Open stoping	Cut- and- fill stoping				Without pro- ducing mill ¹	With pro- ducing mill	Open stoping	Cut- and- fill stoping			
110	302	172	39	68	12	12	87	118	67	25	66	5	12	24	1
135	343	191	48	76	13	12	92	177	86	34	90	5	14	43	2
131	332	191	48	76	13	1	92	159	86	34	90	5	...	39	3
23	78	6	48	17	3	12	12	63	4	34	21	5	14	11	4
...	9,698	2,057	7,641	7,156	1,244	...	...	8,828	4,025	4,803	6,398	448	...	...	5
...	553,825	230,700	323,125	293,129	178,372	...	...	120,621	50,853	69,768	55,693	32,056	...	...	6
...	238,608	165,613	72,995	63,239	116,583	...	...	822,980	291,748	531,232	472,001	78,418	...	...	7
...	94,874	20,630	61,174	36,126	11,315	13,070	...	81,073	18,183	37,997	26,099	8,414	24,893	...	8
116	62,713	17,010	43,771	27,509	9,191	1,735	197	44,696	14,045	27,716	18,957	6,310	3,016	(⁴)	9
434	⁵ 9,038	2,128	6,186	4,041	1,207	127	265	⁵ 7,978	2,541	4,307	3,146	699	572	169	10
273	7,156	1,735	5,176	3,317	1,090	99	146	6,436	2,173	3,671	2,675	648	465	127	11
79	⁵ 1,564	176	989	646	106	20	47	⁵ 1,410	282	611	390	51	96	32	12
82	318	217	21	78	11	8	72	132	86	25	81	...	11	10	13
62	257	179	15	52	9	8	55	86	62	11	51	...	6	7	14
542	14,654	3,630	10,521	6,624	2,284	210	293	12,900	4,247	7,411	5,714	1,322	993	249	15
503	12,790	3,623	8,876	5,594	2,253	...	291	10,183	4,234	5,737	4,847	1,206	...	212	16
376	10,374	3,145	7,053	4,611	1,914	...	176	8,122	3,378	4,544	3,883	931	...	200	17
127	2,416	478	1,823	983	339	...	115	2,061	856	1,193	964	275	...	12	18
39	1,864	7	1,645	1,030	31	210	2	2,717	13	1,674	867	116	993	37	19
506	954	202	483	241	47	...	269	544	50	257	175	131	...	237	20
...	0.76	0.57	0.86	1.28	0.55	...	...	0.87	0.95	0.84	1.32	0.37	...	...	21
...	43	64	36	52	79	...	...	12	12	12	11	27	...	...	22
...	19	46	8	11	52	...	...	81	69	93	97	65	...	...	23
5,300	⁵ 73,445	12,157	45,018	25,437	7,453	11,831	1,793	⁵ 72,034	14,083	27,182	18,605	5,480	24,429	3,507	24
1,068	29,549	6,960	21,566	13,159	4,510	381	642	24,127	8,337	13,580	9,625	2,895	1,784	426	25
330	⁵ 9,453	1,074	5,417	3,450	719	112	204	⁵ 8,234	1,615	3,215	2,011	323	445	126	26
...	14,197	...	3,929	...	...	{ 10,268	...	20,919	...	1,155	...	{ 19,764	...	...	27
887	12,790	2,693	9,247	5,286	61,841	572	278	11,883	3,174	6,338	5,237	61,914	1,762	609	28
45	600	175	360	247	33	27	38	809	123	536	268	42	143	7	29
107	4,027	703	3,096	2,211	350	150	78	2,811	685	1,590	1,311	306	507	29	30
2,863	2,829	552	1,403	1,084	(⁶)	321	553	3,251	149	768	153	(⁶)	24	2,310	31
782	2,878	379	2,189	1,683	139	83	227	3,064	384	1,651	1,214	202	474	555	32
4,800	5,160	882	2,821	1,894	239	86	1,371	6,360	377	1,757	1,041	360	797	3,429	33
3,684	3,229	528	1,631	997	106	...	1,070	3,280	68	598	494	167	...	2,614	34
273	191	3	108	62	2	4	76	949	61	382	182	10	309	197	35
333	538	26	498	443	4	...	14	376	13	42	16	28	2	319	36
376	925	210	499	323	90	77	139	1,584	197	664	279	128	486	237	37
134	277	115	85	69	37	5	72	171	38	71	70	27	...	62	38
53,482	423,204	101,860	276,658	208,860	50,756	6,820	37,866	326,413	60,945	140,794	107,217	27,293	109,058	15,616	39
196	59	59	53	63	47	69	259	51	28	38	40	42	235	123	40
26,649	94,209	25,778	44,692	34,115	4,464	1,225	22,514	74,953	18,694	46,963	34,559	4,920	5,161	4,135	41
26,833	328,995	76,082	231,966	174,745	46,292	5,595	15,352	251,460	42,251	93,831	72,658	22,373	103,897	11,481	42
12,768	23,064	389	9,907	6,100	...	...	12,768	7,879	...	7,833	1,371	...	46	...	43
19	749	117	573	355	58	43	16	892	197	492	231	58	200	3	44
...	13	3	7	1	3	3	...	37	...	32	3	2	5	...	45
4	35	7	24	12	1	...	4	48	6	41	34	3	1	...	46
...	273	1	260	189	...	12	...	649	327	14	46	...	308	...	47
8	456	65	369	248	33	16	6	303	80	167	125	36	54	2	48
2	27	...	25	17	...	...	2	8	...	8	2	...	...	...	49
10	11,015	775	8,624	5,092	440	1,606	10	11,134	374	7,384	3,918	395	3,376	...	50
0.04	1.54	0.45	1.67	1.54	0.40	16.22	0.07	1.73	0.17	2.01	1.46	0.61	7.26	...	51

Table 4.—DETAILED STATISTICS FOR THE LEAD AND ZINC ORES INDUSTRIES

Part II: Producing Establishments

(For explanation of line

		Lead and zinc ores industries, total					
Item		All producing estab- lishments	Mines only ¹	Mills (with or without mines)			
				Total	Principal milling method		
					Flotation	Straight gravity	Magnetic and gravity, sink and float, and other ²
1	Number of operating companies.....	295	237	79	53	12	19
2	Number of establishments.....	385	277	108	73	15	20
3	Number of mines.....	360	277	83	57	9	17
4	Number of mills.....	118	10	108	73	15	20
5	Crude ore and old tailings milled.... 1,000 short tons...	19,941	...	19,941	17,630	1,024	1,287
	Gross metal content:						
6	Lead..... 1,000 pounds...	680,232	...	680,232	668,627	9,752	1,853
7	Zinc.....do....	1,033,730	...	1,033,730	873,964	44,130	115,636
8	Concentrates produced..... 1,000 short tons...	1,362	...	1,362	1,174	31	157
	Recoverable metal content:						
9	Lead..... 1,000 pounds...	610,167	...	610,167	602,329	6,489	1,349
10	Zinc.....do....	840,715	...	840,715	726,451	31,528	82,736
11	Value of shipments.....\$1,000...	175,947	38,813	137,134	125,549	2,723	8,862
12	Value added in mining.....do....	107,293	31,055	76,238	69,004	1,040	6,194
13	Number of persons engaged, total.....	15,861	4,669	11,192	9,615	313	1,264
14	Production and development workers.....	13,319	3,908	9,411	8,110	285	1,016
15	All other employees.....	2,174	458	1,716	1,467	15	234
16	Proprietors and firm members.....	368	303	65	38	13	14
17	Performing manual labor.....	281	241	40	19	10	11
18	Man-hours worked by production and development workers, total, 1,000...	27,012	7,877	19,135	16,451	691	1,993
19	At mines.....do....	22,470	7,857	14,613	12,948	429	1,236
20	At mills.....do....	4,542	20	4,522	3,503	262	757
21	Man-hours spent on development and exploration work (included above).....do....	992	252	740	710	...	30
	Ratio of recoverable metal content of concentrates produced to gross metal content of crude ore and old tailings milled:						
22	Lead.....	0.90	xxx	0.90	0.90	0.67	0.73
23	Zinc.....	0.81	xxx	0.81	0.83	0.71	0.72
	Recoverable metal content of concentrates produced per man-hour at mill:						
24	Lead.....pounds...	134	xxx	135	172	25	2
25	Zinc.....do....	185	xxx	186	207	120	109
26	Principal expenses designated below, total.....\$1,000...	134,700	26,240	108,460	98,227	2,835	7,398
27	Wages of production and development workers.....do....	52,608	15,297	37,311	32,571	1,126	3,614
28	Salaries of all other employees.....do....	11,878	2,689	9,189	7,908	80	1,201
29	Crude ore and old tailings received for milling.....do....	35,116	...	35,116	33,689	1,309	1,961
30	Supplies.....do....	23,786	5,867	17,919	16,076		
31	Fuel.....do....	1,364	298	1,066	714	87	265
32	Purchased electric energy.....do....	6,731	1,388	5,343	4,828	190	325
33	Contract work.....do....	3,217	701	2,516	2,441	43	32
34	Purchased machinery installed.....do....	5,160	763	4,397	3,463	100	834
35	Capital expenditures, total.....do....	6,720	1,259	5,461	4,666	46	749
36	Development and exploration of mineral property.....do....	2,825	596	2,229	2,144	11	74
37	Mill construction.....do....	867	64	803	521	23	259
38	Other construction.....do....	581	39	542	540	...	2
39	New machinery and equipment.....do....	2,133	407	1,726	1,306	9	411
40	Used plant and equipment.....do....	314	153	161	155	3	3
41	Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	696,135	162,805	533,330	474,170	11,273	47,887
42	Per production worker.....	52	42	57	58	40	47
43	Prime movers.....	142,513	44,472	98,041	65,432	5,267	27,342
44	Electric motors driven by purchased energy.....	553,622	118,333	435,289	408,738	6,006	20,545
45	Horsepower rating of electric motors driven by energy generated at the establishment.....	18,175	389	17,786	11,686	...	6,100
46	Energy used.....million kwh equivalent...	1,622	314	1,308	992	70	246
47	Coal..... 1,000 short tons...	50	3	47	19	1	27
48	Fuel oil..... 1,000 barrels...	79	13	66	57	4	5
49	Natural gas.....million cu. ft....	922	328	594	475	119	...
50	Electric energy purchased.....million kwh...	751	145	606	559	13	34
51	Electric energy generated and used.....do....	33	...	33	28	...	5
52	Water intake, including mine water used.....million gallons...	22,139	1,149	20,990	19,102	788	1,100
53	Per production worker.....do....	1.66	0.29	2.23	2.36	2.76	1.08

xxx Not applicable.

¹Includes mines with nonproducing mills, accounting for less than two percent of the combined value of shipments of approximately \$38.8 million for open-pit and underground mines without producing mills.²Includes mines not reporting their principal mining method. More than three-fourths of the value of shipments shown for top slicing and other methods represents top slicing and related methods.³Includes one mill with a nonproducing mine accounting for less than one percent of the total value of shipments for mills only.⁴The combined cost of supplies, fuel, purchased electric energy, contract work, and purchased machinery installed exceeded the capital expenditures for this group by \$81,000. See INTRODUCTION, "Value Added in Mining."

IN THE UNITED STATES, BY TYPE OF OPERATION: 1954--Continued

Classified by Milling Method

captions, see INTRODUCTION)

Ores valued chiefly for lead					Ores valued chiefly for zinc					
All producing estab- lishments	Mines only ¹	Mills (with or without mines)			All producing estab- lishments	Mines only ¹	Mills (with or without mines)			
		Total	Principal milling method				Total	Principal milling method		
			Flotation	Straight gravity and other				Flotation	Magnetic and gravity, sink and float, and other	
218	172	49	33	18	97	67	36	25	12	1
251	191	60	42	18	134	86	48	31	17	2
240	191	49	35	14	120	86	34	22	12	3
66	6	60	42	18	52	4	48	31	17	4
10,630	...	10,630	10,574	56	9,311	...	9,311	7,056	2,255	5
543,233	...	543,233	540,662	2,571	136,999	...	136,999	127,965	9,034	6
226,310	...	226,310	226,211	99	807,420	...	807,420	647,753	159,667	7
569	...	569	567	2	793	...	793	607	186	8
494,450	...	494,450	492,074	2,376	115,717	...	115,717	110,255	5,462	9
179,333	...	179,333	179,255	78	661,382	...	661,382	547,196	114,186	10
94,874	20,630	74,244	73,762	482	81,073	18,183	62,890	51,787	11,103	11
62,516	17,010	45,506	45,207	299	44,777	14,045	30,732	23,797	6,935	12
8,441	2,128	6,313	6,239	74	7,420	2,541	4,879	3,376	1,503	13
7,010	1,735	5,275	5,220	55	6,309	2,173	4,136	2,890	1,246	14
1,185	176	1,009	1,007	2	989	282	707	460	247	15
246	217	29	12	17	122	86	36	26	10	16
202	179	23	9	14	79	62	17	10	7	17
14,361	3,630	10,731	10,616	115	12,651	4,247	8,404	5,835	2,569	18
12,499	3,623	8,876	8,812	64	9,971	4,234	5,737	4,136	1,601	19
1,862	7	1,855	1,804	51	2,680	13	2,667	1,699	968	20
685	202	483	483	...	307	50	257	227	30	21
0.91	xxx	0.91	0.91	0.92	0.84	xxx	0.84	0.86	0.60	22
0.79	xxx	0.79	0.79	0.79	0.82	xxx	0.82	0.84	0.72	23
266	xxx	267	273	47	43	xxx	43	65	6	24
96	xxx	97	99	2	247	xxx	248	322	118	25
69,006	12,157	56,849	56,359	490	65,694	14,083	51,611	41,868	9,743	26
28,907	6,960	21,947	21,766	181	23,701	8,337	15,364	10,805	4,559	27
6,603	1,074	5,529	5,513	16	5,275	1,615	3,660	2,395	1,265	28
14,197	...	14,197	14,154	43	20,919	...	20,919	19,535	1,384	29
12,512	2,693	9,819	9,704	115	11,274	3,174	8,100	6,372	1,728	30
562	175	387	345	42	802	123	679	369	310	31
3,949	703	3,246	3,225	21	2,782	685	2,097	1,603	494	32
2,276	552	1,724	1,652	72	941	149	792	789	3	33
2,651	379	2,272	2,252	20	2,509	384	2,125	1,211	914	34
3,789	882	2,907	2,777	130	2,931	377	2,554	1,889	665	35
2,159	528	1,631	1,552	79	666	68	598	592	6	36
115	3	112	81	31	752	61	691	440	251	37
524	26	498	496	2	57	13	44	44	...	38
786	210	576	562	14	1,347	197	1,150	744	406	39
205	115	90	86	4	109	38	71	69	2	40
385,338	101,860	283,478	278,664	4,814	310,797	60,945	249,852	195,506	54,346	41
55	59	54	53	88	49	28	60	68	44	42
71,695	25,778	45,917	41,960	3,957	70,818	18,694	52,124	23,472	28,652	43
313,643	76,082	237,561	236,704	857	239,979	42,251	197,728	172,034	25,694	44
10,296	389	9,907	9,907	...	7,879	...	7,879	1,779	6,100	45
733	117	616	585	31	889	197	692	407	285	46
13	3	10	10	...	37	...	37	9	28	47
31	7	24	22	2	48	6	42	35	7	48
273	1	272	200	72	649	327	322	275	47	49
450	65	385	384	1	301	80	221	175	46	50
25	...	25	25	...	8	...	8	3	5	51
11,005	775	10,230	10,095	135	11,134	374	10,760	9,007	1,753	52
1.57	0.45	1.94	1.93	2.45	1.76	0.17	2.60	3.11	1.41	53

⁵Includes salaried employees at central offices not classified by type of operation. There were 332 such employees, paid \$2,646,000 in salaries, primarily serving establishments whose products were valued chiefly for their lead content and 389 employees, paid \$2,833,000 in salaries, primarily serving establishments whose products were valued chiefly for their zinc content.

⁶Cost of contract work is combined with cost of supplies.

⁷Includes mills not reporting their principal milling method; however, magnetic and gravity method and sink and float method account for more than 95 percent of the total value of shipments shown.

MINERAL INDUSTRIES--INDUSTRY STATISTICS

Table 5A.--PRODUCTS OF THE LEAD AND ZINC ORES INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES, 1954 AND 1939, AND LEAD AND ZINC CONCENTRATES PRODUCED IN ALL MINERAL INDUSTRIES, 1954

(For explanation of column captions, see INTRODUCTION)

Item	1954									1939 production	
	Production	Shipments and inter-plant transfers		Quantities of metals contained							
		(1,000 short tons)	Quantity (1,000 short tons)	Value f.o.b. mine or mill (\$1,000)	Basis	Lead (1,000 pounds)	Zinc (1,000 pounds)	Copper (1,000 pounds)	Gold (1,000 fine ounces)	Silver (1,000 fine ounces)	Quantity (1,000 short tons)	Value f.o.b. mine or mill ($1,000)
UNITED STATES											
LEAD AND ZINC ORES INDUSTRIES											
All products and services, total...	xxx	xxx	175,947	Recoverable.	631,144	881,153	22,910	117.1	15,894	xxx	72,648
Primary Products											
Crude ore mined, total.....	18,526	xxx	xxx	Gross.....	674,446	1,061,588	28,949	154.5	17,569	16,318	xxx
From underground operations.....	17,805	xxx	xxx	....do.....	661,654	1,031,610	28,906	153.5	17,431	(NA)	xxx
From open-pit operations.....	721	xxx	xxx	....do.....	12,792	29,978	43	1.0	138	(NA)	xxx
Milling ores, total ¹	xxx	5,331	35,815	....do.....	174,366	398,914	8,839	67.1	6,747	4,186	9,997
Sold or transferred to other mills, except for treatment on a custom basis.....	xxx	4,183	24,710	....do.....	122,585	321,133	6,899	28.3	4,989	(NA)	(NA)
Shipped to other mills for treatment on a custom basis.....	xxx	1,148	11,105	....do.....	51,781	77,781	1,940	38.8	1,758	(NA)	(NA)
Direct-smelting ores.....	xxx	330	6,352	Recoverable.	18,838	25,219	5,249	15.7	2,796	203	2,544
Old tailings shipped to smelters ²	xxx	121	408	Gross.....	21,605	32,459	5,469	15.7	2,797	xxx	xxx
Other ore shipments, including to ore buyers.....	xxx	2	13	Recoverable.	2,106	15,036	224	1.7	236	(²)	(²)
Lead concentrates.....	468	470	75,465	Gross.....	33	183	...	...	1	(²)	(²)
Zinc concentrates.....	872	862	54,549	Recoverable ³	40	299	...	...	1	xxx	xxx
				....do.....	589,817	18,938	8,377	63.9	9,655	1,961	459,280
					19,792	821,105	4,220	14.8	3,009		
Secondary Products and Services											
Copper concentrates and precipitates..	11	11	1,294	....do.....	290	154	4,840	5.2	110	xxx	5450
Gold concentrates and bullion.....	11	11	520	....do.....	268	518	...	15.8	87		
Manganese concentrates and tungsten ores and concentrates.....	13	13	304	.....	xxx	xxx	xxx	xxx	xxx	xxx	612
Crushed and broken limestone.....	xxx	1,069	580	.....	xxx	xxx	xxx	xxx	xxx		
Pyrites, barite, and sand.....	xxx	xxx	230	.....	xxx	xxx	xxx	xxx	xxx	612	120
Electric energy generated and sold....	xxx	62	22	.....	xxx	xxx	xxx	xxx	xxx		
Receipts for services performed for others:											
Hauling, stripping, shaft sinking, pumping, shop work, etc.....	xxx	xxx	395	.....	xxx	xxx	xxx	xxx	xxx	xxx	257
Milling ore on a custom basis.....	xxx	xxx	7872	.....	xxx	xxx	xxx	xxx	xxx	xxx	7225
ALL MINERAL INDUSTRIES											
Lead concentrates.....	470	472	75,793	Recoverable ³	592,814	19,011	8,389	64.0	9,662	(NA)	(NA)
Zinc concentrates.....	900	890	56,051	....do.....	19,966	849,924	4,501	14.9	3,148	(NA)	(NA)
NORTHEAST AND EAST NORTH CENTRAL (NEW YORK, NEW JERSEY, ILLINOIS, AND WISCONSIN)											
LEAD AND ZINC ORES INDUSTRIES											
All products and services, total..	xxx	xxx	17,144	Recoverable.	8,797	229,822	...	...	(D)	xxx	(⁸)
Primary Products											
Crude ore mined (all from underground operations).....	1,840	xxx	xxx	Gross.....	11,456	274,216	...	...	(D)	(⁸)	xxx
Milling ores ¹	xxx	756	2,118	....do.....	6,308	54,153	...	...	...	(⁸)	(⁸)
Direct-smelting ores and old tailings shipped to smelters.....	xxx	(D)	914,876	Recoverable ³	8,797	229,822	...	...	(D)	(⁸)	(⁸)
Lead and zinc concentrates.....	268	271									
Secondary Products and Services											
Other products.....	xxx	xxx	150	.....	xxx	xxx	xxx	xxx	xxx	xxx	(⁸)
See footnotes at end of table.											

See footnotes at end of table.

Table 5A.--PRODUCTS OF THE LEAD AND ZINC ORES INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES, 1954 AND 1939, AND LEAD AND ZINC CONCENTRATES PRODUCED IN ALL MINERAL INDUSTRIES, 1954--Continued

(For explanation of column captions, see INTRODUCTION)

Item	1954									1939 production	
	Production (1,000 short tons)	Shipments and inter-plant transfers		Quantities of metals contained							
		Quantity (1,000 short tons)	Value f.o.b. mine or mill (\$1,000)	Basis	Lead (1,000 pounds)	Zinc (1,000 pounds)	Copper (1,000 pounds)	Gold (1,000 fine ounces)	Silver (1,000 fine ounces)	Quantity (1,000 short tons)	Value f.o.b. mine or mill (\$1,000)
NORTHEAST AND EAST NORTH CENTRAL (NEW YORK, NEW JERSEY, ILLINOIS, AND WISCONSIN)--Continued											
ALL MINERAL INDUSTRIES											
Lead concentrates.....	8	8	1,300	Recoverable ³	11,429	73	...	...	(D)	(NA)	(NA)
Zinc concentrates.....	271	274	12,623	....do.....	20	203,773	...	...	(D)	(NA)	(NA)
WEST NORTH CENTRAL (MISSOURI AND KANSAS)											
LEAD AND ZINC ORES INDUSTRIES											
All products and services, total..	xxx	xxx	34,213	Recoverable.	252,748	23,958	3,850	...	353	xxx	18,181
Primary Products											
Crude ore mined, total.....	7,671	xxx	xxx	Gross.....	262,833	69,819	5,125	...	403	7,209	xxx
From underground operations.....	7,385	xxx	xxx	....do.....	255,114	66,212	5,125	...	403	(NA)	xxx
From open-pit operations.....	286	xxx	xxx	....do.....	7,719	3,607	...	...	...	(NA)	xxx
Milling ores ¹	xxx	753	2,186	....do.....	9,530	39,867	...	...	...	1,011	1,336
Direct-smelting ores.....	xxx	9	53	Recoverable.	129	278	...	...	...	...	...
Lead concentrates.....	183	183	29,848	Gross.....	158	333	...	...	...	xxx	xxx
Zinc concentrates.....	22	22	1,696	Recoverable ³	252,608	...	1,891	...	350	322	416,779
				....do.....	11	23,680	...	...	...
Secondary Products and Services											
Copper concentrates.....	4	4	425	....do.....	...	...	1,959	...	3	xxx	566
Other products and electric energy generated and sold.....	xxx	xxx	...	.....	xxx	xxx	xxx	xxx	xxx		
Receipts for services:											
Hauling, stripping, shaft sinking, pumping, shop work, etc.....	xxx	xxx	5	.....	xxx	xxx	xxx	xxx	xxx	xxx	(NA)
Milling ore on a custom basis.....	xxx	xxx	740	.....	xxx	xxx	xxx	xxx	xxx		
ALL MINERAL INDUSTRIES											
Lead concentrates.....	183	183	29,852	Recoverable ³	252,680	...	1,891	...	350	(NA)	(NA)
Zinc concentrates.....	22	22	1,696	....do.....	11	23,680	...	...	...	(NA)	(NA)
SOUTH (VIRGINIA, KENTUCKY, TENNESSEE, AND OKLAHOMA)											
LEAD AND ZINC ORES INDUSTRIES											
All products and services, total..	xxx	xxx	22,825	Recoverable.	42,121	197,858	...	...	(D)	xxx	823,953
Primary Products											
Crude ore mined, total.....	4,023	xxx	xxx	Gross.....	42,735	219,309	...	...	(D)	86,315	xxx
From underground operations.....	4,022	xxx	xxx	....do.....	42,727	219,222	...	...	(D)	(NA)	xxx
From open-pit operations.....	1	xxx	xxx	....do.....	8	87	...	...	...	(NA)	...
Milling ores, total ¹	xxx	2,221	5,868	....do.....	29,082	106,417	...	...	...	82,607	84,017
Sold or transferred to other mills, except for treatment on a custom basis.....	xxx	1,472	3,329	....do.....	15,201	62,130	...	...	...	(NA)	(NA)
Shipped to other mills for treatment on a custom basis.....	xxx	749	2,539	....do.....	13,881	44,287	...	...	...	(NA)	(NA)
Direct-smelting ores ⁹	xxx	(D)	16,387	Recoverable ³	942,121	9197,858	{	{	{	8 108	(11)
Lead and zinc concentrates.....	205	198									
									(D)	8980	4 819,374

See footnotes at end of table.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 5A.--PRODUCTS OF THE LEAD AND ZINC ORES INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES, 1954 AND 1939,
AND LEAD AND ZINC CONCENTRATES PRODUCED IN ALL MINERAL INDUSTRIES, 1954--Continued

(For explanation of column captions, see INTRODUCTION)

Item	1954									1939 production		
	Production	Shipments and inter-plant transfers		Quantities of metals contained								
		(1,000 short tons)	Quantity (1,000 short tons)	Value f.o.b. mine or mill (\$1,000)	Basis	Lead (1,000 pounds)	Zinc (1,000 pounds)	Copper (1,000 pounds)	Gold (1,000 fine ounces)	Silver (1,000 fine ounces)	Quantity (1,000 short tons)	Value f.o.b. mine or mill (\$1,000)
SOUTH (VIRGINIA, KENTUCKY, TENNESSEE, AND OKLAHOMA)--Continued												
Secondary Products and Services												
Crushed and broken limestone.....	xxx	1,023	570	xxx	xxx	xxx	xxx	xxx	}	xxx	11562
Electric energy generated and sold....	xxx	...	...	.....	xxx	xxx	xxx	xxx	xxx		
ALL MINERAL INDUSTRIES												
Lead concentrates.....	26	27	4,488	Recoverable ³	42,093	...	...	...	(D)	(NA)	(NA)
Zinc concentrates.....	187	179	12,152	....do.....	...	204,213	...	...	...	(NA)	(NA)
MOUNTAIN												
LEAD AND ZINC ORES INDUSTRIES												
All products and services, total..	xxx	xxx	96,783	Recoverable.	302,213	380,624	18,986	116.8	15,239	xxx	1230,514	
Primary Products												
Crude ore mined.....	3,971	xxx	xxx	Gross.....	330,840	443,670	23,748	154.2	16,841	122,794	xxx	
Milling ores, total ¹	xxx	1,601	25,642	....do.....	129,444	198,470	8,839	67.1	6,747	12568	124,644
Sold or transferred to other mills, except for treatment on a custom basis.....	xxx	1,296	17,569	....do.....	93,915	169,595	6,899	28.3	4,989	(NA)	(NA)
Shipped to other mills for treatment on a custom basis.....	xxx	305	8,073	....do.....	35,529	28,875	1,940	38.8	1,758	(NA)	(NA)
Direct-smelting ores ⁹	xxx	210	4,212	Recoverable.	16,422	1,567	5,240	15.6	2,695	10 12195	122,743	
Old tailings shipped to smelters ²	xxx	51	236	Gross.....	18,760	1,865	5,459	15.6	2,696			
Lead concentrates.....	237	237	37,839	Recoverable.	2,058	293	224	1.7	234	(2)	(2)	
Zinc concentrates.....	367	370	26,661	Recoverable ³	264,296	16,855	6,451	63.8	9,138			
				....do.....	18,879	361,237	4,190	14.7	2,978	12659 4 1223,127	
Secondary Products and Services												
Copper concentrates and precipitates..	7	7	869	Recoverable ³	290	154	2,881	5.2	107	}		
Gold concentrates and bullion.....	11	11	520	....do.....	268	518	...	15.8	87		
Manganese concentrates and tungsten ores and concentrates.....	13	13	304	.....	xxx	xxx	xxx	xxx	xxx	}	
Barite, sand, and electric energy generated and sold.....	xxx	xxx	110	.....	xxx	xxx	xxx	xxx	xxx		
Receipts for services:										}	xxx	(11)
Hauling, stripping, shaft sinking, pumping, shop work, etc.....	xxx	xxx	390	.....	xxx	xxx	xxx	xxx	xxx		
Milling ore on a custom basis.....	xxx	xxx	7764	.....	xxx	xxx	xxx	xxx	xxx		
ALL MINERAL INDUSTRIES												
Lead concentrates.....	237	237	37,853	Recoverable ³	264,434	16,855	6,463	63.9	9,144	(NA)	(NA)	
Zinc concentrates.....	378	381	27,204	....do.....	19,033	371,549	4,471	14.8	3,117	(NA)	(NA)
MONTANA												
LEAD AND ZINC ORES INDUSTRIES												
All products and services, total..	xxx	xxx	23,458	Recoverable.	27,507	108,134	4,095	12.1	3,020	xxx	340	
Primary Products												
Crude ore mined, total.....	910	xxx	xxx	Gross.....	27,102	108,271	5,050	15.6	3,274	56	xxx	
From underground operations.....	904	xxx	xxx	....do.....	26,731	108,104	5,041	15.2	3,233	(NA)	xxx
From open-pit operations.....	6	xxx	xxx	....do.....	371	167	9	0.4	41	(NA)	xxx

See footnotes at end of table.

Table 5A.--PRODUCTS OF THE LEAD AND ZINC ORES INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES, 1954 AND 1939,
AND LEAD AND ZINC CONCENTRATES PRODUCED IN ALL MINERAL INDUSTRIES, 1954--Continued

(For explanation of column captions, see INTRODUCTION)

Item	1954									1939 production	
	Production	Shipments and inter-plant transfers		Quantities of metals contained							
		(1,000 short tons)	Quantity (1,000 short tons)	Value f.o.b. mine or mill (\$1,000)	Basis	Lead (1,000 pounds)	Zinc (1,000 pounds)	Copper (1,000 pounds)	Gold (1,000 fine ounces)	Silver (1,000 fine ounces)	Quantity (1,000 short tons)	Value f.o.b. mine or mill ($1,000)
MONTANA--Continued											
LEAD AND ZINC ORES INDUSTRIES--Continued											
Primary Products--Continued											
Milling ores ¹	xxx	885	9,667	Gross.....	22,448	106,982	5,023	14.1	3,147	...	...
Direct-smelting ores and old tailings shipped to smelters ²	xxx	22	467	{Recoverable.	3,286	265	158	1.9	195	6	123
Lead and zinc concentrates.....	121	121	13,322	{Gross.....	3,454	321	175	1.9	195	xxx	xxx
				Recoverable ³	24,221	107,869	3,937	10.2	2,825	6	217
Secondary Products and Services											
Other products and services.....	xxx	xxx	2	.....	xxx	xxx	xxx	xxx	xxx	xxx	...
ALL MINERAL INDUSTRIES											
Lead concentrates.....	17	17	2,993	Recoverable ³	17,036	2,303	1,657	3.1	880	(NA)	(NA)
Zinc concentrates.....	107	107	10,515	....do.....	7,337	107,463	2,280	7.2	2,077	(NA)	(NA)
IDAHO											
LEAD AND ZINC ORES INDUSTRIES											
All products and services, total...	xxx	xxx	24,768	Recoverable.	126,084	100,745	760	1.9	4,726	xxx	12,719
Primary Products											
Crude ore mined, total.....	1,250	xxx	xxx	Gross.....	134,825	113,280	829	5.6	4,914	1,349	xxx
From underground operations.....	1,249	xxx	xxx	....do.....	134,711	113,244	828	5.6	4,912	(NA)	xxx
From open-pit operations.....	1	xxx	xxx	....do.....	114	36	1	...	2	(NA)	xxx
Milling ores ¹	xxx	133	2,484	....do.....	12,798	11,933	135	0.3	664	113	1,213
Direct-smelting ores and old tailings shipped to smelters ²	xxx	8	230	{Recoverable.	1,431	231	43	0.1	48	54	1,167
Lead concentrates.....	90	90	16,352	{Gross.....	1,510	305	54	0.1	49	xxx	xxx
Zinc concentrates.....	90	93	5,507	Recoverable ³	119,700	8,934	681	1.0	4,281	199	410,160
				....do.....	4,953	91,580	36	0.8	397		
Secondary Products and Services											
Other products and electric energy generated and sold.....	xxx	xxx	...	.....	xxx	xxx	xxx	xxx	xxx	xxx	5179
Receipts for services:											
Hauling, stripping, shaft sinking, pumping, shop work, etc.....	xxx	xxx	195	.....	xxx	xxx	xxx	xxx	xxx		
Milling ore on a custom basis.....	xxx	xxx	7120	.....	xxx	xxx	xxx	xxx	xxx	xxx	(NA)
All mineral industries											
Lead concentrates.....	90	90	16,357	Recoverable ³	119,715	8,934	682	1.1	4,282	(NA)	(NA)
Zinc concentrates.....	90	93	5,507	....do.....	4,953	91,580	36	0.8	397	(NA)	(NA)
UTAH											
LEAD AND ZINC ORES INDUSTRIES											
All products and services, total...	xxx	xxx	28,702	Recoverable.	91,026	68,082	4,218	38.6	3,039	xxx	(12)
Primary products											
Crude ore mined.....	626	xxx	xxx	Gross.....	100,663	84,482	5,327	50.3	3,367	(12)	xxx
Milling ores ¹	xxx	518	12,349	....do.....	88,167	71,683	3,547	46.2	2,743	(12)	(12)
Direct-smelting ores and old tailings shipped to smelters ²	xxx	106	1,173	Recoverable.	6,079	66	711	3.4	494	(12)	(12)
Lead and zinc concentrates.....				Gross.....	7,675	118	765	3.4	494	xxx	xxx
Secondary Products and Services											
Copper precipitates and gold concentrates.....	151	151	14,901	Recoverable ³	84,947	68,016	3,507	35.2	2,545	(12)	(12)
Other products and services.....		xxx	xxx	279	.....	xxx	xxx	xxx	xxx	xxx	(12)

See footnotes at end of table.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 5A.--PRODUCTS OF THE LEAD AND ZINC ORES INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES, 1954 AND 1939,
AND LEAD AND ZINC CONCENTRATES PRODUCED IN ALL MINERAL INDUSTRIES, 1954--Continued

(For explanation of column captions, see INTRODUCTION)

Item	1954									1939 production	
	Production (1,000 short tons)	Shipments and inter-plant transfers		Quantities of metals contained							
		Quantity (1,000 short tons)	Value f.o.b. mine or mill (\$1,000)	Basis	Lead (1,000 pounds)	Zinc (1,000 pounds)	Copper (1,000 pounds)	Gold (1,000 fine ounces)	Silver (1,000 fine ounces)	Quantity (1,000 short tons)	Value f.o.b. mine or mill (\$1,000)
UTAH--Continued											
ALL MINERAL INDUSTRIES											
Lead concentrates.....	76	76	10,642	Recoverable ³	80,216	2,559	2,307	27.4	2,067	(NA)	(NA)
Zinc concentrates.....	64	64	4,163	....do.....	4,462	64,939	1,151	3.8	424	(NA)	(NA)
COLORADO, NEW MEXICO, ARIZONA, AND NEVADA											
LEAD AND ZINC ORES INDUSTRIES											
All products and services, total....	xxx	xxx	19,855	Recoverable.	57,596	103,663	9,913	64.2	4,454	xxx	¹² 17,455
Primary Products											
Crude ore mined, total.....	1,185	xxx	xxx	Gross.....	68,250	137,637	12,542	82.7	5,286	¹² 1,389	xxx
From underground operations.....	1,130	xxx	xxx	....do.....	65,850	137,370	12,539	82.4	5,237	(NA)	xxx
From open-pit operations.....	55	xxx	xxx	....do.....	2,400	267	3	0.3	49	(NA)	xxx
Milling ores, total ¹	xxx	65	1,142	....do.....	6,031	7,872	134	6.5	193	¹² 455	¹² 3,431
Sold or transferred to other mills, except for treatment on a custom basis.....	xxx	1	31	....do.....	182	133	13	0.2	5	(NA)	(NA)
Shipped to other mills for treatment on a custom basis.....	xxx	64	1,111	....do.....	5,849	7,739	121	6.3	188	(NA)	(NA)
Direct-smelting ores and old tailings shipped to smelters ^{2 9}	xxx	125	2,578	{ Recoverable. Gross.....	7,684 8,435	1,298 1,444	4,552 4,712	11.9 11.9	2,192 2,192	¹⁰ ¹² 135 xxx	¹¹ ¹² 1,274 xxx
Lead and zinc concentrates.....											
Secondary Products and Services	170	170	15,807	Recoverable ³	49,912	102,365	5,361	52.3	2,262	¹² 454	⁴ ¹² 12,750
Copper concentrates and gold bullion.....											
Electric energy generated and sold.....	xxx	...	...	.....	xxx	xxx	xxx	xxx	xxx	xxx	(11)
Other products and services.....	xxx	xxx	328	.....	xxx	xxx	xxx	xxx	xxx		
ALL MINERAL INDUSTRIES											
Lead concentrates.....	54	54	7,861	Recoverable ³	47,467	3,059	1,817	32.3	1,915	(NA)	(NA)
Zinc concentrates.....	117	117	7,019	....do.....	2,281	107,567	1,004	3.0	219	(NA)	(NA)
PACIFIC (WASHINGTON AND CALIFORNIA)											
LEAD AND ZINC ORES INDUSTRIES											
All products and services, total....	xxx	xxx	4,982	Recoverable.	25,265	48,891	74	0.3	266	xxx	(¹²)
Primary Products											
Crude ore mined.....	1,021	xxx	xxx	Gross.....	26,582	54,574	76	0.3	284	(¹²)	xxx
Milling ores ¹	xxx	(¹³)	1	....do.....	2	7	...	...	...	(¹²)	(¹²)
Direct-smelting ores and old tailings shipped to smelters ²	xxx	8	333	{ Recoverable. Gross.....	2,185 2,575	371 475	9 10	0.1 0.1	104 104	(¹²) xxx	(¹²) xxx

See footnotes at end of table.

Table 5A.--PRODUCTS OF THE LEAD AND ZINC ORES INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES, 1954 AND 1939, AND LEAD AND ZINC CONCENTRATES PRODUCED IN ALL MINERAL INDUSTRIES, 1954--Continued

(For explanation of column captions, see INTRODUCTION)

Item	1954									1939 production	
	Production (1,000 short tons)	Shipments and inter-plant transfers		Quantities of metals contained							
		Quantity (1,000 short tons)	Value f.o.b. mine or mill (\$1,000)	Basis	Lead (1,000 pounds)	Zinc (1,000 pounds)	Copper (1,000 pounds)	Gold (1,000 fine ounces)	Silver (1,000 fine ounces)	Quantity (1,000 short tons)	Value f.o.b. mine or mill (\$1,000)
PACIFIC (WASHINGTON AND CALIFORNIA)-- Continued											
Primary Products--Continued											
Lead concentrates.....	16	17	2,300	Recoverable ³	22,178	2,083	35	0.1	} 162	(12)	(12)
Zinc concentrates.....	42	34	2,346	....do.....	902	46,437	30	0.1			
Secondary Products and Services											
Other products and services.....	xxx	xxx	2	.....	xxx	xxx	xxx	xxx	xxx	xxx	(12)
ALL MINERAL INDUSTRIES											
Lead concentrates.....	16	17	2,300	Recoverable ³	22,178	2,083	35	0.1	} 162	(NA)	(NA)
Zinc concentrates.....	42	34	2,376	....do.....	902	46,709	30	0.1			

xxx Not applicable.

D Withheld to avoid approximately disclosing figures for individual companies.

NA Not available.

¹Statistics for both 1954 and 1939 represent shipments. Figures shown may include old tailings; separate figures on any shipments of old tailings to other mills were not obtained for either year.²Information on shipments of old tailings to smelters and of shipments to ore buyers, if any, was not separately obtained for 1939.³Recoverable content of concentrates produced. See Table 1, footnote 10.⁴Revised for approximate comparability with 1954 by inclusion of the value of milling ores shipped, the value added by milling purchased ores, and receipts for custom milling. See Table 1, footnote 11.⁵Represents miscellaneous secondary products not identified by type in 1939 publications.⁶Millions of kilowatt-hours.⁷Excluded from the total value of products and services in order to avoid duplication. See footnote 4 above.⁸Statistics for the Northeast and East North Central are combined with those for the South.⁹For 1954, includes shipments to ore buyers.¹⁰Quantity of direct-smelting ores produced in Colorado was combined in 1939 with production in New York, New Jersey, Tennessee, and Virginia and is included in the total shown above for the latter States.¹¹Value of direct-smelting ores is combined with value of other products and services. Also see footnote 8 for the South and footnote 12 for the Mountain States.¹²Statistics for Utah and Washington are combined with those for Colorado, New Mexico, Arizona, and Nevada. There were no lead and zinc ores establishments in California in 1939.¹³Less than 500 tons.

Table 5B.—RECOVERABLE LEAD AND ZINC CONTENT OF ORES, OLD TAILINGS,

(Thousands)

Year, geographic division, State, and industry		Recoverable lead			
		Total, all products	Ores and old tailings		
			Total	Direct- smelting ores	Old tailings shipped to smelters
1954 ¹					
1	United States, all mineral industries.....	643,530	22,384	20,277	2,107
2	Lead and zinc ores industries.....	631,144	20,977	² 18,871	2,106
3	Valued chiefly for lead.....	513,890	19,440	(D)	(D)
4	Valued chiefly for zinc.....	117,254	1,537	(D)	(D)
5	Northeast and East North Central, all mineral industries.....	11,604	155	(D)	(D)
6	Lead and zinc ores industries.....	8,797	155	(D)	(D)
7	West North Central, all mineral industries.....	252,820	129	129	...
8	Lead and zinc ores industries.....	252,748	129	129	...
9	South, all mineral industries.....	42,130	28	28	...
10	Lead and zinc ores industries.....	42,121	28	² 28	...
11	Mountain, all mineral industries.....	311,615	19,881	17,822	2,059
12	Lead and zinc ores industries.....	302,213	18,480	² 16,422	2,058
13	Valued chiefly for lead.....	241,172	17,099	(D)	(D)
14	Valued chiefly for zinc.....	61,041	1,381	(D)	(D)
15	Montana, all mineral industries.....	28,315	3,458	(D)	(D)
16	Idaho, all mineral industries.....	133,310	1,437	(D)	(D)
17	Utah, all mineral industries.....	92,115	7,169	(D)	(D)
18	Colorado, New Mexico, Arizona, and Nevada, all mineral industries.....	57,875	² 7,817	(D)	(D)
19	Pacific, all mineral industries.....	25,361	2,191	(D)	(D)
20	Lead and zinc ores industries.....	25,265	2,185	(D)	(D)
1939 ¹					
21	United States, all mineral industries.....	803,455	³ 67,720	67,720	(³)
22	Lead and zinc ores industries.....	736,959	³ 37,124	37,124	(³)
23	Lead ores industry.....	603,448	³ 32,444	32,444	(³)
24	Zinc ores industry.....	133,511	³ 4,680	4,680	(³)
25	Northeast, North Central, and South, all mineral industries.....	349,860	³ 48	48	(³)
26	Lead and zinc ores industries.....	348,506	³ 48	48	(³)
27	Lead ores industry.....	306,583	...	...	(³)
28	Zinc ores industry.....	41,923	³ 48	48	(³)
29	Mountain and Pacific, all mineral industries.....	453,595	³ 67,672	67,672	(³)
30	Lead and zinc ores industries.....	388,453	³ 37,076	37,076	(³)
31	Lead ores industry.....	296,865	³ 32,444	32,444	(³)
32	Zinc ores industry.....	91,588	³ 4,632	4,632	(³)

D Withheld to avoid approximately disclosing figures for individual companies.

NA Not available.

¹See table 1, footnote 10.²Includes other ore shipments, such as to ore buyers.³Separate information on shipments of old tailings to smelters was not obtained in 1939.⁴Figures for Colorado are included with those for "Northeast, North Central, and South."

AND CONCENTRATES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954 AND 1939
of pounds)

Recoverable lead—Continued				Recoverable zinc								
Concentrates				Total, all products	Ores and old tailings			Concentrates				
Total	Lead concen- trates	Zinc concen- trates	Copper, gold, and silver concen- trates		Total	Direct- smelting ores	Old tailings shipped to smelters	Total	Zinc concen- trates	Lead concen- trates	Copper, gold, and silver concen- trates	
621,146	592,814	19,966	8,366	911,479	41,477	26,441	15,036	870,002	849,924	19,011	1,067	1
610,167	589,817	19,792	558	881,153	40,438	25,402	15,036	840,715	821,105	18,938	672	2
494,450	485,950	(D)	(D)	181,471	2,138	1,872	266	179,333	168,280	(D)	(D)	3
115,717	103,867	(D)	(D)	699,682	38,300	² 23,530	14,770	661,382	652,825	(D)	(D)	4
11,449	11,429	20	...	240,792	36,946	(D)	(D)	203,846	203,773	73	...	5
8,642	8,642	...	...	229,822	36,946	(D)	(D)	192,876	192,876	...	...	6
252,691	252,680	11	...	23,958	278	278	...	23,680	23,680	...	...	7
252,619	252,608	11	...	23,958	278	278	...	23,680	23,680	...	...	8
42,102	42,093	...	9	205,263	1,050	1,050	...	204,213	204,213	...	...	9
42,093	42,093	...	...	197,858	983	² 983	...	196,875	196,875	...	...	10
291,734	264,434	19,033	8,267	392,221	2,809	2,516	293	389,412	371,549	16,855	1,008	11
283,733	264,296	18,879	558	380,624	1,860	² 1,567	293	378,764	361,237	16,855	672	12
224,073	216,087	(D)	(D)	157,495	1,777	(D)	(D)	155,718	144,924	(D)	(D)	13
59,660	48,209	(D)	(D)	223,129	83	(D)	(D)	223,046	216,313	(D)	(D)	14
24,857	17,036	7,337	484	110,215	379	(D)	(D)	109,836	107,463	(D)	(D)	15
131,873	119,715	4,953	7,205	100,763	231	(D)	(D)	100,532	91,580	8,934	18	16
84,946	80,216	4,462	268	68,082	66	(D)	(D)	68,016	64,939	(D)	(D)	17
50,058	47,467	2,281	310	113,161	² 2,133	(D)	(D)	111,028	107,567	3,059	402	18
23,170	22,178	902	90	49,245	394	(D)	(D)	48,851	46,709	2,083	59	19
23,080	22,178	902	...	48,891	371	(D)	(D)	48,520	46,437	2,083	...	20
735,735	(NA)	(NA)	(NA)	1,138,616	³ 4,814	4,814	(³)	1,133,802	(NA)	(NA)	(NA)	21
699,835	(NA)	(NA)	(NA)	1,084,560	³ 4,519	4,519	(³)	1,080,041	(NA)	(NA)	(NA)	22
571,004	(NA)	(NA)	(NA)	134,268	³ 208	208	(³)	134,060	(NA)	(NA)	(NA)	23
128,831	(NA)	(NA)	(NA)	950,292	³ 4,311	4,311	(³)	945,981	(NA)	(NA)	(NA)	24
349,812	(NA)	(NA)	(NA)	825,153	³ 2,552	2,552	(³)	822,601	(NA)	(NA)	(NA)	25
348,458	(NA)	(NA)	(NA)	822,102	³ 2,477	2,477	(³)	819,625	(NA)	(NA)	(NA)	26
306,583	(NA)	(NA)	(NA)	148	...	...	(³)	148	(NA)	(NA)	(NA)	27
41,875	(NA)	(NA)	(NA)	821,954	³ 2,477	⁴ 2,477	(³)	819,477	(NA)	(NA)	(NA)	28
385,923	(NA)	(NA)	(NA)	313,463	³ 2,262	2,262	(³)	311,201	(NA)	(NA)	(NA)	29
351,377	(NA)	(NA)	(NA)	262,458	³ 2,042	2,042	(³)	260,416	(NA)	(NA)	(NA)	30
264,421	(NA)	(NA)	(NA)	134,120	³ 208	208	(³)	133,912	(NA)	(NA)	(NA)	31
86,956	(NA)	(NA)	(NA)	128,338	³ 1,834	⁴ 1,834	(³)	126,504	(NA)	(NA)	(NA)	32

Table 6.—GENERAL STATISTICS FOR LEAD AND ZINC ORES ESTABLISHMENTS CLASSIFIED BY EMPLOYMENT SIZE, BY GEOGRAPHIC DIVISIONS AND STATES: 1954

(For explanation of column captions, see INTRODUCTION)

Geographic division, State, and number of employees in establishment	Number of estab- lish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
United States, all lead and zinc ores, total.....	520	175,947	107,409	13,592	2,974	27,554	53,676	17,687	11,072
0.....	192	612	464	...	...	8	11	...	2,007
1-4.....	158	1,671	1,034	253	57	459	773	201	1,230
5-9.....	41	3,008	1,435	238	34	496	755	145	397
10-19.....	39	8,035	6,180	539	68	1,185	2,172	336	735
20-49.....	47	16,413	10,815	1,333	141	2,928	5,494	759	2,559
50-99.....	15	22,522	9,232	967	152	2,149	4,330	851	1,019
100-249.....	13	39,235	13,606	1,760	347	3,870	7,175	1,889	1,376
250-499.....	10	29,530	22,285	2,885	438	5,624	10,961	2,420	740
500-999.....	3	54,921	42,358	5,617	1,737	10,835	22,005	11,086	1,009
1,000-2,499.....	1								
2,500 and over.....	1								
Ores valued chiefly for lead, total	343	94,874	62,713	7,156	1,564	14,654	29,549	9,453	4,883
0.....	143	507	400	...	...	6	9	...	253
1-4.....	113	1,080	1,127	181	39	322	560	122	787
5-9.....	27	2,346	892	153	20	317	503	80	210
10-19.....	19	5,420	4,717	315	33	663	1,324	173	493
20-49.....	18	5,157	4,256	492	50	1,036	2,070	267	1,215
50-99.....	11	19,339	7,091	715	123	1,591	3,179	669	892
100-249.....	6	10,926	5,949	802	186	1,666	3,427	1,077	383
250-499.....	3	50,099	38,281	4,498	1,113	9,053	18,477	17,065	650
500-999.....	2								
2,500 and over.....	1								
Ores valued chiefly for zinc, total	177	81,073	44,696	6,436	1,410	12,900	24,127	8,234	6,189
0.....	49	105	64	...	...	2	2	...	1,754
1-4.....	45	591	(2)	72	18	137	213	79	443
5-9.....	14	662	543	85	14	179	252	65	187
10-19.....	20	2,615	1,463	224	35	522	848	163	242
20-49.....	29	11,256	6,559	841	91	1,892	3,424	492	1,344
50-99.....	4	3,183	2,141	252	29	558	1,151	182	127
100-249.....	7	28,309	7,657	958	161	2,204	3,748	812	993
250-499.....	7	34,352	26,362	4,004	1,062	7,406	14,489	16,441	1,099
500-999.....	1								
1,000-2,499.....	1								
Northeast and East North Central, all lead and zinc ores, total.....	32	17,144	11,950	1,279	576	2,622	4,958	4,311	1,240
0.....	9	16	18	...	...	...	...	...	318
1-4.....	6	227	259	34	4	70	112	18	
5-9.....	3								
10-19.....	3								
20-49.....	5	721	149	34	3	67	109	14	206
50-99.....	5	3,628	1,400	117	23	236	466	160	
100-249.....	2	2,763	2,134	250	28	543	970	156	
250-499.....	1								638
500-999.....	3								
250-499.....	3	9,789	7,990	844	1518	1,706	3,301	13,963	
West North Central, all lead and zinc ores, total.....	40	34,213	24,880	3,108	717	6,222	12,271	3,955	843
0.....	6	17	12	...	...	...	...	...	...
1-4.....	11	63	40	14	1	22	27	1	10
5-9.....	6	362	215	31	5	60	74	19	2
10-19.....	5	392	292	46	12	125	173	42	32
20-49.....	7	1,992	1,561	215	11	480	849	47	30
50-99.....	1	31,387	22,760	2,802	1688	5,535	11,148	13,846	769
100-249.....	3								
2,500 and over.....	1								
South, all lead and zinc ores, total.....	92	22,825	10,908	2,061	315	4,317	6,949	1,551	3,400
0.....	32	108	71	...	...	2	2	...	1,510
1-4.....	19	177	(2)	32	5	74	95	19	375
5-9.....	8	530	422	54	1	126	168	7	34
10-19.....	10	1,651	1,091	129	4	299	417	11	3
20-49.....	17	4,175	3,302	502	30	1,165	2,021	130	1,099
50-99.....	1	16,184	6,270	1,344	1275	2,651	4,246	11,384	379
100-249.....	2								
250-499.....	2								
500-999.....	1	1,302	931	128	1	289	457	6	3
Ores valued chiefly for lead, total.....	22								
0.....	7	32	17	...	...	1	1	...	1
1-4.....	6	182	162	24	...	50	62	...	28
5-9.....	2								
10-19.....	5								
20-49.....	2	1,302	931	128	1	289	457	6	3

See footnotes at end of table.

Table 6.—GENERAL STATISTICS FOR LEAD AND ZINC ORES ESTABLISHMENTS CLASSIFIED BY EMPLOYMENT SIZE, BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued
(For explanation of column captions, see INTRODUCTION)

Geographic division, State, and number of employees in establishment	Number of estab- lish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
South—Continued									
Ores valued chiefly for zinc, total.....	70	21,309	9,798	1,909	314	3,977	6,429	1,545	3,368
0.....	25	76	54	...	...	1	1	...	1,509
1-4.....	13	525	12	62	6	150	201	26	381
5-9.....	6								
10-19.....	5	4,524	3,462	503	33	1,175	1,981	135	1,099
20-49.....	15								
50-99.....	1	16,184	6,270	1,344	1,275	2,651	4,246	1,384	379
100-249.....	2								
250-499.....	2								
500-999.....	1								
Mountain, all lead and zinc ores, total.....	321	96,783	56,713	6,836	1,287	13,755	28,152	7,355	5,328
0.....	127	432	344	...	...	5	8	...	347
1-4.....	111	1,068	933	179	40	310	551	132	779
5-9.....	23	1,960	565	123	25	243	405	105	184
10-19.....	21	5,271	4,648	330	49	694	1,473	269	666
20-49.....	15	4,351	3,595	406	49	829	1,700	258	1,207
50-99.....	10	18,558	6,476	650	97	1,455	2,924	531	721
100-249.....	6	23,286	7,562	739	206	1,646	3,224	1,079	971
250-499.....	5	16,146	12,193	1,533	146	3,092	6,194	869	92
500-999.....	2	25,711	20,397	2,876	1,675	5,481	11,673	14,112	361
1,000-2,499.....	1								
Ores valued chiefly for lead, total.....	280	59,536	36,666	4,039	829	8,486	17,209	4,837	3,896
0.....	117	426	347	...	...	4	7	...	246
1-4.....	97	824	898	155	31	267	472	92	744
5-9.....	20	1,857	487	108	20	213	360	80	172
10-19.....	14	4,660	4,229	248	33	521	1,126	173	490
20-49.....	15	4,351	3,595	406	49	829	1,700	258	1,207
50-99.....	9	23,198	7,928	907	168	2,061	4,129	912	689
100-249.....	3								
250-499.....	3	24,220	19,182	2,215	1,528	4,591	9,415	13,322	348
500-999.....	2								
Ores valued chiefly for zinc, total.....	41	37,247	20,047	2,797	458	5,269	10,943	2,518	1,432
0.....	10	6	(²)	...	...	1	1	...	101
1-4.....	14	244	35	24	9	43	79	40	35
5-9.....	3	103	78	15	5	30	45	25	12
10-19.....	7	611	419	82	16	173	347	96	176
50-99.....	1	18,646	6,110	482	135	1,040	2,019	698	1,003
100-249.....	3								
250-499.....	2	17,637	13,408	2,194	1,293	3,982	8,452	1,659	105
1,000-2,499.....	1								
Idaho, total.....	77	24,768	18,162	2,200	322	4,543	9,757	1,889	1,639
0.....	18	43	25	...	...	2	3	...	46
1-4.....	32	595	592	63	4	123	232	10	402
5-9.....	6	1,217	181	37	7	78	140	26	39
10-19.....	9	1,023	956	103	27	228	536	121	430
20-49.....	3	796	861	85	7	168	381	34	331
50-99.....	5	6,188	3,974	420	53	911	1,974	332	107
100-249.....	1								
250-499.....	2	14,906	11,573	1,492	1,224	3,033	6,491	1,366	284
500-999.....	1								
Colorado, total.....	68	12,822	10,075	1,079	166	2,217	4,273	779	1,268
0.....	26	70	69	...	...	2	2	...	51
1-4.....	22	85	60	40	10	63	98	46	124
5-9.....	9	301	252	51	3	98	149	6	94
10-19.....	1	2,542	2,015	165	18	331	679	96	426
20-49.....	5								
50-99.....	3	9,824	7,679	823	135	1,723	3,345	631	573
250-499.....	2								
Utah, total.....	37	28,702	13,512	1,334	352	2,857	5,543	2,200	291
0.....	12	57	23	...	...	...	...	...	5
1-4.....	13	50	52	19	6	33	50	12	60
5-9.....	4	4,091	3,295	159	21	354	724	111	48
10-19.....	2								
20-49.....	1	24,504	10,142	1,156	1,325	2,470	4,769	12,077	178
50-99.....	2								
100-249.....	1								
250-499.....	1								
500-999.....	1								

See footnotes at end of table.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 6.—GENERAL STATISTICS FOR LEAD AND ZINC ORES ESTABLISHMENTS CLASSIFIED BY EMPLOYMENT SIZE, BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued
(For explanation of column captions, see INTRODUCTION)

Geographic division, State, and number of employees in establishment	Number of estab- lish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
Mountain--Continued									
Nevada, total.....	37	1,156	1,018	205	41	380	808	259	701
0.....	19	136	99	...	...	1	3	...	125
1-4.....	12	128	111	24	2	33	75	4	74
10-19.....	3	892	808	181	39	346	730	255	502
20-49.....	2								
100-249.....	1								
Montana, New Mexico, and Arizona, total.....	102	29,335	13,946	2,018	406	3,758	7,771	2,228	1,429
0.....	52	126	128	...	...	...	...	...	120
1-4.....	32	210	118	33	18	58	96	60	119
5-9.....	4	532	427	87	14	180	311	94	162
10-19.....	6								
20-49.....	4								
100-249.....	3	27,732	13,025	1,815	1,359	3,345	7,022	12,003	958
1,000-2,499.....	1								
Pacific, all lead and zinc ores, total.....	35	4,982	2,958	308	79	638	1,346	515	261
0.....	18	39	19	...	...	1	1	...	75
1-4.....	10	292	283	24	10	50	96	45	
5-9.....	2								
20-49.....	3								
50-99.....	1	4,651	2,656	284	69	587	1,249	470	186
100-249.....	1								

¹Includes employees at all central offices in the lead and zinc ores industries located in the geographic division or State specified.²Value added was not computed for this group since the combined cost of supplies, crude ore and old tailings received for milling, fuel, purchased electric energy, contract work, and purchased machinery installed exceeded the sum of the value of shipments and capital expenditures. See INTRODUCTION, "Value Added in mining."

Table 7.—MONTHLY EMPLOYMENT IN THE LEAD AND ZINC ORES INDUSTRIES BY GEOGRAPHIC DIVISIONS AND STATES, AND BY TYPE OF OPERATION: 1954

Geographic division, State, and type of operation	Average employment for the year ¹	Number of employees by month											
		January	February	March	April	May	June	July	August	September	October	November	December
United States, total.....	16,566	17,603	17,220	16,779	16,528	16,429	16,620	16,774	16,587	15,217	15,586	16,685	16,578
Valued chiefly for lead.....	8,720	9,099	8,787	8,542	8,488	8,495	8,581	8,683	8,654	8,687	8,803	8,825	8,867
Valued chiefly for zinc.....	7,846	8,504	8,433	8,237	8,040	7,934	8,039	8,091	7,933	6,530	6,783	7,860	7,711
GEOGRAPHIC DIVISION AND STATE													
Northeast and East North Central, total...	1,855	1,857	1,848	1,844	1,842	1,856	1,899	1,945	1,957	1,938	1,771	1,750	1,726
Valued chiefly for zinc.....	1,741	1,745	1,736	1,732	1,730	1,744	1,785	1,828	1,840	1,821	1,655	1,634	1,610
Illinois.....	106	66	66	69	74	82	120	117	127	122	138	138	139
Other States.....	1,749	1,791	1,782	1,775	1,768	1,774	1,779	1,828	1,830	1,806	1,633	1,612	1,587
West North Central, total.....	3,825	3,870	3,869	3,856	3,780	3,782	3,809	3,825	3,803	3,836	3,834	3,814	3,820
Valued chiefly for lead.....	3,325	3,389	3,408	3,404	3,317	3,306	3,305	3,303	3,297	3,295	3,297	3,285	3,300
Valued chiefly for zinc.....	500	481	461	452	463	476	504	522	506	541	537	529	520
Missouri, total.....	3,451	3,585	3,590	3,584	3,491	3,471	3,392	3,386	3,382	3,380	3,385	3,377	3,380
Valued chiefly for lead.....	3,273	3,338	3,352	3,345	3,264	3,256	3,254	3,250	3,245	3,242	3,244	3,237	3,250
Valued chiefly for zinc.....	178	247	238	239	227	215	138	136	137	138	141	140	130
Kansas, total.....	374	285	279	272	289	311	417	439	421	456	449	437	440
Valued chiefly for lead.....	52	51	56	59	53	50	51	53	52	53	53	48	50
Valued chiefly for zinc.....	322	234	223	213	236	261	366	386	369	403	396	389	390
South, total.....	2,376	2,461	2,456	2,410	2,354	2,335	2,362	2,351	2,339	2,333	2,354	2,355	2,358
Valued chiefly for lead.....	153	109	105	137	152	155	159	160	163	162	164	165	156
Valued chiefly for zinc.....	2,223	2,352	2,351	2,273	2,202	2,180	2,203	2,191	2,176	2,171	2,190	2,190	2,202
Oklahoma, total.....	1,014	964	970	972	994	981	1,011	1,021	1,029	1,018	1,059	1,049	1,060
Valued chiefly for lead.....	150	108	104	136	151	155	156	157	162	159	164	165	156
Valued chiefly for zinc.....	864	856	866	836	843	826	855	864	867	859	895	884	904
Other States.....	1,362	1,497	1,486	1,438	1,360	1,354	1,351	1,330	1,310	1,315	1,295	1,306	1,298
Mountain, total.....	8,123	8,835	8,478	8,286	8,200	8,100	8,189	8,291	8,178	6,792	7,300	8,418	8,307
Valued chiefly for lead.....	4,868	5,050	4,732	4,642	4,688	4,703	4,787	4,887	4,867	4,899	5,007	5,027	5,045
Valued chiefly for zinc.....	3,255	3,785	3,746	3,644	3,512	3,397	3,402	3,404	3,311	1,893	2,293	3,391	3,262
Montana.....	1,918	2,451	2,431	2,339	2,245	2,143	2,090	2,011	1,943	517	937	2,000	1,875
Idaho, total.....	2,522	2,567	2,524	2,505	2,511	2,498	2,503	2,545	2,498	2,516	2,501	2,524	2,535
Valued chiefly for lead.....	1,955	1,932	1,894	1,892	1,935	1,936	1,938	1,975	1,964	1,985	1,972	1,997	1,992
Valued chiefly for zinc.....	567	635	630	613	576	562	565	570	534	531	529	527	543
Colorado.....	1,245	1,413	1,205	1,116	1,118	1,122	1,190	1,260	1,279	1,283	1,288	1,312	1,310
Utah.....	1,686	1,666	1,645	1,627	1,624	1,621	1,622	1,651	1,662	1,691	1,779	1,804	1,856
Nevada.....	246	267	222	230	232	242	263	285	269	241	244	242	215
New Mexico and Arizona.....	506	471	451	469	470	474	521	539	527	544	551	536	516
Pacific, total.....	387	580	569	383	352	356	361	362	310	318	327	348	367
Valued chiefly for lead.....	260	439	430	247	219	219	218	216	210	214	219	232	250
Valued chiefly for zinc.....	127	141	139	136	133	137	143	146	100	104	108	116	117
Washington.....	298	318	315	315	305	307	313	314	264	268	275	281	298
California.....	89	262	254	68	47	49	48	48	46	50	52	67	69
TYPE OF OPERATION													
Lead and Zinc Ores Industries													
Producing establishments, total ²	15,493	16,607	16,216	15,756	15,498	15,410	15,521	15,655	15,472	14,097	14,500	15,603	15,506
Open-pit mines and combination open-pit and underground mines ³	342	410	405	400	391	385	308	309	306	301	308	286	281
Underground mines ³	14,471	15,459	15,073	14,620	14,375	14,297	14,513	14,624	14,471	13,304	13,690	14,636	14,493
Mills only ⁴	680	738	738	736	732	728	700	722	695	492	502	681	732
Nonproducing establishments.....	352	275	283	302	314	303	383	392	388	393	364	360	350

See footnotes at end of table.

MINERAL INDUSTRIES--INDUSTRY STATISTICS

Table 7.--MONTHLY EMPLOYMENT IN THE LEAD AND ZINC ORES INDUSTRIES BY GEOGRAPHIC DIVISIONS AND STATES, AND BY TYPE OF OPERATION: 1954--Continued

Geographic division, State, and type of operation	Average employ- ment for the year ¹	Number of employees by month											
		January	February	March	April	May	June	July	August	Sep- tember	Oc- tober	No- vember	De- cember
TYPE OF OPERATION--Con.													
Ores valued chiefly for lead													
Producing establishments, total ²	8,195	8,641	8,318	8,049	7,975	7,989	8,036	8,116	8,083	8,121	8,263	8,299	8,348
Open-pit mines and combination open-pit and underground mines ³	258	264	262	259	256	259	260	262	262	257	264	242	241
Underground mines ³	7,818	8,244	7,940	7,681	7,610	7,617	7,652	7,738	7,708	7,749	7,878	7,943	7,962
Mills only ⁴	119	133	116	109	109	113	124	116	113	115	121	114	145
Nonproducing establishments.....	193	131	142	166	179	172	211	228	232	227	209	195	188
Ores valued chiefly for zinc													
Producing establishments, total ²	7,298	7,966	7,898	7,707	7,523	7,421	7,485	7,539	7,389	5,976	6,237	7,304	7,158
Open-pit mines and combination open-pit and underground mines ³	84	146	143	141	135	126	48	47	44	44	44	44	40
Underground mines ³	6,653	7,215	7,133	6,939	6,765	6,680	6,861	6,886	6,763	5,555	5,812	6,693	6,531
Mills only ⁴	561	605	622	627	623	615	576	606	582	377	381	567	587
Nonproducing establishments.....	159	144	141	136	135	131	172	164	156	166	155	165	162

¹Represents the sum of the average employment figures for the year as shown on the separate establishment reports. These are the averages shown in other tables of this report. Because of rounding, the sum of such average figures may differ slightly from an average of the January to December totals shown above.

²Excludes employees at central offices which were not classified by type of operation. See table 4, footnote 5.

³Both mines only and mines operated with associated mills.

⁴Includes one mill with a nonproducing mine.

Table 8.—SELECTED STATISTICS FOR PRODUCING LEAD AND ZINC ORES ESTABLISHMENTS, CLASSIFIED BY OUTPUT PER MAN-HOUR, BY GEOGRAPHIC DIVISION, AND BY TYPE OF OPERATION: 1954

(For explanation of column captions, see INTRODUCTION)

Type of operation, output per man-hour ¹ , and geographic division	Number of—					Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by produc- tion and develop- ment workers (1,000)	Wages and salaries		New capital expendi- tures (\$1,000)
	Estab- lish- ments	Mines			Produc- tion and develop- ment workers			All other employees ²	Produc- tion and develop- ment workers (\$1,000)		All other em- ployees ² (\$1,000)		
		Open- pit	Combina- tion open-pit and under- ground	Under- ground								Mills	
UNITED STATES													
Lead and zinc ores industries, total.....	385	36	6	318	118	175,947	107,293	13,319	2,174	27,012	52,608	11,878	6,406
Mines only, total ³ ..	277	29	4	244	10	38,813	31,055	3,908	458	7,877	15,297	2,689	1,106
Less than \$2.00..	10	1	...	9	...	204	160	52	1	117	191	6	24
\$2.00-\$2.99.....	11	...	...	11	1	1,106	900	184	10	417	679	39	22
\$3.00-\$3.99.....	14	...	...	14	1	4,145	3,328	528	41	1,227	2,175	354	112
\$4.00-\$4.99.....	14	1	...	13	...	11,530	8,942	1,573	228	2,838	6,007	1,349	120
\$5.00-\$5.99.....	12	...	...	12	1	9,399	7,418	831	96	1,733	3,306	541	76
\$6.00-\$6.99.....	8	...	...	8	...	1,127	949	81	17	178	329	93	48
\$7.00-\$7.99.....	3	...	...	3	...	1,937	1,522	107	7	232	477	32	3
\$8.00-\$9.99.....	3	...	...	3	...								
\$10.00-\$14.99....	5	...	...	5	...	1,249	1,015	46	9	106	226	25	6
\$15.00-\$19.99....	3	...	...	3	...	974	814	29	5	63	131	41	...
\$20.00 and over..	...	...	...	...	...	...	...	...	...	...	...	...	...
Unclassified ⁴	194	27	4	163	7	7,142	6,007	477	44	966	1,776	209	695
Mines with producing mills, total.....	82	6	2	74	82	99,171	71,487	8,847	1,600	17,932	35,146	8,632	4,422
Less than \$2.00..	2	...	...	2	2	1,654	687	443	49	813	1,397	226	183
\$2.00-\$2.99.....	3	...	...	3	3								
\$3.00-\$3.99.....	13	2	...	11	13	9,062	7,239	1,204	191	2,548	3,994	955	1,470
\$4.00-\$4.99.....	6	...	...	6	6	9,024	6,414	988	125	2,020	4,154	614	80
\$5.00-\$5.99.....	12	...	1	11	12	43,905	33,256	3,953	780	7,857	16,119	4,273	877
\$6.00-\$6.99.....	4	...	...	4	4	11,552	8,823	873	143	1,735	3,550	801	180
\$7.00-\$7.99.....	1	...	...	1	1								
\$8.00-\$9.99.....	3	...	...	3	3	9,949	8,222	453	84	1,012	2,154	535	220
\$10.00-\$14.99....	1	...	...	1	1								
\$15.00 and over..	...	...	...	...	...	...	...	...	...	...	...	...	...
Unclassified ⁴	37	4	1	32	37	14,025	6,846	933	228	1,947	3,778	1,228	1,412
Mills only, total ⁵ ..	26	1	...	...	26	37,963	4,751	564	116	1,203	2,165	557	878
Less than \$2.00..	...	...	...	...	...	...	...	...	...	...	...	...	...
\$2.00-\$2.99.....	1	...	...	...	1	316	61	27	...	38	53	...	2
\$3.00-\$5.99.....	...	...	...	...	...			
\$6.00-\$6.99.....	1	...	...	...	1	8,774	1,109	234	4	558	920	16	23
\$7.00-\$7.99.....	...	...	...	...	2								
\$8.00-\$9.99.....	2	...	...	...	2	17,467	2,013	225	97	438	895	455	785
\$10.00-\$14.99....	1	...	...	...	1								
\$15.00-\$19.99....	3	...	...	...	3	11,406	1,568	78	15	169	297	86	68
\$20.00 and over..	6	...	...	...	6								
Unclassified ⁴	12	1	...	...	12	...	...	...	...	...	...	...	...
Valued chiefly for lead, total.....	251	27	5	208	66	94,874	62,516	7,010	1,185	14,361	28,907	6,603	3,584
Mines only, total ³	191	22	4	165	6	20,630	17,010	1,735	176	3,630	6,960	1,074	767
Less than \$2.00.....	6	1	...	5	...	20	22	10	1	12	21	2	6
\$2.00-\$2.99.....	4	...	...	4	...	212	173	55	3	83	118	12	90
\$3.00-\$3.99.....	5	...	...	5	1	2,888	2,361	365	35	834	1,531	328	...
\$4.00-\$4.99.....	8	1	...	7	...	851	678	86	1	204	348	6	21
\$5.00-\$5.99.....	6	...	...	6	1	7,555	6,034	685	83	1,403	2,756	482	...
\$6.00-\$6.99.....	6	...	...	6	...	858	747	57	5	132	248	25	103
\$7.00-\$7.99.....	1	...	...	1	...								
\$8.00-\$9.99.....	3	...	...	3	...	1,827	1,565	96	9	200	446	29	...
\$10.00-\$14.99....	1	...	...	1	...								
\$15.00-\$19.99....	1	...	...	1	...	6,419	5,430	381	39	762	1,492	190	547
\$20.00 and over.....	...	...	...	...	...			
Unclassified ⁴	150	20	4	126	4	...	...	...	...	...	...	...	...
Mines with producing mills and mills only, total.....	60	5	1	43	60	74,244	45,506	5,275	1,009	10,731	21,947	5,529	2,817
Less than \$2.00.....	2	...	...	2	2	2,507	2,081	296	33	728	1,475	152	545
\$2.00-\$2.99.....	...	...	...	...	...			
\$3.00-\$3.99.....	3	1	...	2	3	43,308	32,740	3,901	766	7,752	15,866	4,183	771
\$4.00-\$4.99.....	2	...	...	2	2								
\$5.00-\$5.99.....	10	...	1	9	10	5,831	4,071	401	66	806	1,740	409	168
\$6.00-\$6.99.....	3	...	...	2	3								
\$7.00-\$7.99.....	1	...	...	1	1	1,178	939	69	15	139	289	71	93
\$8.00-\$9.99.....	3	...	...	2	3								
\$10.00-\$14.99....	...	...	...	...	...	1,491	157	11	5	27	61	26	12
\$15.00-\$19.99....	1	...	...	...	1								
\$20.00 and over.....	2	...	...	...	2	19,929	5,518	597	124	1,279	2,516	685	1,228
Unclassified ⁴	33	4	...	23	33								

See footnotes at end of table.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 8.—SELECTED STATISTICS FOR PRODUCING LEAD AND ZINC ORES ESTABLISHMENTS, CLASSIFIED BY OUTPUT PER MAN-HOUR, BY GEOGRAPHIC DIVISION, AND BY TYPE OF OPERATION: 1954—Continued

(For explanation of column captions, see INTRODUCTION)

Type of operation, output per man-hour ¹ , and geographic division	Number of—					Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by produc- tion and develop- ment workers (1,000)	Wages and salaries		New capital expendi- tures (\$1,000)
	Estab- lish- ments	Mines			Mills			Produc- tion and develop- ment workers	All other employees ²		Produc- tion and develop- ment workers (\$1,000)	All other em- ployees ² (\$1,000)	
		Open- pit	Combina- tion open-pit and under- ground	Under- ground									
Valued chiefly for zinc, total.....	134	9	1	110	52	81,073	44,777	6,309	989	12,651	23,701	5,275	2,822
Mines only, total ³	86	7	...	79	4	18,183	14,045	2,173	282	4,247	8,337	1,615	339
Less than \$2.00.....	4	...	...	4	...	184	138	42	...	105	170	4	18
\$2.00-\$2.99.....	7	...	...	7	1	894	727	129	7	334	561	27	44
\$3.00-\$3.99.....	9	...	...	9	...	1,257	967	163	6	393	644	26	
\$4.00-\$4.99.....	6	...	...	6	...	10,679	8,264	1,487	227	2,634	5,659	1,343	99
\$5.00-\$5.99.....	6	...	...	6	...	1,844	1,384	146	13	330	550	59	30
\$6.00-\$6.99.....	2	...	...	2	...	741	456	50	14	111	184	73	
\$7.00-\$7.99.....	2	...	...	2	...	...	...	...	...	...	...	...
\$8.00-\$9.99.....	...	...	...	...	...	...	...	...	...	...	...	...
\$10.00-\$14.99.....	4	...	...	4	...	1,861	1,532	60	10	136	285	64	
\$15.00-\$19.99.....	2	...	...	2	...	...	...	...	...	...	...	...
\$20.00 and over.....	...	...	...	...	...	...	...	...	...	...	...	...	...
Unclassified ⁴	44	7	...	37	3	723	577	96	5	204	284	19	148
Mines with producing mills and mills only, total.....	48	2	1	31	48	62,890	30,732	4,136	707	8,404	15,364	3,660	2,483
Less than \$2.00.....	...	...	...	...	...	...	...	...	...	...	...	...	...
\$2.00-\$2.99.....	4	...	...	3	4	1,442	747	381	45	654	1,054	201	4
\$3.00-\$3.99.....	10	1	...	9	10	8,169	6,173	1,109	179	2,296	3,565	928	1,106
\$4.00-\$4.99.....	4	...	...	4	4	7,629	5,342	853	108	1,706	3,454	514	79
\$5.00-\$5.99.....	2	...	...	2	2	6,396	5,287	532	91	1,046	2,083	482	119
\$6.00-\$6.99.....	2	...	...	2	2								
\$7.00-\$7.99.....	...	...	...	...	...	...	...	...	...	...	...	...	...
\$8.00-\$9.99.....	2	...	...	1	2	17,657	8,328	630	73	1,448	2,800	480	150
\$10.00-\$14.99.....	2	...	...	1	2								
\$15.00-\$19.99.....	2	...	...	...	2	16,095	1,959	217	92	417	849	429	773
\$20.00 and over.....	4	...	...	...	4								
Unclassified ⁴	16	1	1	9	16	5,502	2,896	414	119	837	1,559	626	252
EAST AND SOUTH													
Lead and zinc ores indus- tries, total.....	138	6124			41	74,182	47,709	6,352	1,091	12,952	23,846	5,663	2,357
Mines only, total ³	101	101			4	10,044	7,850	942	63	2,185	3,643	334	303
Less than \$2.00.....	3	3			...	1,179	949	190	7	470	779	31	37
\$2.00-\$2.99.....	9	9			1								
\$3.00-\$3.99.....	10	10			...	1,439	1,099	186	6	450	745	29	25
\$4.00-\$4.99.....	9	9			...								
\$5.00-\$5.99.....	9	9			1	3,796	2,967	342	21	777	1,331	119	75
\$6.00-\$6.99.....	3	3			...								
\$7.00-\$7.99.....	3	3			...	1,057	726	70	14	157	252	73	18
\$8.00-\$9.99.....	...	...			...			
\$10.00-\$14.99.....	3	3			...	1,788	1,470	57	10	130	270	64	...
\$15.00-\$19.99.....	2	2			...								
\$20.00 and over.....	...	...			...	...	...	...	...	...	...	...	...
Unclassified ⁴	50	50			2	785	639	97	5	201	266	18	148
Mines with producing mills and mills only, total.....	37	23			37	64,138	39,859	5,410	1,028	10,767	20,203	5,329	2,054
Less than \$2.00.....	...	...			...	...	...	...	...	...	...	...	...
\$2.00-\$2.99.....	4	3			4	8,616	6,125	1,361	209	2,632	4,160	1,045	1,095
\$3.00-\$3.99.....	8	8			8								
\$4.00-\$4.99.....	2	2			2	34,674	25,670	3,106	669	6,111	12,294	3,434	476
\$5.00-\$5.99.....	3	3			3								
\$6.00-\$6.99.....	1	1			1	...	...	...	...	...	...	...	...
\$7.00-\$7.99.....	...	...			...			
\$8.00-\$9.99.....	3	1			3	13,652	4,941	480	49	1,121	2,082	321	23
\$10.00-\$14.99.....	1	...			1								
\$15.00-\$19.99.....	1	...			1	2,981	411	60	6	111	232	48	2
\$20.00 and over.....	3	...			3								
Unclassified ⁴	11	5			11	4,215	2,712	403	95	792	1,435	481	458
WEST													
Lead and zinc ores indus- tries, total.....	247	6236			77	101,765	59,584	6,967	1,083	14,060	28,762	6,215	4,049
Mines only, total ³	176	176			6	28,769	23,205	2,966	395	5,692	11,654	2,355	803
Less than \$2.00.....	7	7			...	131	111	46	4	64	91	14	9
\$2.00-\$2.99.....	2	2			...								
\$3.00-\$3.99.....	4	4			1	2,706	2,229	342	35	777	1,430	325	87
\$4.00-\$4.99.....	5	5			...								
\$5.00-\$5.99.....	3	3			...	17,675	13,870	2,099	308	3,880	8,162	1,796	154
\$6.00-\$6.99.....	5	5			...								

See footnotes at end of table.

Table 8.—SELECTED STATISTICS FOR PRODUCING LEAD AND ZINC ORES ESTABLISHMENTS, CLASSIFIED BY OUTPUT PER MAN-HOUR, BY GEOGRAPHIC DIVISION, AND BY TYPE OF OPERATION: 1954—Continued

(For explanation of column captions, see INTRODUCTION)

Type of operation, output per man-hour ¹ , and geographic division	Number of—				Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by produc- tion and develop- ment workers (1,000)	Wages and salaries		New capital expendi- tures (\$1,000)
	Estab- lish- ments	Mines					Produc- tion and develop- ment workers	All other employees ²		Produc- tion and develop- ment workers (\$1,000)	All other em- ployees ² (\$1,000)	
		Open- pit	Combina- tion open-pit and under- ground	Under- ground									Mills
Lead and zinc ores indus- tries, total —Continued												
Mines only, total ³ —Continued												
\$7.00-\$7.99.....	...		....		...	...	...	...	...	...	...	...
\$8.00-\$9.99.....	3		3		...	...	...	...	...	...	...	...
\$10.00-\$14.99.....	2		2		} 1,900	1,627	99	9	206	461	29	6
\$15.00-\$19.99.....	1		1									
\$20.00 and over.....	...		...		...	...	...	...	...	...	...	...
Unclassified ⁴	144		144	5	6,357	5,368	380	39	765	1,510	191	547
Mines with producing mills and mills only, total.....	71		60	71	72,996	36,379	4,001	688	8,368	17,108	3,860	3,246
Less than \$2.00.....	2		2	2	} 2,107	1,804	290	31	732	1,234	136	559
\$2.00-\$2.99.....	...		...	...				
\$3.00-\$3.99.....	5		5	5	} 19,515	15,028	1,920	250	3,961	8,400	1,530	481
\$4.00-\$4.99.....	4		4	4								
\$5.00-\$5.99.....	9		9	9	} 6,873	5,403	577	85	1,094	2,142	501	147
\$6.00-\$6.99.....	4		3	4								
\$7.00-\$7.99.....	1		1	1	} 4,508	3,324	278	59	580	1,274	294	127
\$8.00-\$9.99.....	2		2	2								
\$10.00-\$14.99.....	1		1	1	} 4,291	3,516	163	24	350	755	159	127
\$15.00-\$19.99.....	2		...	2								
\$20.00 and over.....	3		...	3	14,486	1,602	165	91	327	663	407	783
Unclassified ⁴	38		33	38	21,216	5,702	608	148	1,324	2,640	833	1,022

¹Represents gross value of shipments for each establishment (exclusive of electric energy generated and sold) per man-hour of all production, development, and related employees.²Excludes figures for employees at central offices, which were not classified by output per man-hour.³Includes mines with nonproducing mills. See table 4, footnote 1.⁴Principally reports indicating that a substantial proportion of the production was performed by contractors, for whom employee man-hours are not included above, and a large number of small establishments reporting that proprietors or partners regularly worked at production or development activities at the establishment. Man-hours of these proprietors are similarly not included above. The "Unclassified" group also includes other types of reports for which significant ratios of man-hours to value of shipments could not be computed. See INTRODUCTION—"Output per man-hour."⁵Includes one mill with a nonproducing mine. See table 4, footnote 3.⁶All types of mines.

Table 9.—GENERAL STATISTICS FOR LEAD AND ZINC ORES ESTABLISHMENTS CLASSIFIED BY RATIO OF WAGES AND SALARIES TO VALUE ADDED IN MINING AND BY GEOGRAPHIC DIVISIONS: 1954

(For explanation of column captions, see INTRODUCTION)

Geographic division and ratio of wages and salaries to value added in mining	Number of establishments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
UNITED STATES									
Lead and zinc ores industries, total.....	520	175,947	107,409	13,592	12,974	27,554	53,676	117,687	11,072
Less than 0.30.....	32	22,791	11,493	515	65	1,086	2,228	378	429
0.30-0.39.....	24	10,318	8,132	544	74	1,249	2,463	451	470
0.40-0.49.....	27	14,599	11,325	1,165	142	2,404	4,568	696	817
0.50-0.59.....	31	24,652	18,235	2,239	315	4,549	8,349	1,679	1,148
0.60-0.69.....	32	55,998	33,551	4,016	861	8,033	16,341	4,550	2,057
0.70-0.79.....	22	10,238	6,519	1,012	157	2,259	3,964	945	127
0.80-0.89.....	19	21,661	13,972	2,527	379	4,683	9,860	2,170	1,347
0.90-0.99.....	8	8,427	1,415	341	17	792	1,311	57	1,058
1.00 and over.....	140	6,665	2,319	1,233	242	2,499	4,592	1,282	1,622
Unclassified ²	185	598	448	...	...	...	...	...	1,997
Valued chiefly for lead, total.....	343	94,874	62,713	7,156	11,564	14,654	29,549	19,453	4,883
Less than 0.30.....	21	16,590	6,330	277	31	572	1,158	155	296
0.30-0.39.....	15	2,924	2,765	205	13	448	879	66	466
0.40-0.49.....	18	6,790	5,585	573	60	1,221	2,314	275	736
0.50-0.59.....	17	18,823	13,473	1,495	203	3,028	6,135	1,156	701
0.60-0.69.....	20	37,449	27,929	3,337	656	6,674	13,729	3,591	1,046
0.70-0.79.....	8	3,678	2,875	425	35	987	1,815	316	62
0.80-0.89.....	12	5,889	2,686	405	105	813	1,684	556	617
0.90-0.99.....	1	30	17	5	...	12	16	...	1
1.00 and over.....	93	2,201	665	434	129	899	1,819	692	707
Unclassified ²	138	500	388	...	...	...	...	...	251
Valued chiefly for zinc, total.....	177	81,073	44,696	6,436	11,410	12,900	24,127	18,234	6,189
Less than 0.30.....	11	6,201	5,163	238	34	514	1,070	223	133
0.30-0.39.....	9	7,394	5,367	339	61	801	1,584	385	4
0.40-0.49.....	9	7,809	5,740	592	82	1,183	2,254	421	81
0.50-0.59.....	14	5,829	4,762	744	112	1,519	2,214	523	447
0.60-0.69.....	12	18,549	5,622	679	205	1,359	2,612	959	1,011
0.70-0.79.....	14	6,560	3,644	587	122	1,272	2,149	629	65
0.80-0.89.....	7	15,772	11,286	2,122	274	3,872	8,176	1,614	730
0.90-0.99.....	7	8,397	1,398	336	17	780	1,295	57	1,057
1.00 and over.....	47	4,464	1,654	799	114	1,600	2,773	590	915
Unclassified ²	47	98	60	...	...	...	...	...	1,746
EAST AND SOUTH									
Lead and zinc ores industries, total.....	164	74,182	47,738	6,448	11,608	13,161	24,178	19,817	5,483
Less than 0.30.....	12	2,288	1,909	95	10	204	371	64	88
0.30-0.39.....	10	6,357	5,106	344	49	809	1,559	318	
0.40-0.49.....	9	3,292	1,991	199	19	441	852	106	824
0.50-0.59.....	17	9,346	7,507	1,059	156	2,171	3,505	744	
0.60-0.69.....	12	30,627	22,698	2,767	576	5,443	10,810	2,931	436
0.70-0.79.....	12	5,717	2,965	483	101	1,014	1,783	514	59
0.80-0.89.....	7	4,581	2,801	490	103	956	1,791	596	705
0.90-0.99.....	8	8,427	1,415	341	17	792	1,311	57	1,058
1.00 and over.....	31	3,413	1,247	670	78	1,331	2,196	384	666
Unclassified ²	46	134	99	...	...	...	...	...	1,647
Valued chiefly for lead, total.....	40	32,632	24,044	2,905	1,687	5,751	11,456	14,281	807
Less than 0.30.....	3	221	218	17	...	34	43	...	18
0.30-0.39.....	3	611	455	47	...	107	158	...	
0.40-0.49.....	2							...	
0.50-0.59.....	4	3,585	2,806	325	517	672	1,319		2,681	392
0.60-0.69.....	4	26,051	19,202	2,310		4,521	9,130	304	
0.70-0.79.....	2	2,083	1,304	193	...	385	766	313	...
0.80-0.89.....	2								
0.90-0.99.....	1	32	27	13	57	32	40	68	
1.00 and over.....	6								
Unclassified ²	13	49	32	...	...	...	...	...	21
Valued chiefly for zinc, total.....	124	41,550	23,694	3,543	1,921	7,410	12,722	15,536	4,676
Less than 0.30.....	9	2,067	1,691	78	10	170	328	64	...
0.30-0.39.....	7	9,038	6,642	496	49	1,143	2,253	318	70
0.40-0.49.....	7				19			106	
0.50-0.59.....	13	5,761	4,701	734	215	1,499	2,186	994	432
0.60-0.69.....	8	4,576	3,496	457		922	1,680		132
0.70-0.79.....	10	8,215	4,462	780	101	1,585	2,808	1,238	59
0.80-0.89.....	5								1,695
0.90-0.99.....	7	11,808	2,635	998	141	2,091	3,467	1,695	
1.00 and over.....	25								645
Unclassified ²	33	85	67	...	...	...	...	...	1,643

See footnotes at end of table.

Table 9.—GENERAL STATISTICS FOR LEAD AND ZINC ORES ESTABLISHMENTS CLASSIFIED BY RATIO OF WAGES AND SALARIES TO VALUE ADDED IN MINING AND BY GEOGRAPHIC DIVISIONS: 1954—Continued

(For explanation of column captions, see INTRODUCTION)

Geographic division and ratio of wages and salaries to value added in mining	Number of establishments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
WEST									
Lead and zinc ores industries, total.....	356	101,765	59,671	7,144	11,366	14,393	29,498	17,870	5,589
Less than 0.30.....	20	20,503	9,584	420	55	882	1,857	314	1,628
0.30-0.39.....	14	3,961	3,026	200	25	440	904	133	
0.40-0.49.....	18	11,307	9,334	966	123	1,963	3,716	590	
0.50-0.59.....	14	15,306	10,728	1,180	159	2,378	4,844	935	
0.60-0.69.....	20	25,371	10,853	1,249	285	2,590	5,531	1,619	1,621
0.70-0.79.....	10	4,521	3,554	529	56	1,245	2,181	431	68
0.80-0.89.....	12	17,080	11,171	2,037	276	3,727	8,069	1,574	642
0.90-0.99.....	...	...	...	...	...	...	...	...	...
1.00 and over.....	109	3,252	1,072	563	165	1,168	2,396	898	956
Unclassified ²	139	464	349	...	...	...	...	...	350
Valued chiefly for lead, total.....	303	62,242	38,669	4,251	1877	8,903	18,093	15,172	4,076
Less than 0.30.....	18	18,792	8,490	427	44	901	1,868	221	1,789
0.30-0.39.....	12								
0.40-0.49.....	16	21,918	16,184	1,734	218	3,555	7,098	1,206	
0.50-0.59.....	13								
0.60-0.69.....	16	11,398	8,727	1,027	184	2,153	4,599	1,135	742
0.70-0.79.....	6	7,484	4,257	637	84	1,415	2,733	560	612
0.80-0.89.....	10								
0.90-0.99.....	...	...	...	...	...	...	...	...	...
1.00 and over.....	87	2,199	655	426	128	879	1,795	691	686
Unclassified ²	125	451	356	...	...	...	...	...	247
Valued chiefly for zinc, total.....	53	39,523	21,002	2,893	1489	5,490	11,405	12,698	1,513
Less than 0.30.....	2	5,672	4,120	193	36	421	893	226	163
0.30-0.39.....	2								
0.40-0.49.....	2	4,695	3,878	412	64	786	1,462	319	
0.50-0.59.....	1								
0.60-0.69.....	4	13,973	2,126	222	101	437	932	484	879
0.70-0.79.....	4	14,117	10,468	1,929	248	3,557	7,517	1,445	98
0.80-0.89.....	2								
0.90-0.99.....	...	...	...	...	...	...	...	...	...
1.00 and over.....	22	1,053	417	137	37	289	601	207	270
Unclassified ²	14	13	(³)	...	...	...	...	...	103

¹Includes employees at central offices not classified by ratio of wages and salaries to value added. See table 2, footnotes 7 and 10.²Establishments reporting less than \$500 for wages and salaries.³Combined costs exceeded the sum of the value of shipments and of capital expenditures by \$7,000. See INTRODUCTION, "Value Added in Mining."

Table 10.—HORSEPOWER OF POWER EQUIPMENT USED IN THE LEAD AND

(For explanation of column captions,

	Geographic division and type of operation	Aggregate horsepower per production worker	Aggregate horsepower (prime movers and electric motors driven by purchased energy)				
			Total	Loading equipment	Transportation equipment		All other equipment
					Highway type	Other	
1	Lead and zinc ores industries, total.....	55	749,617	49,498	54,768	131,271	514,080
2	Northeast and East North Central.....	49	62,555	3,411	3,455	8,787	46,902
3	West North Central.....	61	190,098	16,953	4,628	41,221	127,296
4	South.....	73	150,073	10,533	6,953	12,392	120,195
5	Mountain.....	47	319,784	17,087	34,065	66,139	202,493
6	Pacific.....	88	27,107	1,514	5,667	2,732	17,194
7	Valued chiefly for lead, total.....	59	423,204	28,231	33,937	91,229	269,807
8	Northeast and East North Central.....	(¹)	455	80	210	...	165
9	West North Central.....	62	171,964	13,725	3,788	35,686	118,765
10	South.....	38	5,752	1,131	825	1,053	2,743
11	Mountain.....	57	229,836	12,383	25,334	52,748	139,371
12	Pacific.....	72	15,197	912	3,780	1,742	8,763
13	Valued chiefly for zinc, total.....	51	326,413	21,267	20,831	40,042	244,273
14	Northeast and East North Central.....	49	62,100	3,331	3,245	8,787	46,737
15	West North Central.....	51	18,134	3,228	840	5,535	8,531
16	South.....	76	144,321	9,402	6,128	11,339	117,452
17	Mountain.....	32	89,948	4,704	8,731	13,391	63,122
18	Pacific.....	124	11,910	602	1,887	990	8,431
TYPE OF OPERATION							
Lead and Zinc Ores Industries							
19	Producing establishments, total.....	52	696,135	46,472	49,156	126,087	474,420
20	Open-pit mines and combination open-pit and underground mines ²	61	18,064	1,185	3,916	2,880	10,083
21	Underground mines ²	45	562,193	44,191	40,727	122,552	354,723
22	Mills only ³	205	115,878	1,096	4,513	655	109,614
23	Nonproducing establishments.....	196	53,482	3,026	5,612	5,184	39,660
Valued Chiefly for Lead							
24	Producing establishments, total.....	55	385,338	26,565	30,400	87,167	241,206
25	Open-pit and combination open-pit and underground mines ² ..	64	14,462	1,115	2,825	2,410	8,112
26	Underground mines ²	54	364,056	25,285	26,875	84,596	227,300
27	Mills only ³	69	6,820	165	700	161	5,794
28	Nonproducing establishments.....	259	37,866	1,666	3,537	4,062	28,601
Valued Chiefly for Zinc							
29	Producing establishments, total.....	49	310,797	19,907	18,756	38,920	233,214
30	Open-pit and combination open-pit and underground mines ² ..	51	3,602	70	1,091	470	1,971
31	Underground mines ²	34	198,137	18,906	13,852	37,956	127,423
32	Mills only.....	235	109,058	931	3,813	494	103,820
33	Nonproducing establishments.....	122	15,616	1,360	2,075	1,122	11,059

¹Not computed since the number of working proprietors exceeds the number of production workers for establishments in this group.²Both mines only and mines operated with associated mills.³Includes one mill with a nonproducing mine.

ZINC ORES INDUSTRIES BY GEOGRAPHIC DIVISIONS AND TYPE OF OPERATION: 1954

see INTRODUCTION)

Prime movers (horsepower)							Electric motors (horsepower)						
Total	By type of equipment				By use		Total	By type of equipment			By source of energy		
	Loading equipment	Transportation equipment		All other equipment	Driving generators	Not driving generators		Loading equipment	Transportation equipment	All other equipment	Driven by purchased energy	Driven by energy generated at the establishment	
		Highway type	Other										
169,162	21,676	54,768	28,795	63,923	40,551	128,611	611,398	29,308	103,851	478,239	580,455	30,943	
31,847	2,518	3,455	5,258	20,616	16,453	15,394	36,808	1,493	3,529	31,786	30,708	6,100	2
20,776	3,898	4,628	7,691	4,559	180	20,596	169,322	13,055	33,530	122,737	169,322	...	3
21,228	5,503	6,953	8,092	680	34	21,194	128,891	5,076	4,300	119,515	128,845	46	4
80,601	8,692	34,065	5,654	32,190	19,324	61,277	257,752	8,572	61,057	188,123	239,183	18,569	5
14,710	1,065	5,667	2,100	5,878	4,560	10,150	18,625	1,112	1,435	16,078	12,397	6,228	6
94,209	10,587	33,937	11,022	38,663	22,644	71,565	352,059	18,427	81,239	252,393	328,995	23,064	7
355	30	210	...	115	...	355	100	50	...	50	100	...	8
12,256	1,730	3,788	3,693	3,045	180	12,076	159,708	11,995	31,993	115,720	159,708	...	9
3,046	723	825	978	520	...	3,046	2,706	408	75	2,223	2,706	...	10
67,307	7,474	25,334	4,701	29,798	18,164	49,143	179,365	5,029	48,276	126,060	162,529	16,836	11
11,245	630	3,780	1,650	5,185	4,300	6,945	10,180	945	895	8,340	3,952	6,228	12
74,953	11,089	20,831	17,773	25,260	17,907	57,046	259,339	10,881	22,612	225,846	251,460	7,879	13
31,492	2,488	3,245	5,258	20,501	16,453	15,039	36,708	1,443	3,529	31,736	30,608	6,100	14
8,520	2,168	840	3,998	1,514	...	8,520	9,614	1,060	1,537	7,017	9,614	...	15
18,182	4,780	6,128	7,114	160	34	18,148	126,185	4,668	4,225	117,292	126,139	46	16
13,294	1,218	8,731	953	2,392	1,160	12,134	78,387	3,543	12,781	62,063	76,654	1,733	17
3,465	435	1,887	450	693	260	3,205	8,445	167	540	7,738	8,445	...	18
142,513	19,792	49,156	27,959	45,606	26,497	116,016	571,797	28,166	99,503	444,128	553,622	18,175	19
6,693	445	3,916	1,310	1,022	122	6,571	11,371	740	1,570	9,061	11,371	...	20
129,434	18,351	40,727	26,119	44,237	26,343	103,091	450,888	27,280	97,808	325,800	432,759	18,129	21
6,386	996	4,513	530	347	32	6,354	109,538	146	125	109,267	109,492	46	22
26,649	1,884	5,612	836	18,317	14,054	12,595	39,601	1,142	4,348	34,111	26,833	12,768	23
71,695	9,513	30,400	10,586	21,196	8,802	62,893	323,939	17,835	77,613	228,491	313,643	10,296	24
5,192	375	2,825	1,070	922	72	5,120	9,270	740	1,340	7,190	9,270	...	25
65,278	8,998	26,875	9,356	20,049	8,730	56,548	309,074	17,070	76,272	215,732	298,778	10,296	26
1,225	140	700	160	225	...	1,225	5,595	25	1	5,569	5,595	...	27
22,514	1,074	3,537	436	17,467	13,842	8,672	28,120	592	3,626	23,902	15,352	12,768	28
70,818	10,279	18,756	17,373	24,410	17,695	53,123	247,858	10,331	21,890	215,637	239,979	7,879	29
1,501	70	1,091	240	100	50	1,451	2,101	...	230	1,871	2,101	...	30
64,156	9,353	13,852	16,763	24,188	17,613	46,543	141,814	10,210	21,536	110,068	133,981	7,833	31
5,161	856	3,813	370	122	32	5,129	103,943	121	124	103,698	103,897	46	32
4,135	810	2,075	400	850	212	3,923	11,481	550	722	10,209	11,481	...	33

Table 11.—NUMBER OF POWER LOADING MACHINES IN THE LEAD AND ZINC ORES INDUSTRIES

Type of loading equipment		United States						Northeast and East North Central ¹		
		1954			1939					
		Total	Valued chiefly for lead ¹	Valued chiefly for zinc ¹	Total	Lead ores industry ¹	Zinc ores industry ¹	Total	Valued chiefly for lead ¹	Valued chiefly for zinc ¹
1	Surface loading equipment, total.....	² 201	118	83	² 59	6	53	23	2	21
	By kind of power used:									
2	Steam.....	12	11	1	7	4	3	1	...	1
3	Electric and Diesel-electric.....	74	33	41	13	1	12	6	...	6
4	Diesel.....	36	19	17	39	1	38	4	...	4
5	Gasoline and other.....	79	55	24				12	2	10
6	Power shovels, total.....	54	29	25	41	1	40	6	...	6
	By kind of power used:									
7	Steam.....	...	...	...	3	...	3	...	...	...
8	Electric and Diesel-electric.....	3	3	...	5	...	5	...	...	...
9	Diesel.....	25	11	14	33	1	32	2	...	2
10	Gasoline and other.....	26	15	11				4	...	4
	By dipper or bucket capacity (cubic yards):									
11	Less than 3.....	53	28	25	40	1	39	6	...	6
12	3-5 inclusive.....	...	...	...	1	...	1	...	...	...
13	More than 12.....	1	1	...	...	...	...	...	...	...
14	Dragline excavators, total.....	20	14	6	3	...	3	1	...	1
	By kind of power used:									
15	Electric and Diesel-electric.....	5	2	3	2	...	2	...	...	...
16	Diesel.....	2	2	...	1	...	1	...	...	...
17	Gasoline and other.....	13	10	3				1	...	1
	By dipper or bucket capacity (cubic yards):									
18	Less than 3.....	20	14	6	3	...	3	1	...	1
19	Scraper loaders, total.....	25	17	8	5	...	5	3	...	3
	By kind of power used:									
20	Electric and Diesel-electric.....	4	2	2	5	...	5	...	...	...
21	Diesel.....	8	5	3	...	...	...	2	...	2
22	Gasoline and other.....	13	10	3	...	...	...	1	...	1
	By rated horsepower:									
23	Less than 10.....	4	1	3	...	...	...	1	...	1
24	10-25 inclusive.....	7	6	1	4	...	4	...	...	...
25	26-100 inclusive.....	13	9	4	1	...	1	2	...	2
26	More than 100.....	1	1	...	...	...	...	...	...	...
27	Clamshell loaders (gasoline or Diesel).....	...	...	...	1	...	1	...	...	...
28	Cranes and hoists, total.....	102	58	44	8	5	3	13	2	11
	By kind of power used:									
29	Steam.....	12	11	1	4	4	...	1	...	1
30	Electric and Diesel-electric.....	62	26	36	1	1	...	6	...	6
31	Diesel.....	1	1	...	3	...	3	...	...	...
32	Gasoline and other.....	27	20	7				6	2	4
33	Cletrack (gasoline or Diesel).....	...	...	...	1	...	1	...	...	...
34	Underground loading equipment, total.....	2,140	1,281	859	432	203	229	160	1	159
	By kind of power used:									
35	Compressed air.....	1,066	678	388	133	75	58	57	...	57
36	Electric and Diesel-electric.....	927	568	359	299	128	171	73	1	72
37	Diesel.....	124	23	101	...	...	...	20	...	20
38	Gasoline and other.....	23	12	11	...	...	...	10	...	10
39	Shovel loaders requiring a minimum working height of 8 feet or less, total.....	564	396	168	132	111	21	30	...	30
	By kind of power used:									
40	Compressed air.....	420	277	143	47	27	20	18	...	18
41	Electric and Diesel-electric.....	117	115	2	85	84	1	...	...	...
42	Diesel.....	13	...	13	...	...	...	2	...	2
43	Gasoline and other.....	14	4	10	...	...	...	10	...	10
44	Shovel loaders requiring a minimum working height of more than 8 feet, total.....	161	60	101	4	1	3	24	1	23
	By kind of power used:									
45	Compressed air.....	51	34	17	3	...	3	...	...	...
46	Electric and Diesel-electric.....	10	2	8	1	1	...	6	1	5
47	Diesel.....	99	23	76	...	...	...	18	...	18
48	Gasoline and other.....	1	1	...	...	...	...	...	...	...
49	Scraper loaders (including slushers), total.....	1,413	825	588	296	91	205	106	...	106
	By kind of power used:									
50	Compressed air.....	595	367	228	83	48	35	39	...	39
51	Electric and Diesel-electric.....	800	451	349	213	43	170	67	...	67
52	Diesel.....	10	...	10	...	...	...	...	...	...
53	Gasoline and other.....	8	7	1	...	...	...	...	...	...
	By rated horsepower:									
54	Less than 10.....	564	343	221	78	27	51	22	...	22
55	10-25 inclusive.....	584	321	263	150	27	123	82	...	82
56	26-100 inclusive.....	248	161	87	68	37	31	2	...	2
57	More than 100.....	17	...	17	...	...	...	...	...	...
58	Other types of equipment (Diesel).....	2	...	2	...	...	...	...	...	...

¹See table 1, footnote 6.²In addition, 24 bull dozers were reported for 1954 and two for 1939.

LEAD AND ZINC ORES

10E-41

IN THE UNITED STATES, 1954 AND 1939, AND BY GEOGRAPHIC DIVISIONS, 1954

West North Central			South			Mountain			Pacific			
Total	Valued chiefly for lead ¹	Valued chiefly for zinc ¹	Total	Valued chiefly for lead ¹	Valued chiefly for zinc ¹	Total	Valued chiefly for lead ¹	Valued chiefly for zinc ¹	Total	Valued chiefly for lead ¹	Valued chiefly for zinc ¹	
31	13	18	24	6	18	114	91	23	9	6	3	1
1	1	...	...	...	...	10	10	...	...	...	...	2
17	4	13	4	...	4	46	28	18	1	1	...	3
6	3	3	8	...	8	17	16	1	1	...	1	4
7	5	2	12	6	6	41	37	4	7	5	2	5
9	6	3	16	2	14	19	18	1	4	3	1	6
...	...	...	...	...	...	...	...	...	...	...	...	7
2	2	...	...	...	...	1	1	...	...	...	...	8
5	2	3	8	...	8	9	9	...	1	...	1	9
2	2	...	8	2	6	9	8	1	3	3	...	10
9	6	3	16	2	14	18	17	1	4	3	1	11
...	...	...	...	...	...	...	...	...	...	...	...	12
...	...	...	...	...	...	1	1	...	...	...	...	13
6	1	5	1	1	...	11	11	...	1	1	...	14
4	1	3	...	...	...	1	1	...	...	...	...	15
...	...	...	...	...	...	2	2	...	...	...	...	16
2	...	2	1	1	...	8	8	...	1	1	...	17
6	1	5	1	1	...	11	11	...	1	1	...	18
1	...	1	...	...	...	19	17	2	2	...	2	19
1	...	1	...	...	...	3	2	1	...	...	...	20
...	...	...	...	...	...	6	5	1	...	...	...	21
...	...	...	...	...	...	10	10	...	2	...	2	22
1	...	1	...	...	...	2	1	1	...	...	...	23
...	...	...	...	...	...	6	6	...	1	...	1	24
...	...	...	...	...	...	10	9	1	1	...	1	25
...	...	...	...	...	...	1	1	...	...	...	...	26
...	...	...	...	...	...	...	...	...	...	...	...	27
15	6	9	7	3	4	65	45	20	2	2	...	28
1	1	...	...	...	...	10	10	...	...	...	...	29
10	1	9	4	...	4	41	24	17	1	1	...	30
1	1	...	...	...	...	...	...	...	...	...	...	31
3	3	...	3	3	...	14	11	3	1	1	...	32
...	...	...	...	...	...	...	...	...	...	...	...	33
301	247	54	277	23	254	1,280	901	379	122	109	13	34
26	24	2	67	5	62	870	613	257	46	36	10	35
243	217	26	149	9	140	399	279	120	63	62	1	36
31	6	25	61	9	52	2	...	2	10	8	2	37
1	...	1	...	...	...	9	9	...	3	3	...	38
140	139	1	25	1	24	356	251	105	13	5	8	39
24	24	...	13	1	12	353	248	105	12	4	8	40
115	115	...	2	...	2	...	...	...	...	...	...	41
1	...	1	10	...	10	...	...	...	...	...	...	42
...	...	...	...	...	...	3	3	...	1	1	...	43
33	6	27	60	9	51	24	24	...	20	20	...	44
...	...	...	17	...	17	22	22	...	12	12	...	45
3	...	3	...	...	...	1	1	...	...	...	...	46
30	6	24	43	9	34	...	...	...	8	8	...	47
...	...	...	...	...	...	1	1	...	...	...	...	48
128	102	26	192	13	179	900	626	274	87	84	3	49
2	...	2	37	4	33	495	343	152	22	20	2	50
125	102	23	147	9	138	398	278	120	63	62	1	51
...	...	...	8	...	8	2	...	2	...	...	...	52
1	...	1	...	...	...	5	5	...	2	2	...	53
2	...	2	16	2	14	499	317	182	25	24	1	54
25	10	15	84	8	76	336	247	89	57	56	1	55
101	92	9	75	3	72	65	62	3	5	4	1	56
...	...	...	17	...	17	...	...	...	...	...	...	57
...	...	...	...	...	...	...	...	...	2	...	2	58

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 12.—MATERIALS, SUPPLIES, FUELS, AND ELECTRIC ENERGY USED IN THE LEAD AND

(For explanation of line captions,

Item	Unit of quantity	United States						Northeast and East North Central		West North Central	
		Total		Valued chiefly for lead		Valued chiefly for zinc		Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
		Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)				
1 Crude ore and old tailings milled, total.....	1,000 short tons.	19,941	xxx	10,630	xxx	9,311	xxx	1,793	xxx	8,540	xxx
2 Gross metal content:											
3 Lead.....	1,000 pounds..	680,232	xxx	543,233	xxx	136,999	xxx	11,446	xxx	278,832	xxx
4 Zinc.....	....do.....	1,033,730	xxx	226,310	xxx	807,420	xxx	251,241	xxx	34,470	xxx
5 Copper.....	....do.....	23,509	xxx	15,310	xxx	8,199	xxx	...	xxx	5,125	xxx
6 Gold.....	1,000 fine ounces.	143.1	xxx	90.5	xxx	52.6	xxx	...	xxx	...	xxx
7 Silver.....	....do.....	15,024	xxx	9,549	xxx	5,475	xxx	39	xxx	403	xxx
8 Crude ore mined and milled at same establishment.....	1,000 short tons.	12,801	xxx	8,252	xxx	4,549	xxx	995	xxx	6,909	xxx
9 Gross metal content:											
10 Lead.....	1,000 pounds..	478,399	xxx	409,175	xxx	69,224	xxx	5,120	xxx	253,220	xxx
11 Zinc.....	....do.....	622,275	xxx	118,230	xxx	504,045	xxx	195,861	xxx	29,228	xxx
12 Copper.....	....do.....	12,949	xxx	10,418	xxx	2,531	xxx	...	xxx	5,125	xxx
13 Gold.....	1,000 fine ounces.	74.6	xxx	37.4	xxx	37.2	xxx	...	xxx	...	xxx
14 Silver.....	....do.....	7,704	xxx	5,773	xxx	1,931	xxx	39	xxx	403	xxx
15 Old tailings milled at same establishment.....	1,000 short tons.	1,647	xxx	1,614	xxx	33	xxx	...	xxx	1,598	xxx
16 Gross metal content:											
17 Lead.....	1,000 pounds..	26,371	xxx	26,076	xxx	295	xxx	...	xxx	25,007	xxx
18 Zinc.....	....do.....	4,909	xxx	3,446	xxx	1,463	xxx	...	xxx	2,973	xxx
19 Copper.....	....do.....	16	xxx	16	xxx	...	xxx	...	xxx	...	xxx
20 Gold.....	1,000 fine ounces.	...	xxx	...	xxx	...	xxx	...	xxx	...	xxx
21 Silver.....	....do.....	62	xxx	62	xxx	...	xxx	...	xxx	...	xxx
22 Purchased or received from other establishments of same company.....	1,000 short tons.	5,183	30,997	509	10,248	4,674	20,749	798	2,124	...	...
23 Gross metal content:											
24 Lead.....	1,000 pounds..	153,586	xxx	86,727	xxx	66,859	xxx	6,326	xxx	...	xxx
25 Zinc.....	....do.....	378,228	xxx	79,566	xxx	298,662	xxx	55,380	xxx	...	xxx
26 Copper.....	....do.....	8,929	xxx	3,316	xxx	5,613	xxx	...	xxx	...	xxx
27 Gold.....	1,000 fine ounces.	32.3	xxx	17.0	xxx	15.3	xxx	...	xxx	...	xxx
28 Silver.....	....do.....	6,028	xxx	2,494	xxx	3,534	xxx	...	xxx	...	xxx
29 Received for milling on a custom basis.....	1,000 short tons.	310	4,119	255	3,949	55	170	...	...	33	96
30 Gross metal content:											
31 Lead.....	1,000 pounds..	21,876	xxx	21,255	xxx	621	xxx	...	xxx	605	xxx
32 Zinc.....	....do.....	28,318	xxx	25,068	xxx	3,250	xxx	...	xxx	2,269	xxx
33 Copper.....	....do.....	1,615	xxx	1,560	xxx	55	xxx	...	xxx	...	xxx
34 Gold.....	1,000 fine ounces.	36.2	xxx	36.1	xxx	0.1	xxx	...	xxx	...	xxx
35 Silver.....	....do.....	1,230	xxx	1,220	xxx	10	xxx	...	xxx	...	xxx
36 Supplies used, total.....		xxx	24,673	xxx	12,790	xxx	11,883	xxx	2,500	xxx	4,663
37 Explosives.....	1,000 pounds..	16,645	3,148	8,940	1,603	7,705	1,545	1,891	401	4,752	815
38 Steel mill shapes and forms..	Short tons....	15,866	2,982	10,016	1,941	5,850	1,041	2,102	316	6,006	1,143
39 All other supplies.....		xxx	18,543	xxx	9,246	xxx	9,297	xxx	1,783	xxx	2,705
40 Fuels used, total.....	Million kwh equivalent.	882	1,409	293	600	589	809	237	313	99	199
41 Coal ³	1,000 short tons..	50	413	13	117	37	296	28	225	(⁵)	65
42 Distillate fuel oil ⁴	1,000 barrels..	81	442	33	190	48	252	14	72	11	...
43 Residual fuel oil.....	....do.....	2	8	2	8	...	...	...	...	...	...
44 Natural gas.....	Million cu. ft.	922	231	273	86	649	145	...	...	223	91
45 Other fuels.....		xxx	315	xxx	199	xxx	116	xxx	16	xxx	43
46 Electric energy purchased.....	Million kwh...	759	6,838	456	4,027	303	2,811	55	699	242	2,250
47 Electric energy generated and used.....	....do.....	35	xxx	27	xxx	8	xxx	5	xxx	...	xxx

¹Figures for old tailings milled are combined with figures for crude ore mined and milled at same establishment.²Figures for ores received for milling on a custom basis are combined with ores purchased.³Approximately one-half anthracite and one-half bituminous coal and lignite.⁴Includes approximately 1,000 barrels at a cost of \$5,000 for establishments reporting combined figures for distillate and residual fuel oil or not specifying the type of fuel oil.⁵Less than 500 tons.⁶Less than 500,000 cu. ft.

ZINC ORES INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954

see INTRODUCTION)

South		Mountain												Pacific		
		Total		Valued chiefly for lead		Valued chiefly for zinc		Idaho		Colorado		Montana, New Mexico, Arizona, Utah, and Nevada				
Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	
4,837	xxx	3,757	xxx	2,106	xxx	1,651	xxx	1,266	xxx	659	xxx	1,832	xxx	1,014	xxx	1
47,442	xxx	317,696	xxx	245,706	xxx	71,990	xxx	133,968	xxx	34,050	xxx	149,678	xxx	24,816	xxx	2
237,966	xxx	455,866	xxx	196,360	xxx	259,506	xxx	113,661	xxx	84,816	xxx	257,389	xxx	54,187	xxx	3
...	xxx	18,315	xxx	10,136	xxx	8,179	xxx	835	xxx	5,774	xxx	11,706	xxx	69	xxx	4
...	xxx	142.9	xxx	90.3	xxx	52.6	xxx	5.7	xxx	38.4	xxx	98.8	xxx	0.2	xxx	5
2	xxx	14,397	xxx	9,146	xxx	5,251	xxx	4,950	xxx	1,884	xxx	7,563	xxx	183	xxx	6
1,790	xxx	2,093	xxx	1,370	xxx	723	xxx	1,106	xxx	1,607	xxx	384	xxx	1,014	xxx	7
13,580	xxx	181,663	xxx	138,065	xxx	43,598	xxx	120,055	xxx	29,417	xxx	132,270	xxx	24,816	xxx	8
111,676	xxx	231,323	xxx	92,965	xxx	138,358	xxx	100,977	xxx	78,448	xxx	151,938	xxx	54,187	xxx	9
...	xxx	7,755	xxx	5,244	xxx	2,511	xxx	615	xxx	15,739	xxx	11,406	xxx	69	xxx	10
...	xxx	74.4	xxx	37.2	xxx	37.2	xxx	5.3	xxx	132.1	xxx	137.0	xxx	0.2	xxx	11
2	xxx	7,077	xxx	5,370	xxx	1,707	xxx	4,151	xxx	1,744	xxx	1,204	xxx	183	xxx	12
14	xxx	35	xxx	35	xxx	...	xxx	31	xxx	(1)	xxx	(1)	xxx	...	xxx	13
292	xxx	1,072	xxx	1,072	xxx	...	xxx	993	xxx	(1)	xxx	(1)	xxx	...	xxx	14
964	xxx	972	xxx	972	xxx	...	xxx	932	xxx	(1)	xxx	(1)	xxx	...	xxx	15
...	xxx	16	xxx	16	xxx	...	xxx	11	xxx	(1)	xxx	(1)	xxx	...	xxx	16
...	xxx	...	xxx	...	xxx	...	xxx	...	xxx	(1)	xxx	(1)	xxx	...	xxx	17
...	xxx	62	xxx	62	xxx	...	xxx	40	xxx	(1)	xxx	(1)	xxx	...	xxx	18
2,950	7,244	1,435	21,629	509	10,248	926	11,381	2,129	2,165	252	2,506	2,144	22,798	...	...	19
32,368	xxx	114,892	xxx	86,727	xxx	28,165	xxx	2,12,920	xxx	24,633	xxx	2,117,408	xxx	...	xxx	20
122,280	xxx	200,568	xxx	79,566	xxx	121,002	xxx	2,11,752	xxx	26,368	xxx	2,205,451	xxx	...	xxx	21
...	xxx	8,929	xxx	3,316	xxx	5,613	xxx	2,209	xxx	235	xxx	2,210,300	xxx	...	xxx	22
...	xxx	32.3	xxx	17.0	xxx	15.3	xxx	2,20.4	xxx	26.3	xxx	2,261.8	xxx	...	xxx	23
...	xxx	6,028	xxx	2,494	xxx	3,534	xxx	2,2759	xxx	2,2140	xxx	2,26,359	xxx	...	xxx	24
83	183	194	3,840	192	3,793	2	47	(2)	(2)	(2)	(2)	(2)	(2)	...	...	25
1,202	xxx	20,069	xxx	19,842	xxx	227	xxx	(2)	xxx	(2)	xxx	(2)	xxx	...	xxx	26
3,046	xxx	23,003	xxx	22,857	xxx	146	xxx	(2)	xxx	(2)	xxx	(2)	xxx	...	xxx	27
...	xxx	1,615	xxx	1,560	xxx	55	xxx	(2)	xxx	(2)	xxx	(2)	xxx	...	xxx	28
...	xxx	36.2	xxx	36.1	xxx	0.1	xxx	(2)	xxx	(2)	xxx	(2)	xxx	...	xxx	29
...	xxx	1,230	xxx	1,220	xxx	10	xxx	(2)	xxx	(2)	xxx	(2)	xxx	...	xxx	30
xxx	3,543	xxx	12,818	xxx	7,903	xxx	4,915	xxx	4,424	xxx	2,326	xxx	6,068	xxx	1,149	31
2,970	533	6,113	1,207	4,098	758	2,015	449	2,047	381	1,314	246	2,752	580	919	192	32
1,706	377	5,499	1,045	3,757	749	1,742	296	1,620	300	855	181	3,024	564	553	101	33
xxx	2,633	xxx	10,566	xxx	6,396	xxx	4,170	xxx	3,743	xxx	1,899	xxx	4,924	xxx	856	34
112	196	414	648	193	387	221	261	62	128	60	144	292	376	20	53	35
{ 6 }	104	{ 15 }	137	12	110	3	27	5	46	4	40	6	51	1	8	36
{ 12 }	...	{ 39 }	212	21	114	18	98	5	29	13	73	21	110	5	32	37
...	...	2	8	2	8	...	...	2	8	...	...	...	...	...	...	38
98	27	601	113	83	9	518	104	...	...	(6)	1	601	112	...	...	39
xxx	65	xxx	178	xxx	146	xxx	32	xxx	45	xxx	30	xxx	103	xxx	13	40
92	936	353	2,817	221	1,886	132	931	121	792	39	488	193	1,537	17	136	41
...	xxx	13	xxx	10	xxx	3	xxx	5	xxx	4	xxx	4	xxx	17	xxx	42

Table 13.—WATER USE IN THE LEAD AND ZINC ORES INDUSTRIES, BY

	Geographic division, State, and type of operation	Number of production and develop- ment workers	Value added in mining (\$1,000)	Water intake (except mine water)			Water discharged (except mine water) (million gallons)
				Million gallons	Million gallons per production worker	Gallons per dollar value added	
1	United States, total.....	13,592	107,409	12,574	0.93	117	10,829
2	Valued chiefly for lead.....	7,156	62,713	5,030	0.70	80	4,722
3	Valued chiefly for zinc.....	6,436	44,696	7,544	1.17	169	6,107
4	Northeast and East North Central.....	1,279	11,950	1,072	0.84	90	1,071
5	Valued chiefly for zinc.....	1,278	11,925	1,072	0.84	90	1,071
6	Illinois.....	84	1,239	1	0.01	1	1
7	Other States.....	1,195	10,711	1,071	0.90	100	1,070
8	West North Central, total.....	3,108	24,880	780	0.25	31	644
9	Valued chiefly for lead.....	2,752	22,909	228	0.08	10	228
10	Valued chiefly for zinc.....	356	1,971	552	1.55	280	416
11	Missouri, total.....	2,766	22,708	620	0.22	27	506
12	Valued chiefly for lead.....	2,700	22,513	203	0.08	9	203
13	Valued chiefly for zinc.....	66	195	417	6.32	2,138	303
14	Kansas, total.....	342	2,172	160	0.47	74	138
15	Valued chiefly for lead.....	52	396	25	0.48	63	25
16	Valued chiefly for zinc.....	290	1,776	135	0.47	76	113
17	South, total.....	2,061	10,908	1,119	0.54	103	610
18	Valued chiefly for lead.....	152	1,110	126	0.83	114	1
19	Valued chiefly for zinc.....	1,909	9,798	993	0.52	101	609
20	Oklahoma, total.....	984	5,465	455	0.46	83	1
21	Valued chiefly for lead.....	149	1,107	126	0.85	114	1
22	Valued chiefly for zinc.....	835	4,358	329	0.39	75	...
23	Other States.....	1,077	5,443	664	0.62	122	609
24	Valued chiefly for zinc.....	1,074	5,440	664	0.62	122	609
25	Mountain, total.....	6,836	56,713	8,794	1.29	155	7,709
26	Valued chiefly for lead.....	4,039	36,666	4,207	1.04	115	4,038
27	Valued chiefly for zinc.....	2,797	20,047	4,587	1.64	229	3,671
28	Montana.....	1,600	9,501	1,727	1.08	182	1,352
29	Idaho, total.....	2,200	18,162	2,121	0.96	117	1,981
30	Valued chiefly for lead.....	1,668	15,008	1,744	1.05	116	1,607
31	Valued chiefly for zinc.....	532	3,154	377	0.71	120	374
32	Colorado.....	1,079	10,075	3,094	2.87	307	2,560
33	Utah.....	1,334	13,512	1,615	1.21	120	1,614
34	Nevada.....	205	1,018	34	0.17	33	29
35	New Mexico and Arizona.....	418	4,445	203	0.49	46	173
36	Pacific, total.....	308	2,958	809	2.63	273	795
37	Valued chiefly for lead.....	212	2,003	469	2.21	234	455
38	Valued chiefly for zinc.....	96	955	340	3.54	356	340
39	Washington.....	249	2,348	790	3.17	336	780
40	California.....	59	610	19	0.32	31	15
TYPE OF OPERATION							
Lead and Zinc Ores Industries							
41	Producing establishments, total.....	13,319	107,293	12,567	0.94	117	10,822
42	Mines only ²	3,908	31,112	644	0.16	21	557
43	Mines with producing mill.....	8,847	71,430	8,554	0.97	120	7,522
44	Mills only ³	564	4,751	3,369	5.97	709	2,743
45	Nonproducing establishments.....	273	116	7	0.03	60	7
46	Mills, total.....	9,411	76,181	11,923	1.27	157	10,265
47	Principal milling method:						
48	Flotation.....	8,110	68,947	10,855	1.34	157	9,384
49	Straight gravity.....	285	1,040	342	1.20	329	175
	Other ²	1,016	6,194	726	0.71	117	706
Valued Chiefly for Lead							
50	Producing establishments, total.....	7,010	62,516	5,023	0.72	80	4,715
51	Mines only ²	1,735	17,067	272	0.16	16	271
52	Mines with producing mill.....	5,176	43,714	3,145	0.61	72	2,963
53	Mills only ³	99	1,735	1,606	16.22	926	1,481
54	Nonproducing establishments.....	146	197	7	0.05	36	7

See footnotes at end of table.

LEAD AND ZINC ORES

10E-45

GEOGRAPHIC DIVISIONS AND STATES AND BY TYPE OF OPERATION: 1954

Mine water (million gallons)		Gross water use, including recircu- lation (million gallons)	Percent of total water intake (except mine water) by principal source							
Used	Drained and dis- charged		Public water systems	Company surface water systems	Company ground water systems	Combined public water and company surface water systems	Combined company surface and ground water systems	Combined public. water and company surface and ground water systems	Not specified	
9,575	35,997	37,623	5	73	9	(1)	12	1	(1)	1
5,985	23,293	18,212	2	88	8	...	1	...	1	2
3,590	12,704	19,411	6	64	10	(1)	18	2	(1)	3
1,924	5,290	3,486	...	90	10	...	(1)	...	...	4
1,924	5,289	3,486	...	90	10	...	(1)	...	...	5
794	1,781	1,095	...	...	100	...	...	...	...	6
1,130	3,509	2,391	...	90	10	...	...	...	...	7
4,556	4,643	12,885	(1)	45	50	...	2	...	3	8
3,996	4,027	11,240	1	88	...	...	...	...	11	9
560	616	1,645	...	27	71	...	2	...	...	10
4,292	4,222	12,224	(1)	49	51	...	...	...	...	11
3,996	3,996	11,215	1	99	...	...	...	...	...	12
296	226	1,009	...	24	76	...	...	...	...	13
264	421	661	...	31	46	...	8	...	15	14
...	31	25	...	...	...	...	...	...	100	15
264	390	636	...	37	54	...	9	...	...	16
898	4,678	9,186	(1)	88	...	3	...	9	...	17
...	...	176	1	99	...	...	...	...	...	18
898	4,678	9,010	(1)	86	...	3	...	11	...	19
230	292	7,808	(1)	71	...	6	...	23	...	20
...	...	176	1	99	...	...	...	...	...	21
230	292	7,632	...	60	...	8	...	32	...	22
668	4,386	1,378	1	99	...	...	...	...	...	23
668	4,386	1,378	1	99	...	...	...	...	...	24
2,197	21,232	11,183	5	72	7	...	16	...	(1)	25
1,989	19,213	6,324	2	86	10	...	2	...	(1)	26
208	2,019	4,859	7	58	5	...	30	...	(1)	27
12	350	1,739	20	1	...	...	79	...	(1)	28
323	4,280	2,554	(1)	91	6	...	3	...	(1)	29
320	2,741	2,174	(1)	93	3	...	4	...	...	30
3	1,539	380	...	80	18	...	...	...	2	31
755	1,936	3,849	3	96	1	...	...	...	(1)	32
746	13,752	2,379	...	83	17	...	...	...	...	33
250	560	284	59	38	3	...	...	...	...	34
111	354	378	...	...	100	...	...	...	...	35
...	154	883	17	81	2	...	...	...	...	36
...	52	472	...	96	4	...	...	...	...	37
...	102	411	40	60	...	...	...	...	...	38
...	154	861	17	83	...	...	...	...	...	39
...	...	22	...	...	100	...	...	...	...	40
9,572	35,298	37,613	5	73	9	(1)	12	1	(1)	41
505	18,619	1,170	53	5	42	...	(1)	...	...	42
7,454	15,129	26,070	3	86	9	(1)	1	1	(1)	43
41,613	41,550	10,373	...	54	4	...	41	(1)	1	44
3	699	10	...	100	...	...	...	...	...	45
9,067	16,679	36,443	2	77	8	(1)	12	1	(1)	46
8,247	14,620	30,713	2	78	6	...	14	...	(1)	47
446	399	4,450	...	47	14	8	...	31	...	48
374	1,660	1,280	...	80	19	...	...	...	1	49
5,982	22,609	18,202	2	88	8	...	1	...	1	50
503	13,985	796	(1)	1	99	...	...	...	...	51
5,479	8,624	15,731	3	91	4	...	2	...	(1)	52
...	...	1,675	...	96	2	...	...	...	2	53
3	684	10	...	100	...	...	...	...	...	54

Table 13.—WATER USE IN THE LEAD AND ZINC ORES INDUSTRIES, BY

	Geographic division, State, and type of operation	Number of production and develop- ment workers	Value added in mining (\$1,000)	Water intake (except mine water)			Water discharged (except mine water) (million gallons)
				Million gallons	Million gallons per production worker	Gallons per dollar value added	
1	Mills, total.....	5,275	45,449	4,751	0.90	105	4,444
	Principal milling method:						
2	Flotation.....	5,220	45,150	4,681	0.90	104	4,374
3	Straight gravity and other.....	55	299	70	1.27	234	70
	Valued Chiefly for Zinc						
4	Producing establishments, total.....	6,309	44,777	7,544	1.20	168	6,107
5	Mines only ²	2,173	14,045	372	0.17	26	286
6	Mines with producing mill.....	3,671	27,716	5,409	1.47	195	4,559
7	Mills only.....	465	3,016	1,763	3.79	585	1,262
8	Nonproducing establishments.....	127	(⁶)	...	...	...	...
9	Mills, total.....	4,136	30,732	7,172	1.73	233	5,821
	Principal milling method:						
10	Flotation.....	2,890	23,797	6,174	2.14	259	5,010
11	Magnetic and gravity, sink and float, and other..	1,246	6,935	996	0.80	144	811

¹Less than 0.5 percent.²Includes mines with nonproducing mills. See table 4, footnote 1.³Includes one mill with a nonproducing mine. See table 4, footnote 3.⁴Represents water obtained from associated but separately operated and separately reported mines.⁵See table 4, footnote 7.⁶See table 4, footnote 4.

GEOGRAPHIC DIVISIONS AND STATES AND BY TYPE OF OPERATION: 1954—Continued

Mine water (million gallons)		Gross water use, including recircu- lation (million gallons)	Percent of total water intake (except mine water) by principal source							
Used	Drained and dis- charged		Public water systems	Company surface water systems	Company ground water systems	Combined public water and company surface water systems	Combined company surface and ground water systems	Combined public water and company surface and ground water systems	Not specified	
5,479	8,624	17,406	2	93	3	...	1	...	1	1
5,414	8,561	17,271	2	94	2	...	1	...	1	2
65	63	135	...	31	69	...	...	...	...	3
3,590	12,689	19,411	6	64	10	(¹)	18	2	(¹)	4
2	4,634	374	92	7	1	...	(¹)	...	...	5
1,975	6,505	10,339	3	84	11	(¹)	(¹)	2	(¹)	6
41,613	41,550	8,698	...	15	6	...	78	1	...	7
...	15	...	...	...	...	...	...	...	...	8
3,588	8,055	19,037	2	67	10	(¹)	19	2	(¹)	9
2,833	6,059	13,442	2	66	10	...	22	...	...	10
755	1,996	5,595	...	72	14	3	...	10	1	11

Gold

This report shows 1954 Census of Mineral Industries statistics for establishments classified in Industries 1042 and 1043, Lode Gold and Placer Gold, respectively. The lode gold industry represents establishments primarily engaged in mining gold ores from lode deposits. In addition to ore dressing methods such as crushing, grinding, gravity concentration, and froth flotation, the lode gold industry uses amalgamation and cyanidation to produce mill bullion and precipitates at the mine or mill site. Establishments primarily engaged in smelting gold ores and refining of gold are classified in Industry 3339, Primary Smelting and Refining of Nonferrous Metals, Not Elsewhere Classified. The placer gold industry comprises establishments primarily engaged in the recovery of gold from placer deposits by such methods as dredging, hydraulicking, sluicing, and drift mining. The production of bullion at the mine, mill, or dredge site is included.

For Census purposes, establishments primarily producing complex ores from lode operations were classified in the lode gold industry if the estimated value of the recoverable gold content of materials produced or shipped was greater than the estimated value of any other metal contained. As a basis for classifying establishments producing complex ores, estimated unit values of recoverable metals, f.o.b. mine or mill, were derived by subtracting from the 1954 average market prices of such metals, in their smelted or refined form, typical smelting, refining, and transportation costs. Estimated unit values so derived were applied to the recoverable metal content of the complex ores, tailings, and concentrates reported to determine the metal of principal value for the establishment. For the unit values used in these computations and for a fuller discussion of this procedure, see the summary report, "Copper, Lead, Zinc, Gold, and Silver Ores." Use of this procedure for classification was not required, of course, in situations where ores were not complex and in the placer gold industry.

In 1939, the procedure used to determine industry classification for establishments producing complex lode ores was similar to that outlined above for the 1954 census. Since the price of gold per fine ounce did not change between 1939 and 1954, whereas the unit values of most other metals increased substantially, a number of establishments producing complex ores and classified in the lode gold industry in 1939 were classified in 1954 in the lead ores, zinc ores, or in other nonferrous metal ores industries. In addition, changes in establishment classification between 1939 and 1954 resulted from physical variations in metal content of ores mined or milled. In the placer gold industry, on the other hand, no change in establishment classification was occasioned by the fixed price of a fine ounce of gold between 1939 and 1954.

The total or gross value of shipments of the lode gold industry in 1954 in the United States amounted to \$28.5 million, including milling ore, valued at \$1.6 million, shipped for treatment to mills within the industry. Net shipments, that is, gross shipments less milling ore shipped, were valued at \$26.9 million, of which \$24.7 million, or 92 percent, was in the form of mill bullion and precipitates. Shipments of gold concentrates amounted to \$1.4 million and ores and old tailings shipped as direct-smelting materials, or shipped to ore buyers, were valued at but \$0.8 million. Secondary products shipped and receipts for services performed for others totaled only \$10 thousand. The total value of shipments of the industry in Alaska was only \$160 thousand.

The value of shipments of the placer gold industry in the United States, during 1954, was \$5.9 million, virtually all in the form of its primary product, gold. In addition, Alaskan shipments were valued at \$8.9 million, for a total value of shipments of \$14.8 million for the industry in the United States and Alaska.

During 1954, the total recoverable gold content of products of all mineral establishments in the United States was 1,584 thousand fine ounces, of which 48 percent was accounted for by the lode gold industry, about one-third by the copper ores industry, and slightly more than one-tenth by the placer gold industry. The lead and zinc ores industries contributed almost

all of the remainder, with small amounts from establishments in such industries as silver ores and tungsten ores and in the common sand and gravel subindustry. Operations in Alaska, nearly all placer, provided an additional 248 thousand fine ounces of recoverable gold content, raising the total in the United States and Alaska to 1,832 thousand fine ounces.

It should be emphasized that the general statistics shown in this report for such items as employment, payrolls, supplies, horsepower, capital expenditures, and energy and water use do not include the activities of establishments classified in other industries which produced goldbearing ores and concentrates as secondary products. Conversely, the general statistics for the gold industries include the production of secondary products and the performance of services for others, since these general statistics are reported for each establishment as a whole. These factors should be taken into account in comparing product figures shown for all mineral industries in Tables 5A, 5B, and 5C with the statistics for other items shown in this report.

The report forms used for the lode and placer gold industries by the Bureau of the Census for the 1954 Census of Mineral Industries also provided information required by the Bureau of Mines for its annual statistics on lode and placer gold. The Bureau of Mines statistics are, in general, comparable with those presented in this report. However, some differences occur in the statistics on products, arising principally from the differences in methods and objectives of the two bureaus in compiling and presenting the statistics. The reasons for such differences, to the extent that they pertain to gold statistics, are summarized below:

1. The statistics shown in this report on ores mined, milled, or shipped by lode gold establishments cover all ores and may, therefore, include small quantities of copper, lead, zinc, and silver ores in addition to gold ores. On the other hand, gold ores mined at establishments classified in other industries are excluded. The Bureau of Mines publishes figures on gold ores which include ores wherever mined, regardless of industry classification of the establishment mining such ores. As to complex ores, the principal metal value basis of the Bureau of the Census establishment classification has been described above. The Bureau of Mines' classification system is essentially an assay basis, developed from smelter practices in metal recovery and smelter settlement contracts.
2. The Bureau of Mines excluded from its 1954 statistics shipments made in January of that year if such shipments had been included in their 1953 statistics. Likewise, any shipments actually made during 1953, but not included in the Bureau of Mines' figures for that year, have been added to the 1954 figures. This is partly explained by the use by the Bureau of Mines in some instances of receipts at smelters rather than shipments from the mine. Statistics shown in this report pertain, on the other hand, to mine or mill operations actually performed during 1954.
3. The Bureau of Mines has included in its statistics on recoverable gold that recovered from old slag at the smelters and smelter cleanings if the gold recovered therefrom was not included in earlier year statistics. The Bureau of the Census did not include either of these types of gold recovery but, as indicated, included only gold mined or milled or shipped during 1954.
4. Figures for establishments with value of shipments less than \$500 were excluded unless the expenses for development and maintenance amounted to \$500 or more. The Bureau of Mines includes the production from all domestic sources, regardless of size of operations.
5. Part of the differences in statistics by State arises from the fact that concentrates produced in one State from ores mined in another were assigned by the Bureau of Mines to the State in which the mine was located, whereas the Bureau of the Census included such concentrates in the statistics for the State in which milled.

Table 1.—COMPARATIVE STATISTICS FOR THE LODE AND PLACER GOLD INDUSTRIES IN THE UNITED STATES: 1954, 1939, AND 1929
(For explanation of line captions and for statement on the minimum size of establishment included for each year, see INTRODUCTION)

Item	1954			1939 ¹			1929 ¹		
	Total	Lode	Placer	Total	Lode	Placer	Total	Lode	Placer
Number of operating companies.....	417	286	131	1,158	851	307	(NA)	(NA)	(NA)
Number of establishments.....	434	298	136	(NA)	(NA)	(NA)	206	174	32
Number of mines.....	427	291	136	1,212	872	340	221	184	37
Number of mills and washing plants.....	251	135	116	672	333	339	(NA)	² 75	(NA)
Crude ore mined.....1,000 short tons..	2,248	2,248	xxx	11,343	11,343	xxx	(NA)	(NA)	xxx
Direct-smelting ores shipped ³.....do...	67	67	xxx	503	503	xxx	(NA)	(NA)	xxx
Crude ore and old tailings milled.....do...	2,197	2,197	xxx	11,406	11,406	xxx	(NA)	(NA)	xxx
Material washed.....1,000 cu. yds..	50,888	xxx	50,888	205,793	xxx	205,793	(NA)	xxx	(NA)
Placer gold shipped.....1,000 fine ounces..	169.1	xxx	169.1	⁴ 824.6	xxx	⁴ 824.6	(NA)	xxx	(NA)
Gold concentrates produced.....1,000 short tons..	4	4	xxx	⁵ 154	xxx	xxx	(NA)	(NA)	xxx
Recoverable gold content of products ⁶.....1,000 fine ounces..	935.8	766.7	169.1	3,273.0	2,448.4	824.6	(NA)	(NA)	(NA)
Value of shipments, total ⁷.....\$1,000..	34,433	28,517	5,916	120,969	92,942	28,027	(NA)	(NA)	3,779
Milling ores.....do...	1,625	1,625	xxx	6,878	6,878	xxx	(NA)	(NA)	xxx
Value of net shipments.....do...	32,808	26,892	5,916	114,091	86,064	28,027	21,429	17,650	3,779
Direct-smelting ores ³.....do...	757	757	xxx	6,352	6,352	xxx			
Concentrates.....do...	1,429	1,429	xxx	14,466	14,466	xxx	17,631	17,631	xxx
Mill bullion and precipitates.....do...	24,696	24,696	xxx	64,989	64,989	xxx			
Placer gold.....do...	5,898	xxx	5,898	⁸ 27,992	xxx	⁸ 27,992	3,770	xxx	3,770
Other products and services ⁸.....do...	28	10	18	292	257	35	28	19	9
Value added in mining.....do...	25,498	21,884	3,614	88,458	66,523	21,935	14,295	11,713	2,582
Number of persons engaged, total.....	4,029	3,300	729	23,765	19,800	3,965	⁹ 6,571	⁹ 5,885	⁹ 686
Production and development workers.....	3,135	2,634	501	20,819	17,591	3,228	5,931	5,353	578
All other employees.....	441	386	55	2,140	1,663	477	⁹ 533	⁹ 443	⁹ 90
Proprietors and firm members.....	453	280	173	806	546	260	107	89	18
Performing manual labor.....	368	223	145	587	420	167	(NA)	(NA)	(NA)
Man-hours worked by production and development workers, total.....1,000..	7,149	5,894	1,255	¹⁰ 49,610	¹⁰ 41,522	8,088			
At mine, total.....do...	6,332	5,120	1,212	¹¹ 42,588	¹² 34,500	¹¹ 8,088			
Underground (mining and development).....do...	3,292	3,271	21		26,304				
Open-pit and surface mining and stripping ¹³.....do...	300	115	185	¹¹ 42,588	1,086	¹¹ 8,088	(NA)	(NA)	(NA)
On floating equipment.....do...	722	xxx	722		xxx				
Other surface (including mine shops and yards) ¹⁴.....do...	2,018	1,734	284		6,439				
At mill or washing plant.....do...	817	774	43	¹¹ 6,782	6,782	(¹¹)			
Recoverable gold content per man-hour...fine ounces..	0.13	0.13	0.13	0.07	0.06	0.10	(NA)	(NA)	(NA)
Principal expenses designated below, total...\$1,000..	24,984	20,169	4,815	¹⁵ 63,802	¹⁵ 50,916	12,886	⁹ 1518,151	⁹ 1515,724	⁹ 2,427
Wages of production and development workers.....do...	12,403	10,406	1,997	32,936	27,304	5,632	9,626	8,656	970
Salaries of all other employees.....do...	2,177	1,863	314	5,233	4,071	1,162	⁹ 1,391	⁹ 1,131	⁹ 260
Crude ore and old tailings received for milling.....do...	1,274	1,274	xxx	(NA)	(NA)	xxx	(NA)	(NA)	xxx
Supplies.....do...	6,571	5,017	1,554	17,537	13,757	3,780	4,703	4,113	590
Fuel.....do...	817	569	248	2,117	1,417	700	437	436	1
Purchased electric energy.....do...	1,381	720	661	4,818	3,347	1,471	1,436	832	604
Contract work.....do...	361	320	41	1,161	1,020	141	558	556	2
Purchased machinery installed.....do...	1,212	910	302	(NA)	(NA)	(NA)	1,444	1,085	359
Capital expenditures, total.....do...	2,681	2,177	504	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Development and exploration of mineral property.....do...	1,217	1,037	180	(NA)	(NA)	(NA)	3,815	3,739	76
Mill and washing plant construction.....do...	404	370	34						
Other construction.....do...	212	194	18	1,861	1,726	135	(NA)	(NA)	(NA)
New machinery and equipment.....do...	507	386	121	6,587	3,239	3,348			
Used plant and equipment.....do...	341	190	151	1,007	566	442			
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	175,836	111,868	63,968	401,666	291,232	110,434	90,109	69,829	20,280
Per production worker.....	56	42	128	19	17	34	15	13	35
Prime movers.....	92,573	63,906	28,667	179,298	126,772	52,526	32,075	31,486	589
Electric motors driven by purchased energy.....	83,263	47,962	35,301	222,368	164,460	57,908	58,034	38,343	19,691
Horsepower rating of electric motors driven by energy generated at the establishment.....	54,027	49,571	4,456	52,850	49,128	3,722	22,236	22,211	25

See footnotes at end of table.

Table 1.--COMPARATIVE STATISTICS FOR THE LODE AND PLACER GOLD INDUSTRIES IN THE UNITED STATES: 1954, 1939, AND 1929--Continued
(For explanation of line captions and for statement on the minimum size of establishment included for each year, see INTRODUCTION)

Item	1954			1939 ¹			1929 ¹		
	Total	Lode	Placer	Total	Lode	Placer	Total	Lode	Placer
Energy used.....million kwh equivalent..	809	639	170	2,134	1,624	510	1,066	997	69
Coal.....1,000 short tons..	62	62	...	111	110	1	119	119	...
Fuel oils.....1,000 barrels..	70	24	46	314	170	144	12	12	...
Natural gas.....million cu. ft..	68	68	...	206	183	23	6	6	...
Electric energy purchased.....million kwh..	142	63	79	533	343	190	120	52	68
Electric energy generated and used.....do....	72	62	10	108	90	18	57	57	...

xxx Not applicable.

NA Not available.

¹Figures for 1929, except data for number of establishments and number of mines, exclude nonproducing operations. Statistics for nonproducing operations for 1929 are available only for the copper, lead, zinc, gold, and silver ores industries as a group. For that year, employment and principal expenses for nonproducing operations for this group as a whole were about five percent of the comparable figures for producing operations. For 1939, all data for nonproducing gold operations are included under the lode gold industry although they include data for one nonproducing placer gold mine. In addition, there were in 1939 nine nonproducing operations, with an employment of 46 and principal expenses of \$92,000, classified in the copper, lead, zinc, gold, and silver ores group but not identified by individual industry.

²Excludes mills which may have been operated at 60 small lode gold establishments reported on an abbreviated schedule.

³For 1954, includes small quantities of old tailings shipped to smelters and ore sold to ore buyers. For 1939, represents production.

⁴Represents production.

⁵For 1939, includes copper, lead, zinc, and silver concentrates, if any, produced by the lode gold industry from the crude ore and old tailings treated. Figures for the latter concentrates are not available separately. In 1954, no concentrates other than gold were reported.

⁶For 1954, for the lode gold industry, represents the recoverable gold content of ore and old tailings shipped to smelters and to ore buyers, concentrates produced, and mill bullion and precipitates shipped. Only the recoverable content of concentrates produced was reported for 1954, but the tonnage of concentrates produced exceeded the tonnage shipped by less than 0.5 percent. For placer, represents shipments. Figures for 1939 represent recoverable content of production and have been revised to include the recoverable content of concentrates, bullion, and precipitates produced from purchased and custom milling ores, rather than the recoverable content of such ores shipped during the year.

⁷The total, or gross, value of shipments contains duplication since it includes the value of milling ore shipped as well as the value of concentrates and mill bullion and precipitates produced from such ore. The net value of shipments, obtained by subtracting the value of milling ore shipped, excludes this duplication. Figures for "net value" for 1939 and 1929 represent production. The values of concentrates and of mill bullion and precipitates for 1939 have been revised, for approximate comparability with 1954, by inclusion of the value of milling ore shipped, value added by milling purchased ores, and receipts for custom milling. It is recognized that, to the extent that any milling ores were shipped to establishments in other industries, or were received from such establishments, this adjustment is subject to error. This adjustment, which has been made in the statistics by States in later tables, would similarly be affected by interstate shipments of milling ore. For the basis of apportionment of the value of milling ore shipped, value added in milling purchased ore, and receipts for custom milling between concentrates and mill bullion and precipitates, see table 5A, footnote 4.

⁸For 1954, represents silver recovered with gold from placer gravels, sand and gravel, tungsten concentrates, electric energy sold, and services performed for others. For 1939, the value of silver recovered with gold from placer gravels is included with the value of placer gold.

⁹Excludes employees at central offices maintained independently of mine offices. Statistics for these workers are available only for the copper, lead, zinc, gold, and silver ores industries as a group and not separately by industry. There were a total of 301 such employees paid \$1,598,000 in salaries for this group of industries.

¹⁰Includes for lode gold 240,000 man-hours worked on inactive days. Such man-hours were omitted from the detail for man-hours at mine and mill.

¹¹Man-hours at the washing plant in the placer gold industry are included with man-hours at mine.

¹²Includes 671,000 man-hours for nonproducing operations. Such man-hours are not available by mine department.

¹³For placer gold, the figures were reported as "Surface, other than shops and yards or on floating equipment."

¹⁴For placer gold, represents "mine shops and yards" only.

¹⁵Excludes the cost of crude ore and old tailings received for milling.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 2.—COMPARATIVE STATISTICS FOR THE LODE AND PLACER GOLD INDUSTRIES IN THE UNITED STATES,
BY GEOGRAPHIC DIVISIONS AND STATES: 1954, 1939, AND 1929(For explanation of column captions, see INTRODUCTION. For 1929, excludes nonproducing operations¹)

Industry, State, and year	Number of mines	Value of shipments ² (\$1,000)	Number of employees		Designated principal expenses (\$1,000)						Aggregate horse-power rating of power equipment
			Production and development workers	All other employees	Wages of production and development workers	Salaries of all other employees	Supplies and crude ore and old tailings received for milling ³	Fuel	Purchased electric energy	Contract work	
United States, total											
1954.....	427	34,433	3,135	441	12,403	2,177	7,845	817	1,381	361	175,836
1939 ⁴	1,212	120,969	20,819	2,140	32,936	5,233	17,537	2,117	4,818	1,161	401,666
1929.....	221	21,429	5,931	533	9,626	1,391	4,703	437	1,436	558	90,109
Lode											
1954.....	291	28,517	2,634	386	10,406	1,863	6,291	569	720	320	111,868
1939 ⁴	872	92,942	17,591	1,663	27,304	4,071	13,757	1,417	3,347	1,020	291,232
1929.....	184	17,650	5,353	443	8,656	1,131	4,113	436	832	556	69,829
Placer											
1954.....	136	5,916	501	55	1,997	314	1,554	248	661	41	63,968
1939 ¹	340	28,027	3,228	477	5,632	1,162	3,780	700	1,471	141	110,434
1929.....	37	3,779	578	90	970	260	590	1	604	2	20,280
West North Central (South Dakota) ⁵											
1954.....	6	19,088	1,549	222	6,458	1,134	3,588	355	137	5	37,346
1939.....	8	21,675	2,238	217	4,366	751	1,565	249	133	...	39,619
1929.....	2	6,591	1,304	84	2,269	305	1,316	146	...	...	21,530
South Atlantic (Virginia, North Carolina, South Carolina, and Georgia) ⁶											
1954.....	3	13	...	...	...	1	3	...	...	3	...
1939.....	8	516	179	35	112	96	122	21	23	30	3,346
Mountain, total											
1954.....	217	5,301	542	83	1,836	287	1,966	336	226	228	48,435
1939 ⁴	715	45,747	9,323	1,037	13,330	2,129	7,545	984	1,981	977	163,875
1929 ⁷	130	7,210	2,468	263	3,956	601	1,806	270	517	178	26,368
Lode											
1954.....	170	4,369	458	72	1,513	238	1,672	132	226	222	33,209
1939 ⁴	612	40,513	8,630	935	12,173	1,924	6,991	809	1,737	884	136,547
1929 ⁷	124	7,118	2,422	253	3,903	589	1,786	269	501	177	25,197
Placer											
1954.....	47	932	84	11	323	49	294	204	...	6	15,226
1939.....	103	5,234	693	102	1,157	205	554	175	244	93	27,328
1929 ⁷	6	92	46	10	53	12	20	1	16	1	1,171
Montana											
1954.....	32	151	41	4	119	14	84	17	1	2	4,358
1939.....	142	7,412	1,774	172	2,538	368	1,226	164	278	94	34,532
1929.....	9	444	196	18	271	48	124	3	32	...	2,015
Idaho, total											
1954.....	36	340	61	8	233	39	112	46	7	33	8,196
1939.....	65	3,450	766	100	1,083	190	571	125	85	14	15,440
Lode											
1954.....	21	105	39	6	8180	(⁸)	65	949	(⁹)	(⁹)	4,583
1939.....	38	1,853	566	73	741	130	433	72	22	4	7,837
Placer											
1954.....	15	235	22	2	892	(⁸)	47	937	(⁹)	(⁹)	3,613
1939.....	27	1,597	200	27	342	60	138	53	63	10	7,603
Colorado											
1954.....	65	3,264	272	46	908	124	1,381	29	212	128	17,175
1939.....	198	15,741	3,067	354	4,291	629	2,589	264	782	165	48,045
1929 ¹⁰	53	4,057	1,497	148	2,419	328	996	231	315	163	11,414
Nevada, total											
1954.....	37	1,469	110	18	435	84	366	227	1139	(11)	12,879
1939 ⁴	159	9,995	1,655	197	2,649	492	1,594	216	448	568	35,100
1929.....	32	1,569	363	44	580	116	400	19	75	...	5,620
Lode											
1954.....	28	866	66	15	8310	(⁸)	163	70	1139	(11)	6,016
1939 ⁴	143	8,999	1,528	184	2,459	468	1,494	194	380	517	30,718
1929.....	32	1,569	363	44	580	116	400	19	75	...	5,620
Placer ¹²											
1954.....	9	603	44	3	8209	(⁸)	203	157	...	...	6,863
1939.....	16	996	127	13	190	24	100	22	68	31	4,382

See footnotes at end of table.

Table 2.—COMPARATIVE STATISTICS FOR THE LODE AND PLACER GOLD INDUSTRIES IN THE UNITED STATES,
BY GEOGRAPHIC DIVISIONS AND STATES: 1954, 1939, AND 1929—Continued(For explanation of column captions, see INTRODUCTION. For 1929, excludes nonproducing operations¹)

Industry, State, and year	Number of mines	Value of shipments ² (\$1,000)	Number of employees		Designated principal expenses (\$1,000)						Aggregate horse-power rating of power equipment
			Production and development workers	All other employees	Wages of production and development workers	Salaries of all other employees	Supplies and crude ore and old tailings received for milling ³	Fuel	Purchased electric energy	Contract work	
Mountain—Continued											
Wyoming, New Mexico, Arizona, and Utah, total											
1954.....	47	77	58	7	141	26	23	17	5	27	5,827
1939 ⁴	151	9,149	2,061	214	2,769	450	1,565	215	388	136	30,758
1929 ¹³	36	1,140	412	53	686	109	286	17	95	15	7,319
Pacific, total											
1954.....	201	10,031	1,044	136	4,109	755	2,288	126	1,018	125	90,055
1939 ⁴	481	53,031	9,022	847	15,076	2,251	8,291	858	2,681	154	194,266
1929.....	89	7,628	2,159	186	3,401	485	1,581	21	919	380	42,211
Lode											
1954.....	112	5,047	627	92	2,435	490	1,028	82	357	90	41,313
1939 ⁴	247	30,249	6,492	479	10,604	1,310	5,066	334	1,454	106	111,665
1929.....	58	3,941	1,627	106	2,484	237	1,011	21	331	379	23,102
Placer											
1954.....	89	4,984	417	44	1,674	265	1,260	44	661	35	48,742
1939.....	234	22,782	2,530	368	4,472	941	3,225	524	1,227	48	82,601
1929 ¹⁴	31	3,687	532	80	917	248	570	...	588	1	19,109
California, total											
1954.....	164	8,309	911	108	3,536	580	1,925	107	932	99	83,754
1939.....	409	48,783	8,119	754	13,866	2,044	7,415	686	2,551	151	178,132
1929.....	85	7,411	2,118	181	3,323	475	1,559	21	892	379	40,773
Lode											
1954.....	91	3,501	515	64	1,933	315	733	68	301	66	37,049
1939.....	209	27,904	5,844	423	9,823	1,195	4,553	253	1,388	105	102,742
1929.....	58	3,941	1,627	106	2,484	237	1,011	21	331	379	23,102
Placer											
1954.....	73	4,808	396	44	1,603	265	1,192	39	631	33	46,705
1939.....	200	20,879	2,275	331	4,043	849	2,862	433	1,163	46	75,390
1929.....	27	3,470	491	75	839	238	548	...	561	...	17,671
Washington and Oregon, total											
1954.....	37	1,722	133	28	573	175	363	19	86	26	6,301
1939 ⁴	72	4,248	903	93	1,210	207	876	172	130	3	16,134
1929 ¹⁴	4	217	41	5	78	10	22	...	27	1	1,438
Lode											
1954.....	21	1,546	112	28	502	175	295	14	56	24	4,264
1939 ⁴	38	2,345	648	56	781	115	513	81	66	1	8,923
Placer											
1954.....	16	176	21	...	71	...	68	5	30	2	2,037
1939.....	34	1,903	255	37	429	92	363	91	64	2	7,211
1929 ¹⁴	4	217	41	5	78	10	22	...	27	1	1,438

¹See table 1, footnote 1.²For 1954 and 1939, figures for combined lode and placer and for lode gold alone represent gross value of shipments. For placer operations there is no difference between figures for gross and net values. For explanation of "gross" and "net" values see table 1, footnote 7.³For 1939 and 1929 excludes cost of crude ore and old tailings received for milling. Such data are not available.⁴Except for number of mines, figures for nonproducing lode gold operations in New Mexico, Nevada, Washington, and Oregon were not available separately for 1939. There were 2 nonproducing mines in New Mexico, 1 in Nevada, 1 in Washington, and 1 in Oregon. Combined figures for these States are included in the United States totals but are excluded from the totals for Mountain and Pacific as well as from the figures for these States. See also table 1, footnote 1.⁵Lode gold industry only. No placer gold operations were reported.⁶For 1954, represents North Carolina and Georgia. For 1939, represents Virginia, South Carolina, and Georgia. For 1929, lode gold activities were reported in North Carolina only. Figures for the latter operations are included in the combined lode gold figures for Wyoming, New Mexico, Arizona, and Utah.⁷Total and lode figures include also data for North Carolina, Washington, and Oregon. Placer figures include also data for Washington.⁸Figures for salaries are included with those for wages.⁹Figures for purchased electric energy and contract work are included with those for fuel.¹⁰Excludes data for placer operations. These are included in combined figures for Wyoming, New Mexico, Arizona, and Utah.¹¹Figures for cost of contract work are combined with figures for cost of purchased electric energy.¹²No placer mines were reported for 1929.¹³Includes also lode gold figures for North Carolina, lode and placer gold figures for Idaho, Washington, and placer gold figures for Colorado and Oregon.¹⁴Excludes data for placer operations in Washington. These are included in the combined figures for Wyoming, New Mexico, Arizona, and Utah.

Table 3.—DETAILED STATISTICS FOR THE LODE AND PLACER GOLD INDUSTRIES IN

(For explanation of line

Item	United States and Alaska			United States			West North Central (South Dakota, lode only)	South Atlantic (North Carolina and Georgia)
	Total	Lode	Placer	Total	Lode	Placer		
1 Number of operating companies.....	571	301	271	417	286	131	6	3
2 Number of establishments.....	594	313	281	434	298	136	6	3
3 Number of mines.....	586	305	281	427	291	136	6	3
4 Number of mills and washing plants.....	393	144	249	251	135	116	4	3
5 Crude ore mined.....1,000 short tons..	2,249	2,249	xxx	2,248	2,248	xxx	1,601	(1)
6 From underground operations.....do....	2,000	2,000	xxx	1,999	1,999	xxx	1,601	...
7 From open-pit operations.....do....	249	249	xxx	249	249	xxx	...	(1)
8 Material stripped.....1,000 cu. yds..	10,327	xxx	10,327	720	xxx	720	xxx	...
9 Direct-smelting ore shipped ².....1,000 short tons..	67	67	xxx	67	67	xxx	...	...
10 Crude ore and old tailings milled.....do....	(D)	(D)	xxx	2,197	2,197	xxx	1,601	...
11 Material washed.....1,000 cu. yds..	54,813	xxx	54,813	50,888	xxx	50,888	...	...
12 Placer gold shipped.....1,000 fine ounces..	³ 416.2	xxx	³ 416.2	169.1	xxx	169.1	...	...
13 Gold concentrates produced.....1,000 short tons..	(D)	(D)	xxx	4	4	xxx	...	(1)
14 Recoverable gold content of products ⁴.....1,000 fine ounces..	1,183.8	767.6	³ 416.2	935.8	766.7	169.1	541.4	0.3
15 Value of shipments, total ⁵.....\$1,000..	43,458	28,677	14,781	34,433	28,517	5,916	19,088	13
16 Milling ore.....do....	(6)	(6)	xxx	1,625	1,625	xxx	...	...
17 Value of net shipments ⁵.....do....	(D)	(D)	14,781	32,808	26,892	5,916	19,088	13
18 Direct-smelting ore ⁸.....do....	757	757	xxx	757	757	xxx	...	...
19 Gold concentrates.....do....	627,920	627,920	xxx	1,429	1,429	xxx	...	...
20 Mill bullion and precipitates.....do....	xxx	xxx	24,696	xxx	24,696	xxx	19,088	13
21 Placer gold.....do....	614,781	xxx	14,781	5,898	xxx	5,898	...	...
22 Other products and services ¹⁰.....do....	28	(6)	28	10	10	18	...	...
23 Value added in mining.....do....	32,309	22,003	10,306	25,498	21,884	3,614	15,439	7
24 Number of persons engaged, total.....	5,056	3,358	1,698	4,029	3,300	729	1,773	4
25 Production and development workers.....	3,822	2,670	1,152	3,135	2,634	501	1,549	...
26 All other employees.....	558	390	168	441	386	55	222	...
27 Proprietors and firm members.....	676	298	378	453	280	173	2	4
28 Performing manual labor.....	568	240	328	368	223	145	...	4
29 Man-hours worked by production and development workers, total.....1,000..	8,998	5,988	3,010	7,149	5,894	1,255	3,452	...
30 At mines, total.....do....	8,098	5,214	2,884	6,332	5,120	1,212	3,106	...
31 Underground (mining and development).....do....	3,304	(D)	(D)	3,292	3,271	21	1,843	...
32 Open-pit and surface mining and stripping ¹¹.....do....	1,317	115	1,202	300	115	185	1	...
33 On floating equipment.....do....	1,165	xxx	1,165	722	xxx	722	xxx	xxx
34 Other surface (including mine shops and yards) ¹².....do....	2,312	(D)	(D)	2,018	1,734	284	1,262	...
35 At mills and washing plants.....do....	900	774	126	817	774	43	346	...
36 Man-hours spent in development and exploration work (included above).....do....	986	893	93	955	884	71	226	...
37 Recoverable gold content of products per man-hour.....fine ounces..	0.13	0.13	0.14	0.13	0.13	0.13	0.16	(13)
38 Net value of shipments per man-hour.....\$1..	(14)	(14)	4.91	4.59	4.56	4.71	5.53	(13)
39 Principal expenses designated below, total.....\$1,000..	32,319	20,417	11,902	24,984	20,169	4,815	11,677	7
40 Wages of production and development workers.....do....	16,242	10,600	5,642	12,403	10,406	1,997	6,458	...
41 Salaries of all other employees.....do....	2,982	1,875	1,107	2,177	1,863	314	1,134	1
42 Crude ore and old tailings received for milling.....do....	1,274	1,274	xxx	1,274	1,274	xxx	...	...
43 Supplies.....do....	8,002	5,046	2,956	6,571	5,017	1,554	3,588	3
44 Fuel.....do....	2,002	1,622	2,197	817	569	248	355	...
45 Purchased electric energy.....do....	1,381	1,381	720	661	661	137	...	...
46 Contract work.....do....	436	361	320	41	41	5	3	...
47 Purchased machinery installed.....do....	1,580	915	665	1,212	910	302	323	...
48 Capital expenditures, total.....do....	3,526	2,183	1,343	2,681	2,177	504	759	...
49 Development and exploration of mineral property.....do....	1,297	1,043	254	1,217	1,037	180	231	...
50 Mill and washing plant construction.....do....	494	370	124	404	370	34	243	...
51 Other construction.....do....	352	194	158	212	194	18	119	...
52 New machinery and equipment.....do....	824	386	438	507	386	121	157	...
53 Used plant and equipment.....do....	559	190	369	341	190	151	9	...
54 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	284,322	135,471	148,851	175,836	111,868	63,968	37,346	...
55 Per production worker.....	74	51	129	56	42	128	24	...
56 Prime movers.....	201,010	87,509	113,501	92,573	63,906	28,667	26,912	...
57 Electric motors driven by purchased energy.....	83,312	47,962	35,350	83,263	47,962	35,301	10,434	...
58 Horsepower rating of electric motors driven by energy generated at the establishment.....	102,316	62,196	40,120	54,027	49,571	4,456	47,152	...
59 Energy used.....million kwh equivalent..	1,360	642	718	809	639	170	521	...
60 Coal.....1,000 short tons..	(D)	62	(D)	62	62	...	61	...
61 Fuel oils.....1,000 barrels..	116	25	91	70	24	46	3	...
62 Natural gas.....million cu. ft..	68	68	...	68	68	...	67	...
63 Electric energy purchased.....million kwh..	142	63	79	142	63	79	14	...
64 Electric energy generated and used.....	114	68	46	72	62	10	57	...
65 Water intake, including mine water used.....million gallons..	49,968	4,380	45,588	15,029	4,277	10,752	2,711	...
66 Per production worker.....do....	13.07	1.64	39.57	4.79	1.62	21.46	1.75	...

THE UNITED STATES, BY GEOGRAPHIC DIVISIONS AND STATES, AND IN ALASKA: 1954

captions, see INTRODUCTION)

Mountain														
Total			Montana	Idaho			Colorado	Nevada			Wyoming, New Mexico, Arizona, and Utah	Pacific, total		
Total	Lode	Placer		Total	Lode	Placer		Total	Lode	Placer		Total	Lode	Placer
212	167	45	31	36	22	14	63	37	28	9	46	197	110	87
222	175	47	32	37	22	15	67	38	29	9	48	203	114	89
217	170	47	32	36	21	15	65	37	28	9	47	201	112	89
107	61	46	15	24	9	15	29	25	16	9	14	137	67	70
343	343	xxx	7	5	5	xxx	157	170	170	xxx	4	304	304	xxx
121	121	xxx	7	5	5	xxx	102	3	3	xxx	4	277	277	xxx
222	222	xxx	...	(1)	(1)	xxx	55	167	167	xxx	(1)	27	27	xxx
597	xxx	597	400	155	xxx	155	2	10	xxx	10	30	123	xxx	123
14	14	xxx	4	(1)	(1)	xxx	(1)	6	6	xxx	4	53	53	xxx
345	345	xxx	1	5	5	xxx	(D)	196	196	xxx	(D)	251	251	xxx
4,197	xxx	4,197	86	1,079	xxx	1,079	17	3,014	xxx	3,014	1	46,691	xxx	46,691
26.5	xxx	26.5	(D)	(D)	(D)	(D)	(D)	17.1	xxx	17.1	(D)	142.6	xxx	142.6
(1)	(1)	xxx	(1)	(1)	(1)	(1)	(1)	(1)	(1)	xxx	(1)	4	4	xxx
109.1	82.6	26.5	4.4	9.1	(D)	(D)	51.7	40.9	23.8	17.1	3.0	285.0	142.4	142.6
5,301	4,369	932	151	340	105	235	3,264	1,469	866	603	77	10,031	5,047	4,984
1,465	1,465	xxx	...	(6)	(6)	xxx	1,456	2	2	xxx	(7)	160	160	xxx
3,836	2,904	932	151	(D)	(D)	235	1,808	1,467	864	603	(D)	9,871	4,887	4,984
257	257	xxx	982	6105	6105	xxx	1,765	864	864	xxx	57	9,510	9,510	xxx
2,647	2,647	xxx	69	6105	6105	xxx	1,765	864	864	xxx	720	4,377	4,377	xxx
923	xxx	923	(9)	6235	xxx	235	43	600	xxx	600	...	4,975	xxx	4,975
9	(9)	9	(9)	6235	xxx	235	43	3	...	3	...	9	(9)	9
3,244	2,763	481	159	370	195	175	1,823	787	546	241	105	6,808	3,675	3,133
840	694	146	81	93	56	37	379	170	115	55	117	1,412	829	583
542	458	84	41	61	39	22	272	110	66	44	58	1,044	627	417
83	72	11	4	8	6	2	46	18	15	3	7	136	92	44
215	164	51	36	24	11	13	61	42	34	8	52	232	110	122
174	129	45	32	22	10	12	40	35	28	7	45	190	90	100
1,209	1,002	207	82	135	81	54	621	274	157	117	97	2,488	1,440	1,048
943	767	176	70	113	76	37	470	215	101	114	75	2,283	1,247	1,036
528	526	2	58	69	69	...	340	11	11	...	50	921	902	19
163	93	70	6	6	...	6	6	133	90	43	12	136	21	115
79	xxx	79	2	21	xxx	21	...	56	xxx	56	...	643	xxx	643
173	148	25	4	17	7	10	124	15	...	15	13	583	324	259
266	235	31	12	22	5	17	151	59	56	3	22	205	193	12
327	298	29	47	48	48	...	164	22	16	6	46	402	360	42
0.09	0.08	(13)	(13)	(13)	(14)	(14)	0.08	0.15	(13)	0.15	(13)	0.11	0.10	0.14
3.17	2.90	(13)	(13)	(14)	(14)	(13)	2.91	5.35	(13)	5.29	(14)	3.97	3.39	4.76
4,879	4,003	876	237	470	294	176	2,782	1,151	582	569	239	8,421	4,482	3,939
1,836	1,513	323	119	233	180	92	908	435	310	209	141	4,109	2,435	1,674
287	238	49	14	39	...	124	124	84	...	...	26	755	490	265
1,966	1,672	xxx	...	112	65	xxx	1,381	...	...	xxx	...	2,288	1,028	xxx
336	132	204	17	46	...	47	...	366	163	203	23	...	...	1,260
226	226	...	1	7	...	...	29	227	70	157	17	126	82	44
228	222	6	2	33	...	...	212	39	39	...	5	1,018	357	661
523	330	193	93	55	22	33	151	165	134	31	59	125	90	35
1,222	976	246	205	283	226	57	460	115	86	29	159	366	257	109
690	614	76	117	224	198	26	263	37	34	3	49	700	442	258
105	100	5	7	...	...	...	32	18	...	...	51	192	124	49
33	30	3	...	...	...	...	22	6	...	...	27	90	45	29
210	123	87	20	39	28	...	90	36	13	23	...	60	106	34
184	109	75	61	20	...	20	53	18	18	...	32	148	72	76
48,435	33,209	15,226	4,358	8,196	4,583	3,613	17,175	12,879	6,016	6,863	5,827	90,055	41,313	48,742
89	73	(13)	(13)	(13)	118	(13)	63	117	(13)	156	(13)	86	66	117
32,722	19,184	13,538	3,573	6,561	3,348	3,213	6,228	12,242	5,556	6,686	4,118	32,939	17,810	15,129
15,713	14,025	1,688	785	1,635	1,235	400	10,947	637	460	177	1,709	57,116	23,503	33,613
6,250	1,837	4,413	563	2,070	782	1,288	...	3,617	1,055	2,562	...	625	582	43
137	60	77	5	11	3	8	29	87	22	65	5	151	58	93
1	1	...	...	...	...	...	1	...	...	...	...	...	...	...
57	15	42	2	4	1	3	1	49	(D)	(D)	1	10	6	4
1	1	...	...	...	...	...	1	...	...	...	...	...	...	...
13	13	...	...	...	...	...	13	...	...	...	...	115	36	79
14	4	10	...	1	...	1	...	13	4	9	...	1	1	...
2,065	362	1,703	37	870	12	858	300	856	168	688	2	10,253	1,204	9,049
3.81	0.79	(13)	(13)	(13)	0.31	(13)	1.10	7.78	(13)	15.64	(13)	9.82	1.92	21.70

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 3.—DETAILED STATISTICS FOR THE LOBE AND PLACER GOLD INDUSTRIES IN THE UNITED STATES, BY GEOGRAPHIC DIVISIONS AND STATES, AND IN ALASKA: 1954—Continued

(For explanation of line captions, see INTRODUCTION)

Item	Pacific—Continued						Alaska		
	California			Washington and Oregon					
	Total	Lode	Placer	Total	Lode	Placer	Total	Lode	Placer
Number of operating companies.....	161	89	72	36	21	15	154	15	140
Number of establishments.....	166	93	73	37	21	16	160	15	145
Number of mines.....	164	91	73	37	21	16	159	14	145
Number of mills and washing plants.....	109	53	56	28	14	14	142	9	133
Crude ore mined.....1,000 short tons..	193	193	xxx	111	111	xxx	1	1	xxx
From underground operations.....do....	166	166	xxx	111	111	xxx	1	1	xxx
From open-pit operations.....do....	27	27	xxx	(1)	(1)	xxx	...	...	xxx
Material stripped.....1,000 cu. yds..	120	xxx	120	3	xxx	3	9,607	xxx	9,607
Direct-smelting ore shipped ².....1,000 short tons..	(D)	(D)	xxx	(D)	(D)	xxx	...	...	xxx
Crude ore and old tailings milled.....do....	(D)	(D)	xxx	(D)	(D)	xxx	(D)	(D)	xxx
Material washed.....1,000 cu. yds..	45,238	xxx	45,238	1,453	xxx	1,453	3,925	xxx	3,925
Placer gold shipped.....1,000 fine ounces..	137.6	xxx	137.6	5.0	xxx	5.0	³ 247.1	xxx	³ 247.1
Gold concentrates produced.....1,000 short tons..	(D)	(D)	xxx	(D)	(D)	xxx	(D)	(D)	xxx
Recoverable gold content of products ⁴.....1,000 fine ounces..	232.7	95.1	137.6	52.3	47.3	5.0	³ 248.0	0.9	³ 247.1
Value of shipments, total ⁵.....\$1,000..	8,309	3,501	4,808	1,722	1,546	176	9,025	160	8,865
Milling ore.....do....	160	160	xxx	...	...	xxx	(6)	(6)	xxx
Value of net shipments ⁵.....do....	8,149	3,341	4,808	1,722	1,546	176	(D)	(D)	8,865
Direct-smelting ore ⁸.....do....	9,341	9,341	xxx	1,546	1,546	xxx	...	...	xxx
Gold concentrates.....do....							⁶ 160	⁶ 160	xxx
Mill bullion and precipitates.....do....							⁶ 8,865	⁶ xxx	⁶ 8,865
Placer gold.....do....									
Other products and services.....do....	4,800 ⁹	xxx ⁽⁹⁾	4,800 ⁸	175	xxx	175	1	(6)	8,865
Value added in mining.....do....	5,461	2,418	3,043	1,347	1,257	90	6,811	119	6,692
Number of persons engaged, total.....	1,212	672	540	200	157	43	1,027	58	969
Production and development workers.....	911	515	396	133	112	21	687	36	651
All other employees.....	108	64	44	28	28	...	117	4	113
Proprietors and firm members.....	193	93	100	39	17	22	223	18	205
Performing manual labor.....	158	77	81	32	13	19	200	17	183
Man-hours worked by production and development workers, total.....1,000..	2,210	1,205	1,005	278	235	43	1,849	94	1,755
At mines, total.....do....	2,039	1,040	999	244	207	37	1,766	94	1,672
Underground (mining and development).....do....	764	745	19	157	157	...	12	(D)	(D)
Open-pit and surface mining and stripping ¹.....do....	132	19	113	4	2	2	1,017	...	1,017
On floating equipment.....do....	618	xxx	618	25	xxx	25	443	xxx	443
Other surface (including mine shops and yards) ¹².....do....	525	276	249	58	48	10	294	(D)	(D)
At mills and washing plants.....do....	171	165	6	34	28	6	83	...	83
Man-hours spent in development and exploration work (included above).....do....	372	332	40	30	28	2	31	9	22
Recoverable gold content of products per man-hour.....fine ounces..	0.11	0.08	0.14	0.19	0.20	(13)	0.13	(13)	0.14
Net value of shipments per man-hour.....\$1..	3.69	2.77	4.78	6.19	6.58	(13)	(14)	(14)	5.05
Principal expenses designated below, total..... \$1,000..	7,179	3,416	3,763	1,242	1,066	176	7,335	248	7,087
Wages of production and development workers.....do....	3,536	1,933	1,603	573	502	71	3,839	194	3,645
Salaries of all other employees.....do....	580	315	265	175	175	...	805	12	793
Crude ore and old tailings received for milling.....do....	1,925	733	xxx	...	...	xxx	...	...	xxx
Supplies.....do....							68	1,431	29
Fuel.....do....							5	1,185	...
Purchased electric energy.....do....							30	...	13
Contract work.....do....	99	66	53	26	24	2	75	...	218
Purchased machinery installed.....do....	244	155	89	122	102	20	368	5	363
Capital expenditures, total.....do....	459	240	219	241	202	39	845	6	839
Development and exploration of mineral property.....do....	229	138	91	67	54	13	80	6	74
Mill and washing plant construction.....do....	27	3	24	29	24	5	90	...	90
Other construction.....do....	19	5	14	41	40	1	140	...	140
New machinery and equipment.....do....	108	74	34	32	32	...	317	...	317
Used plant and equipment.....do....	76	20	56	72	52	20	218	...	218

See footnotes at end of table.

Table 3.—DETAILED STATISTICS FOR THE LODE AND PLACER GOLD INDUSTRIES IN THE UNITED STATES, BY GEOGRAPHIC DIVISIONS AND STATES, AND IN ALASKA: 1954—Continued

(For explanation of line captions, see INTRODUCTION)

Item	Pacific—Continued						Alaska		
	California			Washington and Oregon					
	Total	Lode	Placer	Total	Lode	Placer	Total	Lode	Placer
Horsepower rating of power equipment, prime movers and electric motors driven by purchased energy, total.....	83,754	37,049	46,705	6,301	4,264	2,037	108,486	23,603	84,883
Per production worker.....	92	72	118	47	38	(¹³)	158	(¹³)	130
Prime movers.....	27,811	13,829	13,982	5,128	3,981	1,147	108,437	23,603	84,834
Electric motors driven by purchased energy.....	55,943	23,220	32,723	1,173	283	890	49	...	49
Horsepower rating of electric motors driven by energy generated at the establishment.....	350	307	43	275	275	...	48,289	12,625	35,664
Energy used.....million kwh equivalent..	133	48	85	18	10	8	551	3	548
Coal.....1,000 short tons..	...	...	...	...	...	...	(D)	...	(D)
Fuel oils.....1,000 barrels..	8	5	3	2	1	1	46	1	45
Natural gas.....million cu. ft..	...	...	...	...	...	...	...	...	...
Electric energy purchased.....million kwh..	103	30	73	12	6	6	...	...	...
Electric energy generated and used.....do....	1	1	...	...	...	...	42	6	36
Water intake, including mine water used.....million gallons..	9,610	1,172	8,438	643	32	611	34,939	103	34,836
Per production worker.....do....	10.55	2.28	21.31	4.84	0.29	(¹³)	50.86	(¹³)	53.51

D Withheld to avoid approximately disclosing figures for individual companies.

¹Less than 500 short tons.²Includes small quantities of old tailings shipped to smelters and ore sold to ore buyers.³Includes shipments of small quantities of gold recovered from placer gravels by establishments not classified in the placer gold industry.⁴For the lode gold industry, represents the recoverable gold content of ores and old tailings shipped to smelters and to ore buyers, concentrates produced, and mill bullion and precipitates shipped. For the placer gold industry, represents shipments of placer gold.⁵Total represents gross value of shipments. For explanation of terms "gross" and "net" see table 1, footnote 7.⁶Figures for "milling ore" and for "other products and services" in the lode gold industry are included with the figures for "gold concentrates."⁷Figure for "milling ore" is included with the figure for "gold concentrates."⁸Includes small amounts for the value of shipments of old tailings to smelters and of ore to ore buyers.⁹Figure for "other products and services" in the lode gold industry is included with the figure for "direct-smelting ore."¹⁰For the United States and Alaska combined, includes silver recovered with gold from placer gravels, perlite, sand and gravel, tungsten concentrates, electric energy sold, and services performed for others. For the United States, includes all of these products except perlite.¹¹For placer gold, the figures were reported as "Surface, other than shops and yards or on floating equipment."¹²For placer gold, represents "Mine shops and yards" only.¹³Not computed since the number of proprietors and firm members performing manual labor exceeds one-third the number of production and development workers.¹⁴Ratio not computed to avoid approximate disclosure of operations of individual companies.

Table 4A.—DETAILED STATISTICS FOR THE LOOSE GOLD

(For explanation of line captions,

Item	All types of establishments	Establishments classified by mining method					
		Producing establishments					
		Open-pit mines with or without mill	Combination open-pit and underground mines with or without mill	Underground mines, by principal mining method			Open stoping
				Total			
				Without mill or with non-producing mill	With producing mill		
1 Number of operating companies.....	286	29	4	68	69	40	
2 Number of establishments.....	298	29	4	70	70	40	
3 Number of mines.....	291	29	4	70	70	40	
4 Number of mills.....	135	16	2	6	70	19	
5 Crude ore mined.....1,000 short tons..	2,248	197	61	159	1,831	65	
6 Gold content, gross.....1,000 fine ounces..	803.7	38.7	11.1	82.0	671.9	31.8	
7 Fine ounces of gross gold content per ton of crude ore mined.....fine ounces..	0.36	0.20	0.18	0.51	0.37	0.49	
8 Crude ore and old tailings milled.....1,000 short tons..	xxx	xxx	xxx	xxx	xxx	xxx	
9 Gold content, gross.....1,000 fine ounces..	xxx	xxx	xxx	xxx	xxx	xxx	
10 Gold concentrates produced, recoverable gold content.....do....	36.7	xxx	xxx	xxx	xxx	xxx	
11 Mill bullion and precipitates shipped, recoverable gold content.....do....	701.3	xxx	xxx	xxx	xxx	xxx	
12 Value of shipments ⁴.....\$1,000..	28,517	1,356	155	2,037	23,085	1,104	
13 Gold concentrates.....do....	1,429	xxx	xxx	xxx	xxx	xxx	
14 Mill bullion and precipitates.....do....	24,696	xxx	xxx	xxx	xxx	xxx	
15 Value added in mining.....\$1,000..	21,884	890	38	1,898	18,469	1,016	
16 Number of persons engaged, total.....	3,300	134	14	358	2,445	241	
17 Production and development workers.....	2,634	87	7	230	2,088	153	
18 All other employees.....	386	15	5	30	291	30	
19 Proprietors and firm members.....	280	32	2	98	66	58	
20 Performing manual labor.....	223	31	...	84	53	47	
21 Man-hours worked by production and development workers, total, 1,000..	5,894	199	10	505	4,746	363	
22 At mine, total.....do....	5,120	102	10	498	4,240	327	
23 Underground and open-pit.....do....	3,386	102	10	368	2,693	233	
24 Surface (including mine shops and yards).....do....	1,734	97	...	130	1,547	94	
25 At mill.....do....	774	...	...	7	506	36
26 Man-hours spent on development and exploration work (included above).....do....	884	3	3	105	522	89	
27 Tons of crude ore mined per man-hour at mine.....short tons..	0.44	(⁵)	6.10	(⁹)	0.43	0.20	
28 Fine ounces of gross gold content of crude ore mined per man-hour at mine.....fine ounces..	0.16	(⁵)	1.11	(⁵)	0.16	0.97	
29 Fine ounces of recoverable gold content of concentrates and mill bullion and precipitates per man-hour at mill.....do....	xxx	xxx	xxx	xxx	xxx	xxx	
30 Principal expenses designated below, total.....\$1,000..	20,169	796	141	1,332	15,300	946	
31 Wages of production and development workers.....do....	10,406	410	21	823	8,562	568	
32 Salaries of all other employees.....do....	1,863	...	...	111	1,534	104
33 Crude ore and old tailings received for milling.....do....	1,274	198	...	xxx	4,300	...	
34 Supplies.....do....	5,017	...	...	253	...	161
35 Fuel.....do....	569	...	...	32	410	23
36 Purchased electric energy.....do....	720	188	120	109	474	88	
37 Contract work.....do....	320	...	...	4	20	2
38 Purchased machinery installed.....do....	910	111	4	91	533	68	
39 Capital expenditures, total.....do....	2,177	31	7	350	1,121	254	
40 Development and exploration of mineral property.....do....	1,037	7	1	216	375	150	
41 Mill construction.....do....	370	7	2	6	317	38	
42 Other construction.....do....	194	2	...	51	138	2	
43 New machinery and equipment.....do....	386	...	...	53	241	41
44 New plant and equipment.....do....	190	15	4	24	50	23	
45 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	111,868	6,774	594	10,552	74,286	10,951	
46 Per production worker.....do....	42	(⁵)	85	(⁵)	36	72	
47 Prime movers.....do....	63,906	6,688	394	6,220	40,673	6,135	
48 Electric motors driven by purchased energy.....do....	47,962	86	200	4,332	33,613	4,816	
49 Horsepower rating of electric motors driven by energy generated at the establishment.....do....	49,571	1,269	5	...	48,097	53	
50 Energy used.....million kwh equivalent..	639	26	...	18	572	13	
51 Coal.....1,000 short tons..	62	...	...	1	61	...
52 Fuel oils.....1,000 barrels..	24	13	...	1	8	...	
53 Natural gas.....million cu. ft..	68	...	...	...	67	...
54 Electric energy purchased.....million kwh..	63	...	...	5	48	5
55 Electric energy generated and used.....do....	62	5	...	...	57	...
56 Water intake, including mine water used.....million gallons..	4,277	126	2	13	3,958	111	
57 Per production worker.....do....	1.62	(⁵)	0.29	(⁵)	1.90	0.73	

D Withheld to avoid approximately disclosing figures for individual companies. ¹Includes 9 producing mines with associated nonproducing mills. The value of shipments of such establishments represents about 0.5 percent of the total value shown. ²Includes 7 mills which had no associated mine, of which 3 used amalgamation, 2 used flotation, 1 used cyanidation, and 1 did not report the principal milling method used. The value of shipments of these establishments represents about 7.0 percent of the total value shown. ³Includes 8 establishments which did not report the principal milling method.

INDUSTRY IN THE UNITED STATES, BY TYPE OF OPERATION: 1954

see INTRODUCTION)

Establishments classified by mining method—Con.					Producing establishments classified by milling method							
Producing establishments—Con.				Non-producing estab-lishments	All producing estab-lishments	Mines without mill or with non-producing mill ¹	Producing mills (with or without mines), by principal milling method ²					
Underground mines, by principal mining methods—Con.			Mills only and producing mills with non-producing mines				Total	Flotation	Amalga-mation	Cyanida-tion	Other mining methods and methods not specified ³	
Shrinkage stoping	Cut-and-fill stoping	Other mining methods and methods not specified										
11	11	76	11	112	175	83	93	12	56	9	16	1
11	11	78	11	114	184	88	96	12	59	9	³ 16	2
11	11	78	4	114	177	88	89	10	56	8	15	3
5	5	47	11	30	105	9	96	12	59	9	16	4
273	1,547	105	xxx	xxx	2,248	228	2,020	xxx	xxx	xxx	xxx	5
79.4	574.0	68.7	xxx	xxx	803.7	95.7	708.0	xxx	xxx	xxx	xxx	6
0.29	0.37	0.65	xxx	xxx	xxx	0.42	xxx	xxx	xxx	xxx	xxx	7
xxx	xxx	xxx	148	xxx	2,197	...	2,197	212	1,631	319	35	8
xxx	xxx	xxx	61.2	xxx	768.5	...	768.5	91.1	613.2	61.7	2.5	9
xxx	xxx	xxx	...	...	36.7	...	36.7	27.5	7.7	0.1	1.4	10
xxx	xxx	xxx	54.4	...	701.3	...	701.3	55.8	586.1	57.9	1.5	11
2,282	19,583	2,153	1,884	...	28,517	2,292	26,225	3,157	20,933	2,044	91	12
xxx	xxx	xxx	(D)	...	1,429	...	1,429	1,107	267	5	50	13
xxx	xxx	xxx	(D)	...	24,696	...	24,696	2,001	20,622	2,036	37	14
1,775	15,860	1,716	404	185	21,699	1,996	19,703	1,552	16,703	1,327	121	15
356	1,761	445	82	267	3,033	390	2,643	195	2,153	251	44	16
309	1,526	330	58	164	2,470	235	2,235	158	1,831	222	24	17
38	224	29	12	33	353	36	317	30	256	27	4	18
9	11	86	12	70	210	119	91	7	66	2	16	19
7	7	76	12	43	180	104	76	4	57	...	15	20
696	3,405	787	146	288	5,606	513	5,093	376	4,158	510	49	21
601	3,074	736	1	269	4,851	506	4,345	218	3,788	298	41	22
441	1,840	547	1	217	xxx	xxx	xxx	xxx	xxx	xxx	xxx	23
160	1,234	189	...	52	xxx	xxx	xxx	xxx	xxx	xxx	xxx	24
95	331	51	145	19	755	7	748	158	370	212	8	25
248	194	96	31	220	664	107	557	35	417	87	18	26
0.45	0.50	0.14	xxx	xxx	xxx	(⁵)	xxx	xxx	xxx	xxx	xxx	27
0.13	0.19	0.09	xxx	xxx	xxx	(⁵)	xxx	xxx	xxx	xxx	xxx	28
xxx	xxx	xxx	0.38	xxx	0.98	xxx	0.99	0.53	1.60	0.27	(⁵)	29
1,780	11,909	1,997	1,721	879	19,290	1,511	17,779	2,488	13,652	1,524	115	30
1,035	6,516	1,266	189	477	9,929	831	9,098	647	7,628	746	77	31
168	1,211	162	45	97	1,766	119	1,647	161	1,372	107	7	32
...	...	401	1,214	...	1,274	...	1,274	1,107	56	111	...	33
367	⁶ 3,637	⁶ 158	170	4,847	256	4,591	4,591	⁶ 385	3,860	⁶ 397	17	34
35	355	29	11	26	543	32	511	33	366	109	3	35
175	190	130	104	29	691	113	578	155	364	⁵ 4	5	36
...	(⁶)	9	(⁶)	80	240	160	80	(⁶)	6	(⁶)	6	37
35	367	154	67	104	806	91	715	91	438	123	63	38
105	826	286	74	594	1,583	356	1,227	166	860	77	124	39
69	246	126	...	438	599	222	377	57	261	...	59	40
...	243	42	6	32	338	6	332	21	247	41	23	41
5	123	59	1	2	192	51	141	5	125	2	9	42
23	208	22	50	42	344	53	291	66	212	10	3	43
8	6	37	17	80	110	24	86	17	15	24	30	44
12,288	37,556	24,043	5,199	14,463	97,405	11,329	86,076	10,098	61,495	12,609	1,874	45
40	25	73	90	882	39	(⁵)	39	64	34	57	(⁵)	46
3,372	27,053	10,333	882	9,049	54,857	6,747	48,110	5,328	33,440	7,935	1,407	47
8,916	10,503	13,710	4,317	5,414	42,548	4,582	37,966	4,770	28,055	4,674	467	48
...	47,152	892	...	200	49,371	...	49,371	782	47,240	1,269	80	49
31	526	20	14	9	630	20	610	25	545	39	1	50
1	61	...	...	...	62	1	61	...	61	...	...	51
2	5	2	1	1	23	2	21	3	5	13	...	52
21	46	...	1	...	68	...	68	...	46	22	...	53
15	21	12	8	2	61	5	56	14	38	4	...	54
...	57	...	...	...	62	...	62	...	57	5	...	55
116	2,682	1,062	173	5	4,272	14	4,258	187	3,846	217	8	56
0.38	1.76	3.22	2.98	0.03	1.73	(⁵)	1.91	1.18	2.10	0.98	(⁵)	57

⁴Represents gross value of shipments. For derivation of gross value, see table 1, footnote 7. ⁵Not computed since the number of proprietors and firm members performing manual labor exceeds one-third of the number of production and development workers. ⁶Figure for "contract work" is included with figure for "supplies."

Table 4B.—DETAILED STATISTICS FOR THE PLACER GOLD

Part I.—Establishments

(For explanation of line captions,

Item	United States and Alaska						
	All types of establishments	Producing mines, by principal mining method					Non-producing mines
		Bucket line dredging	Dragline dredging	Hydraulic	Ground sluicing	Other ¹	
1 Number of operating companies.....	271	21	27	63	22	100	43
2 Number of establishments.....	281	23	29	63	22	100	44
3 Number of mines.....	281	23	29	63	22	100	44
4 Number of washing plants.....	249	23	29	63	21	76	37
5 Gold produced.....1,000 fine ounces..	2414.6	355.5	21.5	15.7	3.2	218.7	...
6 Gold shipped.....do....	2416.2	355.7	21.7	16.0	3.2	219.6	...
7 Value of shipments.....\$1,000..	14,781	12,668	752	568	112	681	...
8 Gold and silver.....do....	14,553	12,448	752	563	112	678	...
9 Value added in mining.....do....	10,306	8,534	543	409	91	610	119
10 Number of persons engaged, total.....	1,698	1,174	90	141	40	161	92
11 Production and development workers.....	1,152	1,013	44	33	5	25	32
12 All other employees.....	168	139	5	5	...	4	15
13 Proprietors and firm members.....	378	22	41	103	35	132	45
14 Performing manual labor.....	328	15	32	89	34	122	36
15 Man-hours worked by production and development workers, total.....1,000..	3,010	2,665	113	95	14	68	55
16 At mine, total.....do....	2,884	2,632	86	63	(D)	(D)	50
17 Underground and surface, other than mine shops and yards.....do....	1,226	1,002	80	56	14	68	39
18 On floating equipment.....do....	1,165	1,157	6	...			
19 Mine shops and yards.....do....	493	473	...	7			
20 At washing plant.....do....	126	33	27	32			5
21 Man-hours spent on development and exploration work (included above).....do....	93	16	(D)	(D)	...	13	48
22 Fine ounces of gold produced per man-hour.....	0.14	0.13	(4)	(4)	(4)	(4)	...
23 Principal expenses designated below, total.....\$1,000..	11,902	10,496	442	371	68	294	231
24 Wages of production and development workers.....do....	5,642	5,004	207	181	29	117	104
25 Salaries of all other employees.....do....	1,107	994	20	24	...	14	55
26 Supplies.....do....	2,956	2,646	2101	71	27	599	16
27 Fuel.....do....	1,425	1,143	114	89	12	64	12
28 Purchased electric energy.....do....	661	652	...	...	...
29 Contract work.....do....	111	57	(5)	6	...		
30 Purchased machinery installed.....do....	665	118	78	147	40	120	162
31 Capital expenditures, total.....do....	1,343	482	84	154	58	212	353
32 Development and exploration of mineral property.....do....	254	21	15	16	12	54	136
33 Washing plant construction.....do....	124	57	7	...	6	4	50
34 Other construction.....do....	158	126	12	3	...	3	14
35 New machinery and equipment.....do....	438	153	37	122	28	39	59
36 Used plant and equipment.....do....	369	125	13	13	12	112	94
37 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	148,851	97,090	10,776	14,907	3,774	11,251	11,053
38 Per production worker.....	129	96	(4)	(4)	(4)	(4)	(4)
39 Prime movers.....	113,501	65,596	10,534	14,907	3,774	10,403	8,287
40 Electric motors driven by purchased energy.....	35,350	31,494	242	...	...	848	2,766
41 Horsepower rating of electric motors driven by energy generated at the establishment.....	40,120	38,931	301	325	...	563	...
42 Energy used.....million kwh equivalent..	718	670	23	12	2	9	2
43 Coal.....1,000 short tons..	57	57	...	...	...	...	...
44 Fuel oils.....1,000 barrels..	91	77	5	4	1	3	1
45 Natural gas.....million cu. ft..	...	...	...	...	...	...	...
46 Electric energy purchased.....million kwh..	79	79	...	...	...	...	...
47 Electric energy generated and used.....do....	46	46	...	...	...	...	...
48 Water intake, including mine water used.....million gallons..	45,588	41,348	1,166	1,683	227	1,128	36
49 Per production worker.....do....	39.57	40.82	(4)	(4)	(4)	(4)	(4)

See footnotes at end of table.

INDUSTRY IN THE UNITED STATES AND ALASKA, BY TYPE OF OPERATION: 1954

classified by principal mining method

see INTRODUCTION)

United States					Alaska					
All types of establishments	Producing mines, by principal mining method			Non-producing mines	All types of establishments	Producing mines, by principal mining method				Non-producing mines
	Bucket line dredging	Dragline dredging	Other ¹			Bucket line dredging	Dragline dredging	Hydrau-licking	Other ¹	
131	6	20	74	32	140	15	7	53	56	11
136	7	21	75	33	145	16	8	53	57	11
136	7	21	75	33	145	16	8	53	57	11
116	7	21	62	26	133	16	8	53	45	11
169.3	160.0	4.5	4.8	...	² 245.3	195.5	17.0	15.4	² 17.4	...
169.1	159.3	5.0	4.8	...	² 247.1	196.4	16.7	15.7	² 18.3	...
5,916	5,572	170	174	...	8,865	7,096	582	555	632	...
5,908	5,566	170	172	...	8,645	6,882	582	550	631	...
3,614	3,253	107	157	97	6,692	5,281	436	398	555	22
729	477	55	116	81	969	697	35	121	105	11
501	436	20	15	30	651	577	24	32	16	2
55	37	3	3	12	113	102	2	5	1	3
173	4	32	98	39	205	18	9	84	88	6
145	1	25	88	31	183	14	7	75	82	5
1,255	1,136	38	32	49	1,755	1,529	75	93	52	6
1,212	1,115	29	24	44	1,672	1,517	(D)	61	(D)	6
206	128	}	24	33	1,020	874	³ 75	54	³ 50	6
722	714		...	...	443	443	...	...	...	...
284	273		...	11	209	200	...	7	2	...
43	21	9	8	5	83	12	(³)	32	(³)	...
71	6	10	13	42	22	10	(D)	(D)	...	.6
0.13	0.14	(⁴)	(⁴)	...	0.14	0.13	0.23	(⁴)	(⁴)	...
4,815	4,391	136	124	164	7,087	6,105	306	363	246	67
1,997	1,806	65	44	82	3,645	3,198	142	179	104	22
314	249	8	7	50	793	745	12	24	7	5
1,554	1,453	⁵ 31	⁵ 59	16	1,402	⁵ 1,220	70	67	⁵ 73	...
248	201	32	14	10	1,177	942	82	89	62	2
661	652	...	...	...	...	...	...	...	...	...
41	30	(⁵)	(⁵)	6	70	(⁵)	...	4	(⁵)	38
302	25	56	97	124	363	93	22	140	70	38
504	42	56	153	253	839	440	28	143	128	100
180	11	8	50	111	74	10	7	12	20	25
34	5	7	8	14	90	52	...	...	2	36
18	...	3	1	14	140	126	9	2	3	...
121	17	27	32	45	317	136	10	122	35	14
151	9	11	62	69	218	116	2	7	68	25
63,968	43,967	5,968	5,871	8,162	84,883	53,123	4,808	14,548	9,513	2,891
128	101	(⁴)	(⁴)	(⁴)	130	92	200	(⁴)	(⁴)	(⁴)
28,667	12,479	5,751	5,027	5,410	84,834	53,117	4,783	14,548	9,509	2,877
35,301	31,488	217	844	2,752	49	6	25	...	4	14
4,456	3,597	296	563	...	35,664	35,334	5	325	...	...
170	156	9	3	2	548	514	15	11	8	...
...	...	...	...	...	57	57	...	...	...	...
46	41	3	1	1	45	36	2	4	3	...
...
79	79	...	...	...	...	...	...	...	...	...
10	10	...	...	...	36	36	...	...	...	...
10,752	9,872	483	394	3	34,836	31,476	683	1,522	1,122	33
21.46	22.64	(⁴)	(⁴)	(⁴)	53.51	54.55	28.46	(⁴)	(⁴)	(⁴)

Table 4B.—DETAILED STATISTICS FOR THE PLACER GOLD

Part II.—Establishments

(For explanation of line captions,

	Item	United States and Alaska				
		All types of deposits	Stream gravel	Ancient river bed	Bench gravel	Other and deposit not specified ⁶
1	Number of operating companies.....	271	104	35	36	102
2	Number of establishments.....	281	108	35	36	102
3	Number of mines.....	281	108	35	36	102
4	Gold produced.....1,000 fine ounces..	2414.6	241.9	3.5	64.8	2104.4
5	Gold shipped.....do....	2416.2	243.2	3.5	64.8	2104.7
6	Value of shipments.....\$1,000..	14,781	8,741	125	2,271	3,644
7	Gold and silver.....do....	14,553	8,517	125	2,267	3,644
8	Value added in mining.....\$1,000..	10,306	6,358	170	1,464	2,314
9	Number of persons engaged, total.....	1,698	819	86	254	539
10	Production and development workers.....	1,152	580	27	191	354
11	All other employees.....	168	88	8	19	53
12	Proprietors and firm members.....	378	151	51	44	132
13	Performing manual labor.....	328	125	40	42	121
14	Man-hours worked by production and development workers, total.....1,000..	3,010	1,549	48	506	907
15	At mine, total.....do....	2,884	1,458	(D)	(D)	890
16	Underground and surface, other than mine shops and yards.....do....	1,226	797	48	506	286
17	On floating equipment.....do....	1,165	497			424
18	Mine shops and yards.....do....	493	164			180
19	At washing plant.....do....	126	91			17
20	Man-hours spent on development and exploration work (included above).....do....	93	(D)	31	(D)	32
21	Fine ounces of gold produced per man-hour.....	0.14	0.17	(⁴)	0.13	(⁴)
22	Principal expenses designated below, total.....\$1,000..	11,902	6,452	182	1,775	3,493
23	Wages of production and development workers.....do....	5,642	3,141	97	808	1,596
24	Salaries of all other employees.....do....	1,107	597	33	108	369
25	Supplies.....do....	2,956	1,469	21	554	960
26	Fuel.....do....	1,425	1,180	17	42	186
27	Purchased electric energy.....do....	661	65	9	263	324
28	Contract work.....do....	111	(⁵)	5	(⁵)	58
29	Purchased machinery installed.....do....	665	324	34	157	150
30	Capital expenditures, total.....do....	1,343	655	131	209	348
31	Development and exploration of mineral property.....do....	254	69	79	16	90
32	Washing plant construction.....do....	124	10	14	36	64
33	Other construction.....do....	158	123	14	1	20
34	New machinery and equipment.....do....	438	226	21	117	74
35	Used plant and equipment.....do....	369	227	3	39	100
36	Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	148,851	69,285	5,181	26,052	48,333
37	Per production worker.....	129	119	(⁴)	136	(⁴)
38	Prime movers.....	113,501	66,859	3,881	11,084	31,677
39	Electric motors driven by purchased energy.....	35,350	2,426	1,300	14,968	16,656
40	Horsepower rating of electric motors driven by energy generated at the establishment.....	40,120	30,014	325	268	9,513
41	Energy used.....million kwh equivalent..	718	587	4	42	85
42	Coal.....1,000 short tons..	57	57	...	...	...
43	Fuel oils.....1,000 barrels..	91	66	1	3	21
44	Natural gas.....million cu. ft..	...	...	...	...	...
45	Electric energy purchased.....million kwh..	79	9	...	33	37
46	Electric energy generated and used.....do....	46	(D)	...	...	(D)
47	Water intake, including mine water used.....million gallons..	45,588	22,896	588	3,654	18,450
48	Per production worker.....do....	39.57	42.20	(⁴)	19.13	(⁴)

D Withheld to avoid approximately disclosing figures for individual companies. ¹Represents, for the United States, establishments reporting as their principal mining method: suction dredging, panning, dry placering, drift mining, hydraulicking, and ground sluicing, and for Alaska, ground sluicing and drift mining, in addition to establishments not reporting their principal mining method. ²Includes small quantities of placer gold recovered as byproducts of mineral operations by establishments not classified in the placer gold industry. ³Figure for "At washing plant" is combined with figure for "Underground and surface, other than shops and yards".

INDUSTRY IN THE UNITED STATES AND ALASKA, BY TYPE OF OPERATION: 1954

classified by type of deposit

see INTRODUCTION)

United States				Alaska				
All types of deposits	Stream gravel	Bench gravel	Other and deposit not specified ⁶	All types of deposits	Stream gravel	Bench gravel	Other and deposit not specified ⁶	
131	40	18	77	140	64	18	60	1
136	41	18	77	145	67	18	60	2
136	41	18	77	145	67	18	60	3
169.3	36.7	61.7	70.9	² 245.3	205.2	3.1	² 37.0	4
169.1	37.1	61.6	70.4	² 247.1	206.3	3.2	² 37.6	5
5,916	1,304	2,159	2,453	8,865	7,437	112	1,316	6
5,908	1,300	2,155	2,453	8,645	7,217	112	1,316	7
3,614	641	1,379	1,594	6,692	5,717	85	890	8
729	171	219	339	969	648	35	286	9
501	108	179	214	651	472	12	167	10
55	9	18	28	113	79	1	33	11
173	54	22	97	205	97	22	86	12
145	41	22	82	183	84	20	79	13
1,255	258	468	529	1,755	1,291	38	426	14
1,212	233	460	519	1,672	1,225	(D)	(D)	15
206	49	93	64	1,020	748	38	426	16
722	150	221	351	443	347			17
284	34	146	104	209	130			18
43	25	8	10	83	66			19
71	(D)	(D)	52	22	11	...	11	20
0.13	(⁴)	0.13	(⁴)	0.14	0.16	(⁴)	(⁴)	21
4,815	1,132	1,648	2,035	7,087	5,320	127	1,640	22
1,997	417	754	826	3,645	2,724	54	867	23
314	43	106	165	793	554	2	237	24
1,554	405	497	652	1,402	⁵ 1,064	⁵ 51	329	25
248	202	22	24	1,177	978	20	179	26
661	65	263	333	...	...	...	...	27
41	...	6	35	70	(⁵)	(⁵)	28	28
302	142	20	140	363	182	137	44	29
504	151	28	325	839	504	181	154	30
180	23	7	150	74	46	9	19	31
34	8	...	26	90	2	36	52	32
18	2	...	16	140	121	1	18	33
121	36	17	68	317	190	100	27	34
151	82	4	65	218	145	35	38	35
63,968	14,761	21,921	27,286	84,883	54,524	4,131	26,228	36
128	(⁴)	122	(⁴)	130	116	(⁴)	(⁴)	37
28,667	12,365	6,953	9,349	84,834	54,494	4,131	26,209	38
35,301	2,396	14,968	17,937	49	30	...	19	39
4,456	4,120	268	68	35,664	25,894	...	9,770	40
170	86	40	44	548	501	2	45	41
...	...	...	...	57	57	...	...	42
46	42	2	2	45	24	1	20	43
...	...	...	...	...	...	...	...	44
79	9	33	37	...	...	...	...	45
10	10	...	...	36	(D)	...	(D)	46
10,752	4,022	3,163	3,567	34,836	18,874	491	15,471	47
21.46	(⁴)	17.67	(⁴)	53.51	43.30	(⁴)	(⁴)	48

⁴Not computed since the number of proprietors and firm members performing manual labor exceeds one-third of the number of production and development workers.

⁵Figure for "supplies" is combined with the figure for "contract work."

⁶Represents establishments reporting as the type of deposit worked: beach sand, ancient river bed (except for United States and Alaska total), and old tailings; establishments not reporting the type of deposit; and establishments reporting more than one type of deposit. More than 70 percent of the total value of shipments for this item for the United States and Alaska combined, and more than 90 percent of the total value of shipments for this item for the United States, is accounted for by establishments reporting both stream gravel and other types of deposits.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 5A.—PRODUCTS OF THE LODE GOLD INDUSTRY, BY GEOGRAPHIC DIVISIONS, 1954 AND 1939, AND GOLD CONCENTRATES AND MILL BULLION AND PRECIPITATES PRODUCED IN ALL MINERAL INDUSTRIES, 1954

(For explanation of column captions, see INTRODUCTION)

Product and Geographic Division	1954									1939 (Production)	
	Production (1,000 short tons)	Shipments and interplant transfers		Quantities of metals contained						Quantity (1,000 short tons)	Value f.o.b. mine or mill (\$1,000)
		Quantity (1,000 short tons)	Value f.o.b. mine or mill (\$1,000)	Basis	Gold (1,000 fine ounces)	Silver (1,000 fine ounces)	Copper (1,000 pounds)	Lead (1,000 pounds)	Zinc (1,000 pounds)		
<u>UNITED STATES</u>											
LODE GOLD INDUSTRY											
All products and services, total.	xxx	xxx	28,517	Recoverable	766.7	524	32	114	76	xxx	92,942
Primary Products											
Crude ore mined, total.....	2,248	xxx	xxx	Gross.....	803.7	606	73	239	401	11,343	xxx
From underground operations.....	1,999	xxx	xxx	....do.....	759.8	558	68	216	395	} 11,343	xxx
From open-pit operations.....	249	xxx	xxx	....do.....	43.9	48	5	23	6		
Milling ores ¹	xxx	173	1,625	....do.....	71.0	34	47	98	288	1,164	6,878
Direct-smelting ores ²	xxx	67	757	Recoverable	28.7	(D)	22	28	28	503	6,352
Gross metal content.....	xxx	xxx	xxx	Gross.....	28.7	(D)	24	31	33	xxx	xxx
Gold concentrates ³	4	4	1,429	Recoverable	36.7	175	10	86	48	³ 154	⁴ 14,466
Mill bullion and precipitates.....	xxx	xxx	24,696	....do.....	701.3	(D)	xxx	xxx	xxx	xxx	⁴ 64,989
Secondary products and services ⁵	xxx	xxx	10	.....	xxx	xxx	xxx	xxx	xxx	xxx	257
ALL MINERAL INDUSTRIES											
Gold concentrates.....	15	15	1,556	....do.....	41.6	230	10	369	577	(NA)	(NA)
Mill bullion and precipitates.....	xxx	xxx	25,134	....do.....	713.2	303	xxx	xxx	xxx	(NA)	(NA)
Recovered by amalgamation.....	xxx	xxx	14,965	....do.....	425.5	94	xxx	xxx	xxx	(NA)	(NA)
Recovered by cyanidation.....	xxx	xxx	10,169	....do.....	287.7	209	xxx	xxx	xxx	(NA)	(NA)
<u>WEST NORTH CENTRAL</u>											
LODE GOLD INDUSTRY											
All products and services, total.	xxx	xxx	19,088	....do.....	541.4	151	xxx	xxx	xxx	xxx	21,675
Primary Products											
Crude ore mined.....	⁶ 1,601	xxx	xxx	Gross.....	561.6	178	...	...	...	1,645	xxx
Direct-smelting ores.....	xxx	...	...	Recoverable	...	...	...	...	...	(7)	40
Gold concentrates ⁸.....	...	...	...	....do.....	...	...	...	...	...	(7)	8
Mill bullion and precipitates ⁸	xxx	xxx	19,088	....do.....	541.4	151	xxx	xxx	xxx	xxx	21,627
Recovered by amalgamation.....	xxx	xxx	12,800	....do.....	363.8	80	xxx	xxx	xxx	} xxx	21,627
Recovered by cyanidation.....	xxx	xxx	6,288	....do.....	177.6	71	xxx	xxx	xxx		
<u>SOUTH ATLANTIC</u> ⁹											
LODE GOLD INDUSTRY											
All products and services, total.	xxx	xxx	13	....do.....	0.3	...	...	9	...	xxx	505
Primary Products											
Crude ore mined.....	(7)	xxx	xxx	Gross.....	0.3	...	...	9	...	124	xxx
Milling ores ¹	xxx	...	...	....do.....	...	...	...	...	...	1	4
Gold concentrates and mill bullion and precipitates ⁸	xxx	xxx	13	Recoverable	0.3	...	...	9	...	xxx	501
<u>MOUNTAIN</u>											
LODE GOLD INDUSTRY											
All products and services, total.	xxx	xxx	4,369	....do.....	82.6	93	20	31	28	xxx	40,513
Primary Products											
Crude ore mined, total.....	343	xxx	xxx	Gross.....	95.1	97	59	124	323	4,615	xxx
From underground operations.....	121	xxx	xxx	....do.....	66.8	86	55	109	317	} 4,615	xxx
From open-pit operations.....	222	xxx	xxx	....do.....	28.3	11	4	15	6		
Milling ores ¹	xxx	164	1,465	....do.....	63.7	14	46	83	275	941	5,522
Direct-smelting ores.....	xxx	¹⁰ 14	¹⁰ 257	Recoverable	7.0	(D)	20	26	28	401	5,524
Gross metal content.....	xxx	xxx	xxx	Gross.....	7.0	(D)	22	29	33	xxx	xxx
Gold concentrates and mill bullion and precipitates.....	xxx	xxx	2,647	Recoverable	75.6	(D)	...	5	...	xxx	29,233
Secondary products and services.....	xxx	xxx	(¹⁰)	.....	xxx	xxx	xxx	xxx	xxx	xxx	234

See footnotes at end of table.

Table 5A.—PRODUCTS OF THE LODE GOLD INDUSTRY, BY GEOGRAPHIC DIVISIONS, 1954 AND 1939, AND GOLD CONCENTRATES AND MILL BULLION AND PRECIPITATES PRODUCED IN ALL MINERAL INDUSTRIES, 1954—Continued

(For explanation of column captions, see INTRODUCTION)

Product and Geographic Division	1954									1939 (Production)	
	Production (1,000 short tons)	Shipments and interplant transfers		Quantities of metals contained						Quantity (1,000 short tons)	Value f.o.b. mine or mill (\$1,000)
		Quantity (1,000 short tons)	Value f.o.b. mine or mill (\$1,000)	Basis	Gold (1,000 fine ounces)	Silver (1,000 fine ounces)	Copper (1,000 pounds)	Lead (1,000 pounds)	Zinc (1,000 pounds)		
MOUNTAIN- Continued											
ALL MINERAL INDUSTRIES											
Gold concentrates.....	11	11	157	Recoverable	5.5	75	...	274	518	(NA)	(NA)
Mill bullion and precipitates.....	xxx	xxx	3,010	....do....	85.8	52	xxx	xxx	xxx	(NA)	(NA)
Recovered by amalgamation.....	xxx	xxx	434	....do....	12.4	6	xxx	xxx	xxx	(NA)	(NA)
Recovered by cyanidation.....	xxx	xxx	2,576	....do....	73.4	46	xxx	xxx	xxx	(NA)	(NA)
PACIFIC											
LODE GOLD INDUSTRY											
All products and services, total.	xxx	xxx	5,047	....do....	142.4	280	12	74	48	xxx	30,249
Primary Products											
Crude ore mined, total.....	304	xxx	xxx	Gross.....	146.7	331	14	106	78	4,959	xxx
From underground operations.....	277	xxx	xxx	....do....	131.4	294	13	106	78	4,959	xxx
From open-pit operations.....	27	xxx	xxx	....do....	15.3	37	1	...	...
Milling ores ¹	xxx	9	160	....do....	7.3	20	1	15	13	222	1,352
Direct-smelting ores.....	xxx	¹⁰ 53	¹⁰ 510	Recoverable	21.7	26	2	2	...	102	788
Gross metal content.....	xxx	xxx	xxx	Gross.....	21.7	26	2	2	...	xxx	xxx
Gold concentrates and mill bullion and precipitates.....	xxx	xxx	4,377	Recoverable	120.7	254	10	72	48	xxx	28,086
Secondary products and services.....	xxx	xxx	(¹⁰)	.....	xxx	xxx	xxx	xxx	xxx	xxx	23
ALL MINERAL INDUSTRIES											
Gold concentrates and mill bullion and precipitates.....	xxx	xxx	4,422	Recoverable	121.8	255	10	86	59	(NA)	(NA)

D Withheld to avoid approximately disclosing figures for individual companies.

NA Not available.

¹Statistics for both 1954 and 1939 represent shipments. Figures shown may include old tailings; separate figures on any shipments of old tailings to other mills were not obtained in either year.²For 1954, includes old tailings shipped to smelters and ore sold to ore buyers, amounting to less than 3 percent of the shipment tonnage and value figures shown.³For 1954, represents only gold concentrates. For 1939, represents gold, silver, copper, lead, and zinc concentrates, but separate quantities of each of the latter are not available.⁴For approximate comparability with 1954 the totals shown have been revised to include, in addition to the value of concentrates and of mill bullion and precipitates produced from ores mined at the same establishment where milled, the value of milling ores sold or sent for custom treatment, value added at mills in treating purchased ore, and receipts for custom treatment. These additional values were apportioned between concentrates and mill bullion and precipitates on the basis of the relative gold and silver content of the concentrates and mill bullion and precipitates produced from such milling ores.⁵For 1954, includes the value of tungsten concentrates shipped and of receipts for services performed for others, but excludes receipts for custom milling. For 1939, includes the value of miscellaneous secondary products, electric energy sold, and receipts for miscellaneous services performed for others. Electric energy sold in 1939 amounted to 86,000 kwh valued at \$7,000.⁶Entirely from underground operations.⁷Less than 500 short tons.⁸For 1954, no concentrates or mill bullion and precipitates were produced in this geographic division by establishments classified outside the lode gold industry. For 1939, figures for such production outside the lode gold industry are not available.⁹For 1954, represents figures for North Carolina and Georgia. For 1939, represents figures for Virginia, South Carolina, and Georgia.¹⁰Quantity and value shown for "direct-smelting ores" contain small amounts representing shipments of old tailings to smelters and of ore to ore buyers. This value includes the figure for "secondary products and services."

MINERAL INDUSTRIES--INDUSTRY STATISTICS

Table 5B.—PRODUCTS OF THE PLACER GOLD INDUSTRY IN THE UNITED STATES, BY GEOGRAPHIC DIVISIONS AND STATES, 1954 AND 1939, AND IN ALASKA, 1954, AND GOLD AND SILVER PRODUCED FROM PLACER GRAVELS IN ALL MINERAL INDUSTRIES, 1954

(For explanation of column captions, see INTRODUCTION)

Product, Geographic Division, and State	Unit of measure for quantity	1954			1939		
		Production (Quantity)	Shipments and interplant transfers		Production		
			Quantity	Value f.o.b. mine or washing plant (\$1,000)	Quantity	Value f.o.b. mine or washing plant (\$1,000)	
<u>UNITED STATES AND ALASKA</u>							
<u>Placer Gold Industry</u>							
All products and services, total.....	.....	xxx	xxx	14,781	xxx	(NA)
Primary Products							
Material thawed.....	1,000 cu. yds.	6,400	xxx	xxx	(NA)	xxx	
Material stripped.....	....do.....	10,327	xxx	xxx	(NA)	xxx
Material washed.....	....do.....	54,813	xxx	xxx	(NA)	xxx
Gold.....	1,000 fine oz.	1414.6	1416.2	14,553	(NA)	(NA)	
Secondary Products and Services							
Silver.....	1,000 fine oz.	46	45		2228	(NA)	(NA)
Electric energy sold and other products and services.....	.....	xxx	xxx	(NA)		(NA)
<u>From Placer Gravels In All Mineral Industries</u>							
Gold.....	1,000 fine oz.	(³)	(³)	14,595	(NA)	(NA)	
Silver.....	....do.....	446	445		(NA)	(NA)
<u>UNITED STATES</u>							
<u>Placer Gold Industry</u>							
All products and services, total.....	.....	xxx	xxx	5,916	xxx	28,027
Primary Products							
Material stripped.....	1,000 cu. yds.	720	xxx	xxx	(NA)	xxx	
Material washed.....	....do.....	50,888	xxx	xxx	205,793	xxx
Gold.....	1,000 fine oz.	169.3	169.1	5,898	824.6	27,992	
Secondary Products and Services							
Silver.....	1,000 fine oz.	13	12	10	96		
Electric energy sold and other products and services ⁵.....	.....	xxx	xxx	8	xxx	35
<u>From Placer Gravels In All Mineral Industries</u>							
Gold.....	1,000 fine oz.	170.7	171.2	5,965	(NA)	(NA)	
Silver.....	....do.....	13	12	10	(NA)	(NA)
<u>SOUTH ATLANTIC (VIRGINIA, SOUTH CAROLINA, AND GEORGIA)</u>							
<u>Placer Gold Industry</u>							
All products and services, total.....	.....	xxx	xxx	...	xxx	11
Primary Products							
Material washed.....	1,000 cu. yds.	...	xxx	xxx	57	xxx	
Gold.....	1,000 fine oz.	...	...	...	0.3	⁶ 11
<u>MOUNTAIN</u>							
<u>Placer Gold Industry</u>							
All products and services, total.....	.....	xxx	xxx	932	xxx	5,234
Primary Products							
Material stripped.....	1,000 cu. yds.	597	xxx	xxx	(NA)	xxx	
Material washed.....	....do.....	4,197	xxx	xxx	29,077	xxx
Gold.....	1,000 fine oz.	26.1	26.5	923	154.0	95,234	
Secondary Products and Services							
Silver, electric energy sold, and other products ⁸.....	.....	74	74	9	737	
<u>From Placer Gravels In All Mineral Industries</u>							
Gold.....	1,000 fine oz.	26.5	26.9	937	(NA)	(NA)	

See footnotes at end of table.

Table 5B.—PRODUCTS OF THE PLACER GOLD INDUSTRY IN THE UNITED STATES, BY GEOGRAPHIC DIVISIONS AND STATES, 1954 AND 1939, AND IN ALASKA, 1954, AND GOLD AND SILVER PRODUCED FROM PLACER GRAVELS IN ALL MINERAL INDUSTRIES, 1954—Continued

Product, Geographic Division, and State	Unit of measure for quantity	1954			1939		
		Production (Quantity)	Shipments and interplant transfers		Production		
			Quantity	Value f.o.b. mine or washing plant (\$1,000)	Quantity	Value f.o.b. mine or washing plant (\$1,000)	
IDAHO							
Placer Gold Industry							
All products and services, total.....		xxx	xxx	235	xxx	1,597	
Primary Products							
Material stripped.....	1,000 cu. yds.	155	xxx	xxx	(NA)	xxx	
Material washed.....	....do.....	1,079	xxx	xxx	9,005	xxx
Gold.....	1,000 fine oz.	(D)	(D)	235	46.7	91,597	
Secondary Products and Services							
Silver and electric energy sold ⁸		71	71	235	713	91,597	
From Placer Gravels In All Mineral Industries							
Gold.....	1,000 fine oz.	6.8	6.8	234	(NA)	(NA)	
NEVADA							
Placer Gold Industry							
All products and services, total.....		xxx	xxx	603	xxx	996	
Primary Products							
Material stripped.....	1,000 cu. yds.	10	xxx	xxx	(NA)	xxx	
Material washed.....	....do.....	3,014	xxx	xxx	4,903	xxx
Gold ¹⁰	1,000 fine oz.	17.3	17.1	600	28.8	9996	
Secondary Products and Services							
Silver and electric energy sold ⁸		73	73	3	79	9996	
OTHER STATES (MONTANA, WYOMING, COLORADO, AND ARIZONA) ¹¹							
Placer Gold Industry							
All products and services, total.....		xxx	xxx	94	xxx	2,641	
Primary Products							
Material stripped.....	1,000 cu. yds.	432	xxx	xxx	(NA)	xxx	
Material washed.....	....do.....	104	xxx	xxx	15,169	xxx
Gold.....	1,000 fine oz.	(D)	(D)	94	78.5	92,641	
Secondary Products and Services							
Silver and other products and services ⁸		xxx	xxx	94	715	92,641	
From Placer Gravels In All Mineral Industries							
Gold.....	1,000 fine oz.	2.4	3.0	103	(NA)	(NA)	
PACIFIC							
Placer Gold Industry							
All products and services, total.....		xxx	xxx	4,984	xxx	22,782	
Primary Products							
Material stripped.....	1,000 cu. yds.	123	xxx	xxx	(NA)	xxx	
Material washed.....	....do.....	46,691	xxx	xxx	176,659	xxx
Gold.....	1,000 fine oz.	143.2	142.6	4,975	670.3	622,747	
Secondary Products and Services							
Silver and other products and services ⁸		79	78	9	759	635	
From Placer Gravels In All Mineral Industries							
Gold.....	1,000 fine oz.	144.2	144.3	5,028	(NA)	(NA)	

See footnotes at end of table.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 5B.—PRODUCTS OF THE PLACER GOLD INDUSTRY IN THE UNITED STATES, BY GEOGRAPHIC DIVISIONS AND STATES, 1954 AND 1939, AND IN ALASKA, 1954, AND GOLD AND SILVER PRODUCED FROM PLACER GRAVELS IN ALL MINERAL INDUSTRIES, 1954—Continued

Product, Geographic Division, and State	Unit of measure for quantity	1954			1939	
		Production (Quantity)	Shipments and interplant transfers		Production	
			Quantity	Value f.o.b. mine or washing plant (\$1,000)	Quantity	Value f.o.b. mine or washing plant (\$1,000)
CALIFORNIA						
Placer Gold Industry						
All products and services, total.....	.....	xxx	xxx	4,808	xxx	20,879
Primary Products						
Material stripped.....	1,000 cu. yds.	120	xxx	xxx	(NA)	xxx
Material washed.....	....do.....	45,238	xxx	xxx	162,880	xxx
Gold.....	1,000 fine oz.	138.3	137.6	4,800	614.6	620,844
Secondary Products and Services						
Silver and other products and services ⁸.....	.....	78	77	8	750	635
From Placer Gravels In All Mineral Industries						
Gold.....	1,000 fine oz.	139.3	139.3	4,853	(NA)	(NA)
OTHER STATES (WASHINGTON AND OREGON)						
Placer Gold Industry						
All products and services, total.....	.....	xxx	xxx	176	xxx	1,903
Primary Products						
Material stripped.....	1,000 cu. yds.	3	xxx	xxx	(NA)	xxx
Material washed.....	....do.....	1,453	xxx	xxx	13,779	xxx
Gold ¹²	1,000 fine oz.	4.9	5.0	175	55.7	91,903
Secondary Products and Services						
Silver ¹²	1,000 fine oz.	1	1	1	9	
ALASKA						
Placer Gold Industry						
All products and services, total.....	.....	xxx	xxx	8,865	(NA)	xxx
Primary Products						
Material thawed.....	1,000 cu. yds.	6,400	xxx	xxx	(NA)	xxx
Material stripped.....	....do.....	9,607	xxx	xxx	(NA)	xxx
Material washed.....	....do.....	3,925	xxx	xxx	(NA)	xxx
Gold.....	1,000 fine oz.	1245.3	1247.1	8,645	(NA)	(NA)
Secondary Products and Services						
Silver ⁸	1,000 fine oz.	33	33	220	(NA)	(NA)
Electric energy sold, other products, and services.....	.....	xxx	xxx		xxx	(NA)
From Placer Gravels In All Mineral Industries						
Gold.....	1,000 fine oz.	(3)	(3)	8,630	(NA)	(NA)

D Withheld to avoid approximately disclosing figures for individual companies.

NA Not available.

¹Includes small quantities of gold recovered from placer gravels by establishments not classified in the placer gold industry. The figure for quantity shipped includes more than 1,000 fine ounces of gold reported shipped from Alaskan operations at prices exceeding \$35 an ounce.²Represents the value of crude perlite, sand, gravel, and electric energy sold and receipts for services performed for others.³Included with quantity figures above for gold produced and shipped by the placer gold industry. The quantities of gold produced and shipped by establishments not classified in the placer gold industry were very small.⁴Shipments of silver recovered from placer gravels as a secondary product of establishments not classified in the placer gold industry, were less than 500 fine ounces valued at less than \$500.⁵For 1939 no electric energy was reported sold by the placer gold industry.⁶The value of silver produced with gold is not available separately, but is included with the value of gold.⁷Represents thousands of fine ounces of silver.⁸In addition, during 1954 very small quantities of silver were produced by and shipped from placer gravel operations of establishments not classified in the placer gold industry.⁹Represents the value of gold and silver only. No secondary products other than silver and no receipts for services were reported.¹⁰In addition, during 1954 only very small quantities of gold were produced by and shipped from placer gravel operations of establishments not classified in the placer gold industry.¹¹For 1939, also includes New Mexico.¹²During 1954, no production or shipments were reported from placer gravel operations by establishments not classified in the placer gold industry.

Table 5C.—RECOVERABLE GOLD CONTENT OF PRODUCTS OF ALL MINERAL INDUSTRIES IN THE UNITED STATES, BY GEOGRAPHIC DIVISIONS, 1954 AND 1939, AND IN THE UNITED STATES AND ALASKA, 1954

(Thousands of fine ounces)

Product	United States and Alaska	United States		Northeast and South (Vermont, Pennsylvania, North Carolina, Georgia, and Tennessee)		West North Central (South Dakota)	Mountain		Pacific	
	(All mineral industries)	All mineral industries	Lode gold industry	All mineral industries	Lode gold industry	All mineral industries ²	All mineral industries	Lode gold industry	All mineral industries	Lode gold industry
1954 ¹										
Total recoverable gold.....	1,832.3	1,584.3	766.7	2.0	0.3	541.4	731.7	82.6	309.2	142.4
From lode deposits, total.....	1,414.0	1,413.1	766.7	2.0	0.3	541.4	704.8	82.6	164.9	142.4
Direct-smelting ores and old tailings ³	83.9	83.9	28.7	...	...	...	61.9	7.0	22.0	21.7
Ores.....	81.6	81.6	28.1	...	...	...	59.8	6.6	21.8	21.5
Old tailings ³	2.3	2.3	0.6	...	...	...	2.1	0.4	0.2	0.2
Concentrates.....	616.0	616.0	36.7	2.0	0.3	...	557.1		56.9	
Gold concentrates.....	41.6	41.6	36.7			...	5.5			
Copper, lead, zinc, and silver concentrates.....	574.4	574.4	...	2.0	0.3	...	551.6	75.6	56.9	120.7
Mill bullion and precipitates.....	714.1	713.2	701.3	...	...	541.4	85.8		86.0	
Recovered by amalgamation.....	426.4	425.5	416.0	...	...	363.8	12.4		49.3	
Recovered by cyanidation.....	287.7	287.7	285.3	...	...	177.6	73.4		36.7	
From placer gravels.....	418.3	171.2	xxx	...	xxx	...	26.9	...	144.3	...
1939 ⁴										
Total recoverable gold.....	(NA)	3,872.6	2,448.4	16.5	14.1	617.7	1,731.5	985.3	1,506.9	831.3
From lode deposits, total.....	(NA)	3,047.2	2,448.4	16.2	14.1	617.7	1,577.6	985.3	835.7	831.3
Direct-smelting ores ⁵	(NA)	381.4	220.2	60.1	...	1.2	7348.5	188.4	31.6	30.6
Concentrates.....	(NA)	850.4	417.0	82.0	...	0.3	7644.0	216.0	204.1	200.7
Mill bullion and precipitates.....	(NA)	1,815.4	1,811.2	914.1	914.1	616.2	10585.1	580.9	600.0	600.0
From placer gravels.....	(NA)	825.4	...	90.3	...	...	153.9	...	671.2	...

NA Not available.

¹Figures for 1954 represent shipments, except for concentrates for which only the recoverable content of production was reported. However, the tonnage of concentrates produced exceeded the tonnage shipped by less than 0.5 percent.²Represents only the lode gold industry. No establishments in other industries reported gold content in ores mined or material treated.³Includes recoverable gold content of ore sold to ore buyers.⁴Represents production. Revised to include the recoverable gold content of concentrates, bullion, and precipitates produced from purchased and custom milling ores, rather than the recoverable content of such milling ores shipped during the year.⁵Figures for old tailings are not available.⁶In addition to Pennsylvania, North Carolina, and Tennessee, includes New York, New Jersey, Virginia, and Colorado. The latter four States are not shown separately for the zinc ores industry.⁷Includes Washington, which is not shown separately for the copper, lead, and zinc ores industries, California, which is not shown separately for the copper and lead ores industries, and Texas, in which State operations in the silver ores industry recovered some gold.⁸Represents Pennsylvania, North Carolina, and Tennessee.⁹Represents Virginia, South Carolina, and Georgia.¹⁰Includes Texas, which is not shown separately in the silver ores industry.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 6.--GENERAL STATISTICS FOR LOBE AND PLACER GOLD ESTABLISHMENTS, CLASSIFIED BY NUMBER OF EMPLOYEES AND BY GEOGRAPHIC DIVISIONS AND STATES: 1954

(For explanation of column captions, see INTRODUCTION)

Industry, geographic division, State, and number of employees in establishment	Number of establish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expen- ditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
LODE GOLD									
United States, total.....	298	28,517	21,884	2,634	386	5,894	10,406	1,863	1,987
0.....	139	309	303	...	...	...	...	...	121
1-4.....	119	500	451	213	34	362	536	71	437
5-9.....	20	376	278	118	16	255	390	55	282
10-19.....	6	306	317	65	11	170	310	20	161
20-49.....	5	1,517	1,190	115	17	261	530	110	62
50-99.....	5	4,472	2,565	272	50	643	1,020	253	173
100-249.....	3	21,037	16,780	1,851	258	4,203	7,620	1,354	751
1,000-2,499.....	1								
West North Central (South Dakota)....	6	19,088	15,439	1,549	222	3,452	6,458	1,134	750
1-4.....	4	19,088	15,439	1,549	222	3,452	6,458	1,134	750
100-249.....	1								
1,000-2,499.....	1								
South Atlantic (North Carolina and Georgia).....	3	13	7	...	...	...	...	1	...
0.....	3	13	7	...	...	...	...	1	...
Mountain, total.....	175	4,369	2,763	458	72	1,002	1,513	238	867
0.....	80	152	157	...	...	...	...	...	77
1-4.....	76	471	399	137	22	239	352	50	297
5-9.....	11	141	240	59	8	146	209	33	212
10-19.....	3	3,605	1,967	52	5	118	227	13	129
20-49.....	1								
50-99.....	4								
Idaho.....	22	105	195	39	6	81	149	31	226
0.....	8	105	195	39	6	81	149	31	226
1-4.....	10								
5-9.....	3								
10-19.....	1								
Nevada.....	29	866	546	66	15	157	245	65	68
0.....	20	42	53	...	...	...	...	...	25
1-4.....	8	824	493	66	15	157	245	65	43
50-99.....	1								
Other States (Montana, Wyoming, Colorado, New Mexico, Arizona, and Utah).....	124	3,398	2,022	353	51	764	1,119	142	573
0.....	52	104	105	...	...	...	...	...	43
1-4.....	58	364	313	112	14	194	286	29	204
5-9.....	8	2,930	1,604	65	11	163	245	26	183
10-19.....	2								
20-49.....	1								
50-99.....	3								
Pacific, total.....	114	5,047	3,675	627	92	1,440	2,435	490	370
0.....	56	144	139	...	...	...	...	...	44
1-4.....	39	29	49	68	11	113	171	18	139
5-9.....	9	527	270	59	14	109	181	29	102
10-19.....	3								
20-49.....	4								
50-99.....	1	1,392	1,080	94	17	216	450	110	62
100-249.....	2	2,955	2,137	372	50	905	1,470	333	23
California.....	93	3,501	2,418	515	64	1,205	1,933	315	220
0.....	47	139	131	...	...	...	...	...	40
1-4.....	33	29	44	57	10	95	145	16	97
5-9.....	5	474	209	37	8	70	123	17	64
10-19.....	3								
20-49.....	3								
100-249.....	2	2,859	2,034	387	46	943	1,502	282	19
Other States (Washington and Oregon).....	21	1,546	1,257	112	28	235	502	175	150
0.....	9	5	8	...	...	...	...	...	4
1-4.....	6	...	5	11	1	18	26	2	42
5-9.....	4	1,541	1,244	101	27	217	476	173	104
20-49.....	1								
50-99.....	1								

(For explanation of column captions, see INTRODUCTION)

Industry, geographic division, State, and number of employees in establishment	Number of establish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expen- ditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
PLACER GOLD									
United States and Alaska.....	281	14,781	10,306	1,152	168	3,010	5,642	1,107	974
0.....	188	698	627	...	...	...	...	...	181
1-4.....	70	1,082	815	106	24	262	494	87	461
5-9.....	11	2,930	1,981	159	14	466	819	99	
10-19.....	5								
20-49.....	3								
100-249.....	3								
250-499.....	1	10,071	6,883	824	125	2,103	4,011	900	244
United States.....	136									5,916	3,614	501	55	1,255	1,997	314	353
0.....	91	207	211	...	...	...	...	...	89
1-4.....	36	136	105	54	16	100	157	61	157
5-9.....	4	5,573	3,298	24	3	55	86	9	83
10-19.....	1								
20-49.....	2								
100-249.....	2								
Mountain.....	47	932	481	84	11	207	323	49	171
0.....	24	105	96	...	...	...	...	...	41
1-4.....	20	85	54	35	7	72	109	25	130
5-9.....	2	742	331	49	4	135	214	24	
20-49.....	1								
Idaho.....	15	235	175	22	2	54	84	8	37
0.....	8	18	14	...	...	...	...	...	3
1-4.....	5	217	161	22	2	54	84	8	34
5-9.....	2								
Nevada.....	9	603	241	44	3	117	190	19	29
0.....	4	3	4	...	...	...	...	...	29
1-4.....	4	600	237	44	3	117	190	19	
20-49.....	1								
Other States (Montana, Wyoming, Colorado, New Mexico, and Arizona).....	23	94	65	18	6	36	49	22	105
0.....	12	84	65	18	6	36	49	22	37
1-4.....	11	10							
Pacific.....	89	4,984	3,133	417	44	1,048	1,674	265	182
0.....	67	102	115	...	...	...	...	...	48
1-4.....	16	51	51	19	9	28	48	36	36
5-9.....	2	4,831	2,967	30	2	60	99	4	82
10-19.....	1								
20-49.....	1								
100-249.....	2								
California.....	73	4,808	3,043	396	44	1,005	1,603	265	163
0.....	53	91	103	...	...	...	...	...	41
1-4.....	15	51	48	17	9	26	42	36	32
5-9.....	2	4,666	2,892	379	35	979	1,561	229	90
20-49.....	1								
100-249.....	2								
Other States (Washington and Oregon).....	16									176	90	21	...	43	71	...	19
0.....	14	176	90	21	...	43	71	...	7
1-4.....	1								
10-19.....	1								
Alaska.....	145	8,865	6,692	651	113	1,755	3,645	793	621
0.....	97	491	416	...	...	7	13	2	92
1-4.....	34	946	710	52	8	155	324	24	195
5-9.....	7	594	468	39	2	124	232	12	26
10-19.....	4	6,834	5,098	560	103	1,469	3,076	755	308
20-49.....	1								
100-249.....	1								
250-499.....	1								

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 7.—MONTHLY EMPLOYMENT IN THE LODE AND PLACER GOLD INDUSTRIES IN THE UNITED STATES AND ALASKA, BY GEOGRAPHIC DIVISION, STATE, AND TYPE OF OPERATION: 1954

Industry, geographic division, State, and type of operation	Average employment for the year ¹	Number of employees by month											
		January	February	March	April	May	June	July	August	September	October	November	December
United States and Alaska, total.....	4,380	3,660	3,642	3,931	4,229	4,596	4,994	5,052	4,940	4,742	4,446	4,136	3,923
Lode.....	3,060	2,885	2,870	2,943	2,986	2,995	3,130	3,199	3,159	3,154	3,122	3,053	3,022
Placer.....	1,320	775	772	988	1,243	1,601	1,864	1,853	1,781	1,588	1,324	1,083	901
GEOGRAPHIC DIVISION AND STATE													
United States, total.....	3,576	3,406	3,383	3,463	3,534	3,520	3,659	3,749	3,687	3,658	3,607	3,537	3,478
Lode.....	3,020	2,847	2,831	2,903	2,947	2,956	3,087	3,162	3,115	3,114	3,084	3,015	2,984
Placer.....	556	559	552	560	587	564	572	587	572	544	523	522	494
West North Central (South Dakota) ²	1,771	1,708	1,709	1,710	1,731	1,776	1,825	1,846	1,804	1,791	1,787	1,769	1,787
Mountain, total.....	625	531	526	568	597	609	635	684	677	688	656	620	562
Lode.....	530	474	466	494	513	520	540	565	554	573	545	512	473
Placer.....	95	57	60	74	84	89	95	119	123	115	111	108	89
Montana.....	45	31	30	33	34	33	34	55	58	57	54	52	50
Idaho, total.....	69	45	46	53	57	65	68	101	86	82	74	79	65
Lode.....	45	41	42	41	37	42	46	63	45	48	41	47	42
Placer.....	24	4	4	12	20	23	22	38	41	34	33	32	23
Colorado.....	318	305	294	311	324	337	352	349	339	325	302	273	263
Nevada, total.....	128	107	110	123	130	137	133	128	129	140	139	126	120
Lode.....	81	61	65	74	84	89	85	81	80	91	90	79	75
Placer.....	47	46	45	49	46	48	48	47	49	49	49	47	45
Other States (Wyoming, New Mexico, Arizona, and Utah).....	65	43	46	48	52	37	48	51	65	84	87	90	64
Pacific, total.....	1,180	1,167	1,148	1,185	1,206	1,135	1,199	1,219	1,206	1,179	1,164	1,148	1,129
Lode.....	719	665	656	699	703	660	722	751	757	750	752	734	724
Placer.....	461	502	492	486	503	475	477	468	449	429	412	414	405
California, total.....	1,019	1,020	996	1,035	1,048	978	1,041	1,028	1,021	1,017	1,010	997	985
Lode.....	579	542	533	578	578	536	596	590	598	598	602	586	582
Placer.....	440	478	463	457	470	442	445	438	423	419	408	411	403
Other States (Washington and Oregon), total.....	161	147	152	150	158	157	158	191	185	162	154	151	144
Lode.....	140	123	123	121	125	124	126	161	159	152	150	148	142
Placer.....	21	24	29	29	33	33	32	30	26	10	4	3	2
Alaska, total.....	804	254	259	468	695	1,076	1,335	1,303	1,253	1,084	839	599	445
Lode.....	40	38	39	40	39	39	43	37	44	40	38	38	38
Placer.....	764	216	220	428	656	1,037	1,292	1,266	1,209	1,044	801	561	407
TYPE OF OPERATION													
LODE GOLD INDUSTRY													
United States, total.....	3,020	2,847	2,831	2,903	2,947	2,956	3,087	3,162	3,115	3,114	3,084	3,015	2,984
Producing establishments, total.....	2,823	2,682	2,665	2,737	2,781	2,800	2,907	2,932	2,916	2,894	2,863	2,819	2,801
Open-pit mines.....	102	69	70	92	104	112	112	110	113	113	118	104	99
Combination open-pit and underground mines.....	12	15	12	12	12	12	12	14	14	12	8	11	11
Underground mines.....	2,639	2,531	2,523	2,567	2,592	2,604	2,708	2,730	2,720	2,701	2,660	2,639	2,626
Mills only and producing mills with nonproducing mines.....	70	67	60	66	73	72	75	78	69	68	77	65	65
Nonproducing establishments.....	197	165	166	166	166	156	180	230	199	220	221	196	183
PLACER GOLD INDUSTRY													
United States and Alaska, total....	1,320	775	772	988	1,243	1,601	1,864	1,853	1,781	1,588	1,324	1,083	901
Producing establishments, total.....	1,273	748	746	960	1,204	1,550	1,812	1,781	1,715	1,524	1,273	1,035	870
Bucket line dredging.....	1,152	713	715	915	1,123	1,385	1,603	1,559	1,495	1,318	1,165	989	831
Dragline dredging.....	49	15	10	17	36	68	77	85	82	78	57	28	22
Hydraulic mining.....	38	4	4	9	19	61	81	84	83	79	79	3	3
Ground sluicing.....	5	...	...	...	2	3	8	9	8	6	...	...	...
Other and mining method not specified ⁴	29	16	17	19	24	33	43	44	47	43	32	15	14
Nonproducing establishments.....	47	27	26	28	39	51	52	72	66	64	51	48	31
United States, total.....	556	559	552	560	587	564	572	587	572	544	523	522	494
Producing establishments, total.....	514	534	528	535	553	524	529	525	516	490	475	476	465
Bucket line dredging.....	473	502	502	503	522	484	482	470	463	444	434	437	431
Dragline dredging.....	23	13	7	14	14	25	28	34	31	30	26	25	20
Other and mining method not specified.....	18	19	19	18	17	15	19	21	22	16	15	14	14
Nonproducing establishments.....	42	25	24	25	34	40	43	62	56	54	48	46	29
Alaska, total.....	764	216	220	428	656	1,037	1,292	1,266	1,209	1,044	801	561	407
Producing establishments, total.....	759	214	218	425	651	1,026	1,283	1,256	1,199	1,034	798	559	405
Bucket line dredging.....	679	211	213	412	601	901	1,121	1,089	1,032	874	731	552	400
Dragline dredging.....	26	2	3	3	22	43	49	51	51	48	31	3	2
Hydraulic mining.....	37	1	1	7	17	59	81	83	81	78	19	3	3
Other and mining method not specified.....	17	...	1	3	11	23	32	33	35	34	17	1	...
Nonproducing establishments.....	5	2	2	3	5	11	9	10	10	10	3	2	2

¹Represents the sum of the average employment figures for the year as shown on the separate establishment reports. These are the averages shown in other tables of this report. Because of rounding, the sum of such average figures may differ slightly from an average of the January to December totals shown. ²Lode only. No establishments classified in the placer gold industry were reported. ³Includes a small number of employees for Georgia. ⁴Represents methods such as suction dredging, panning, dry placering, and drift mining, and reports in which the principal method was not specified.

Table 8A.—SELECTED STATISTICS FOR PRODUCING LODE GOLD ESTABLISHMENTS IN THE UNITED STATES, CLASSIFIED BY OUTPUT PER MAN-HOUR: 1954

(For explanation of column captions, see INTRODUCTION)

Output per man-hour ¹	Number of establishments	Number of mines			Number of mills	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
		Open-pit	Combination open-pit and under-ground	Under-ground				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
Total.....	184	29	4	140	105	28,517	21,699	2,470	353	5,606	9,929	1,766	1,473
Less than \$2.00.....	9	1	1	7	6	81	92	50	2	92	146	4	80
\$2.00-\$2.99.....	5	...	...	5	4	2,235	1,637	375	33	921	1,334	159	28
\$3.00-\$3.99.....	3	...	...	3	2	1,838	1,483	219	42	496	776	201	112
\$4.00-\$4.99.....	2	...	1	1	...								
\$5.00-\$5.99.....	3	1	...	2	3	20,433	16,429	1,563	239	3,535	6,731	1,268	779
\$6.00-\$6.99.....	1	...	...	1	1								
\$7.00-\$7.99.....	1	...	...	1	1	2,418	847	14	...	27	46	...	...
\$8.00-\$9.99.....	1	...	...	...	1								
\$10.00-\$14.99.....	1	...	...	1	...	1,512	1,211	58	18	129	253	91	90
\$15.00-\$19.99.....	1	...	...	...	1			191	19	406	643	43	384
Unclassified ²	157	27	2	119	86								

Table 8B.—SELECTED STATISTICS FOR PRODUCING PLACER GOLD ESTABLISHMENTS IN THE UNITED STATES AND ALASKA, CLASSIFIED BY OUTPUT PER MAN-HOUR: 1954

(For explanation of column captions, see INTRODUCTION)

Output per man-hour ¹	Number of establishments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
United States and Alaska, total.....	237	14,781	10,187	1,120	153	2,955	5,538	1,052	715
Less than \$2.00.....	6	971	492	174	31	466	871	233	87
\$2.00-\$2.99.....	1								
\$3.00-\$3.99.....	1	11,115	7,584	800	104	2,090	3,932	732	253
\$4.00-\$4.99.....	4								
\$5.00-\$5.99.....	4	...	...	...	...	...	...	...	...
\$6.00-\$6.99.....	...								
\$7.00-\$7.99.....	3	419	304	15	5	46	95	35	16
\$8.00-\$9.99.....	...								
\$10.00-\$14.99.....	1	...	...	...	...	...	...	...	...
\$15.00 and over.....	...								
Unclassified ²	217	2,276	1,807	131	13	353	640	52	359
United States, total.....	103	5,916	3,517	471	43	1,206	1,915	264	169
Less than \$2.00.....	3	181	66	22	...	53	78	...	19
\$2.00-\$2.99.....	...								
\$3.00-\$3.99.....	1	5,360	3,147	412	37	1,080	1,719	249	16
\$4.00-\$4.99.....	3								
\$5.00-\$5.99.....	2	...	...	...	...	...	...	...	...
\$6.00 and over.....	...								
Unclassified ²	94	375	304	37	6	73	118	15	134
Alaska, total.....	134	8,865	6,670	649	110	1,749	3,623	788	546
Less than \$2.00.....	3	6,545	4,863	152	31	413	793	233	68
\$2.00-\$2.99.....	1								
\$3.00-\$3.99.....	...	...	...	...	...	...	...	...	...
\$4.00-\$4.99.....	1								
\$5.00-\$5.99.....	2	...	...	...	...	...	...	...	...
\$6.00-\$6.99.....	...								
\$7.00-\$7.99.....	3	419	304	15	5	46	95	35	16
\$8.00-\$9.99.....	...								
\$10.00-\$14.99.....	1	...	...	...	...	...	...	...	...
\$15.00 and over.....	...								
Unclassified ²	123	1,901	1,503	94	7	280	522	37	225

¹Represents gross value of shipments for each establishment (exclusive of the value of sales of electric energy) per man-hour of all production, development, and related workers.²Principally represents reports indicating that a substantial proportion of the work was performed by contractors, for whom employee man-hours are not included above, and other reports specifying that a significant portion of the man-hours reported referred to exploration and development work. This group also includes a large number of small establishments at which proprietors or partners regularly worked at production or development work; man-hours for these proprietors are not included above. Significant ratios of man-hours to value of shipments could not be computed for these groups.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 9.—GENERAL STATISTICS FOR LODE GOLD ESTABLISHMENTS IN THE UNITED STATES AND FOR PLACER GOLD ESTABLISHMENTS IN THE UNITED STATES AND ALASKA, CLASSIFIED BY THE RATIO OF WAGES AND SALARIES TO VALUE ADDED IN MINING, BY GEOGRAPHIC DIVISIONS: 1954

(For explanation of column captions, see INTRODUCTION)

Geographic division and ratio of wages and salaries to value added in mining	Number of establishments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
United States and Alaska (placer only), total.....	281	14,781	10,306	1,152	168	3,010	5,642	1,107	974
Less than 0.30.....	14	686	614	20	2	51	111	8	61
0.30-0.39.....	11	265	234	15	1	44	79	6	36
0.40-0.49.....	3	261	209	12	4	29	57	29	98
0.50-0.59.....	10	1,042	803	61	6	201	391	41	
0.60-0.69.....	11	9,611	6,706	706	95	1,806	3,432	672	215
0.70-0.79.....	5	405	278	49	2	120	195	11	71
0.80-0.89.....	7	1,093	532	90	5	261	421	25	37
0.90-0.99.....	...	...	...	...	...	...	...	...	...
1.00 and over.....	40	847	406	199	53	498	956	315	285
Unclassified ¹	180	571	524	...	...	...	...	...	171
United States, total.....	434	34,433	25,498	3,135	441	7,149	12,403	2,177	2,340
Less than 0.30.....	9	348	180	13	3	21	30	3	14
0.30-0.39.....	7	641	501	36	3	76	149	12	12
0.40-0.49.....	11	22,006	17,068	1,635	249	3,685	6,903	1,239	1,014
0.50-0.59.....	13	1,213	988	94	16	213	391	119	87
0.60-0.69.....	8	5,192	3,241	416	44	1,076	1,717	271	105
0.70-0.79.....	5	1,011	716	161	14	354	505	48	67
0.80-0.89.....	11	1,187	882	161	16	381	643	99	373
0.90-0.99.....	3								
1.00 and over.....	143	2,328	1,414	619	96	1,343	2,065	386	469
Unclassified ¹	224	507	508	...	...	...	...	...	199
Lode, total.....	298	28,517	21,884	2,634	386	5,894	10,406	1,863	1,987
Less than 0.30.....	7	933	627	44	6	88	164	15	14
0.30-0.39.....	4								
0.40-0.49.....	9	23,069	17,942	1,712	264	3,863	7,245	1,353	1,081
0.50-0.59.....	8								
0.60-0.69.....	4	1,491	1,021	193	24	436	634	94	61
0.70-0.79.....	2								
0.80-0.89.....	8	447	574	104	12	236	410	80	336
0.90-0.99.....	3								
1.00 and over.....	118	2,287	1,428	581	80	1,271	1,953	321	378
Unclassified ¹	135	290	292	...	...	...	...	...	117
Placer, total.....	136	5,916	3,614	501	55	1,255	1,997	314	353
Less than 0.30.....	2	56	54	5	...	9	15	...	12
0.30-0.39.....	3								
0.40-0.49.....	2	150	114	17	1	35	49	5	20
0.50-0.59.....	5								
0.60-0.69.....	4	4,712	2,936	384	34	994	1,588	225	111
0.70-0.79.....	3								
0.80-0.89.....	3	740	308	57	4	145	233	19	37
0.90-0.99.....	...	...	...	...	...	...	...	...	...
1.00 and over.....	25	41	(2)	38	16	72	112	65	91
Unclassified ¹	89	217	216	...	...	...	...	...	82
West North Central, South Atlantic, and Mountain, total.....	231	24,402	18,690	2,091	305	4,661	8,294	1,422	1,788
Less than 0.30.....	7	460	265	19	3	40	61	3	15
0.30-0.39.....	4								
0.40-0.49.....	8	21,274	16,469	1,605	235	3,602	6,699	1,182	1,007
0.50-0.59.....	7	150	122	19	2	40	58	6	
0.60-0.69.....	4	1,534	1,059	198	24	452	661	94	82
0.70-0.79.....	3								
0.80-0.89.....	8	613	465	80	8	195	335	47	310
0.90-0.99.....	1								
1.00 and over.....	81	110	50	170	33	332	480	90	252
Unclassified ¹	108	261	260	...	...	...	...	...	122
Lode, total.....	184	23,470	18,209	2,007	294	4,454	7,971	1,373	1,617
Less than 0.30.....	6	21,701	16,728	1,619	238	3,632	6,744	1,185	1,011
0.30-0.39.....	3								
0.40-0.49.....	7	1,525	1,238	232	28	521	792	122	329
0.50-0.59.....	4								
0.60-0.69.....	3	87	78	148	27	285	412	65	196
0.70-0.79.....	2								
0.80-0.89.....	6	157	165	...	...	...	...	...	81
0.90-0.99.....	1								
1.00 and over.....	67	87	78	148	27	285	412	65	196
Unclassified ¹	85	157	165	...	...	...	...	...	81

See footnotes at end of table.

Table 9.—GENERAL STATISTICS FOR LODE GOLD ESTABLISHMENTS IN THE UNITED STATES AND FOR PLACER GOLD ESTABLISHMENTS IN THE UNITED STATES AND ALASKA, CLASSIFIED BY THE RATIO OF WAGES AND SALARIES TO VALUE ADDED IN MINING, BY GEOGRAPHIC DIVISIONS: 1954—Continued

Geographic division and ratio of wages and salaries to value added in mining	Number of establishments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
West North Central, South Atlantic, and Mountain—Con.									
Placer, total ¹	47	932	481	84	11	207	323	49	171
Less than 0.30.....	1	183	128	5	...	10	16	...	11
0.30-0.39.....	1								
0.40-0.49.....	1								
0.50-0.59.....	3								
0.60-0.69.....	1	622	286	46	4	126	204	19	63
0.70-0.79.....	1								
0.80-0.89.....	2								
0.90-0.99.....	...								
1.00 and over.....	14	23	(4)	22	6	47	68	25	56
Unclassified ¹	23	104	95	41
Pacific, total.....	203	10,031	6,808	1,044	136	2,488	4,109	755	552
Less than 0.30.....	2	529	416	30	3	57	118	12	11
0.30-0.39.....	3								
0.40-0.49.....	3								
0.50-0.59.....	6								
0.60-0.69.....	4	4,669	2,898	379	34	978	1,561	225	90
0.70-0.79.....	2								
0.80-0.89.....	3								
0.90-0.99.....	2								
1.00 and over.....	62	2,218	1,364	449	63	1,011	1,585	296	217
Unclassified ¹	116	246	248	77
Lode.....	114	5,047	3,675	627	92	1,440	2,435	490	370
Less than 0.30.....	1	2,301	1,841	129	31	303	642	182	84
0.30-0.39.....	1								
0.40-0.49.....	2								
0.50-0.59.....	4								
0.60-0.69.....	1	413	357	65	8	151	252	52	68
0.70-0.79.....	...								
0.80-0.89.....	2								
0.90-0.99.....	2								
1.00 and over.....	51	2,200	1,350	433	53	986	1,541	256	182
Unclassified ¹	50	133	127	36
Placer.....	89	4,984	3,133	417	44	1,048	1,674	265	182
Less than 0.30.....	1	23	40	6	...	10	13	...	21
0.30-0.39.....	2								
0.40-0.49.....	1								
0.50-0.59.....	2								
0.60-0.69.....	3	4,830	2,958	395	34	1,013	1,617	225	85
0.70-0.79.....	2								
0.80-0.89.....	1								
0.90-0.99.....	...								
1.00 and over.....	11	18	14	16	10	25	44	40	35
Unclassified ¹	66	113	121	41
Alaska (placer only), total.....	145	8,865	6,692	651	113	1,755	3,645	793	621
Less than 0.30.....	12	895	794	30	3	86	175	14	85
0.30-0.39.....	8								
0.40-0.49.....	1								
0.50-0.59.....	5								
0.60-0.69.....	7	5,304	4,048	371	63	932	2,039	458	175
0.70-0.79.....	2								
0.80-0.89.....	4								
0.90-0.99.....	...								
1.00 and over.....	15	806	420	161	37	426	844	250	194
Unclassified ¹	91	354	308	89

¹Represents establishments which reported either no wages and salaries or paid less than \$500 for wages and salaries.²The cost of supplies, fuel, purchased electric energy, contract work, and purchased machinery installed exceeded the value of shipments and capital expenditures by \$14,000.³Represents Mountain only. No placer gold operations were reported in the West North Central and South Atlantic divisions.⁴The cost of supplies, fuel, purchased electric energy, contract work, and purchased machinery installed exceeded the value of shipments and capital expenditures by \$28,000.

Table 10.—HORSEPOWER OF POWER EQUIPMENT USED IN THE LODE GOLD INDUSTRY IN THE UNITED STATES

(For explanation of line and column

	Power equipment	Lode gold and placer gold industries							
		United States and Alaska		United States			West North Central	Mountain	
		Lode and placer	Placer	Total	Lode	Placer		Total	Lode Placer
1	Aggregate horsepower per production worker...	74	129	56	42	128	24	89	73 (2)
2	Aggregate horsepower (prime movers and electric motors driven by purchased energy), total.....	284,322	148,851	175,836	111,868	63,968	37,346	48,435	33,209 15,226
3	Loading equipment.....	56,102	47,818	43,908	8,154	35,754	1,362	8,469	3,463 5,006
4	Transportation equipment:								
5	Highway type.....	51,720	28,696	32,909	22,424	10,485	8,455	8,618	5,918 2,700
6	Other.....	51,126	38,888	15,737	12,102	3,635	3,324	4,717	3,056 1,661
7	All other equipment.....	125,374	33,449	83,282	69,188	14,094	24,205	26,631	20,772 5,859
8	Prime movers (horsepower), total.....	201,010	113,501	92,573	63,906	28,667	26,912	32,722	19,184 13,538
9	Loading equipment.....	25,330	19,837	13,136	5,363	7,773	1,227	5,853	1,865 3,988
10	Transportation equipment:								
11	Highway type.....	51,720	28,696	32,909	22,424	10,485	8,455	8,618	5,918 2,700
12	Other.....	43,560	38,507	8,171	4,917	3,254	1,570	3,865	2,338 1,527
13	All other equipment.....	80,400	26,461	38,357	31,202	7,155	15,660	14,386	9,063 5,323
14	Driving generators.....	72,668	32,852	23,409	17,449	5,960	13,197	8,139	2,424 5,715
15	Not driving generators.....	128,342	80,649	69,164	46,457	22,707	13,715	24,583	16,760 7,823
16	Electric motors (horsepower), total.....	185,628	75,470	137,290	97,533	39,757	57,586	21,963	15,862 6,101
17	Loading equipment.....	44,190	40,775	33,339	3,415	29,924	745	4,573	1,612 2,961
18	Transportation equipment.....	22,380	1,703	18,390	17,982	408	12,524	891	730 161
19	All other equipment.....	119,058	32,992	85,561	76,136	9,425	44,317	16,499	13,520 2,979
20	Driven by purchased energy.....	83,312	35,350	83,263	47,962	35,301	10,434	15,713	14,025 1,688
21	Driven by energy generated at the establishment.....	102,316	40,120	54,027	49,571	4,456	47,152	6,250	1,837 4,413

	Power equipment	Type of operation—Continued						
		Placer gold industry (United States and Alaska)						
		All establishments	Producing establishments					Nonproducing establishments
			Total	Bucket line dredging	Dragline dredging	Hydrauliclicking	Other	
1	Aggregate horsepower per production worker....	129	123	96	(2)	(2)	(2)	(2)
2	Aggregate horsepower (prime movers and electric motors driven by purchased energy), total.....	148,851	137,798	97,090	10,856	14,907	14,945	11,053
3	Loading equipment.....	47,818	42,385	32,920	4,679	2,129	2,657	5,433
4	Transportation equipment:							
5	Highway type.....	28,696	26,936	17,064	2,436	4,156	3,280	1,760
6	Other.....	38,888	36,876	23,912	1,961	5,455	5,548	2,012
7	All other equipment.....	33,449	31,601	23,194	1,780	3,167	3,460	1,848
8	Prime movers (horsepower), total.....	113,501	105,214	65,596	10,614	14,907	14,097	8,287
9	Loading equipment.....	19,837	16,166	6,709	4,671	2,129	2,657	3,671
10	Transportation equipment:							
11	Highway type.....	28,696	26,936	17,064	2,436	4,156	3,280	1,760
12	Other.....	38,507	36,742	23,912	1,827	5,455	5,548	1,765
13	All other equipment.....	26,461	25,370	17,911	1,680	3,167	2,612	1,091
14	Driving generators.....	32,852	32,725	30,764	987	558	416	127
15	Not driving generators.....	80,649	72,489	34,832	9,627	14,349	13,681	8,160
16	Electric motors (horsepower), total.....	75,470	72,704	70,425	543	325	1,411	2,766
17	Loading equipment.....	40,775	39,013	38,797	216	...	...	1,762
18	Transportation equipment.....	1,703	1,456	1,295	161	...	...	247
19	All other equipment.....	32,992	32,235	30,333	166	325	1,411	757
20	Driven by purchased energy.....	35,350	32,584	31,494	242	...	848	2,766
21	Driven by energy generated at the establishment.....	40,120	40,120	38,931	301	325	563	...

¹Represents lode gold only. No establishments classified in the placer gold industry were reported.²Not computed since the number of working proprietors exceeds one-third of the number of production workers.

AND IN THE PLACER GOLD INDUSTRY IN THE UNITED STATES AND ALASKA, BY GEOGRAPHIC DIVISIONS AND TYPE OF OPERATION: 1954
 captions, see INTRODUCTION)

Lode gold and placer gold industries—Continued					Type of operation							
					Lode gold industry (United States)							
Pacific			Alaska		All establish- ments	Producing establishments					Nonpro- ducing establish- ments	
Total	Lode	Placer	Lode and placer	Placer		Total	Open- pit mines	Combination open-pit and underground mines	Under- ground mines	Mills only and producing mills with nonproducing mines		
86	66	117	158	130	42	39	(²)	85	37	90	88	1
90,055	41,313	48,742	108,486	84,883	111,868	97,405	6,774	594	84,838	5,199	14,463	2
34,077	3,329	30,748	12,194	12,064	8,154	7,099	1,107	54	5,838	100	1,055	3
15,836	8,051	7,785	18,811	18,211	22,424	19,529	1,613	205	16,981	730	2,895	4
7,696	5,722	1,974	35,389	35,253	12,102	11,067	960	125	9,782	200	1,035	5
32,446	24,211	8,235	42,092	19,355	69,188	59,710	3,094	210	52,237	4,169	9,478	6
32,939	17,810	15,129	108,437	84,834	63,906	54,857	6,688	394	46,893	882	9,049	7
6,056	2,271	3,785	12,194	12,064	5,363	4,496	1,107	54	3,235	100	867	8
15,836	8,051	7,785	18,811	18,211	22,424	19,529	1,613	205	16,981	730	2,895	9
2,736	1,009	1,727	35,389	35,253	4,917	4,327	960	...	3,367	...	590	10
8,311	6,479	1,832	42,043	19,306	31,202	26,505	3,008	135	23,310	52	4,697	11
2,073	1,828	245	49,259	26,892	17,449	16,206	1,337	50	14,819	...	1,243	12
30,866	15,982	14,884	59,178	57,942	46,457	38,651	5,351	344	32,074	882	7,806	13
57,741	24,085	33,656	48,338	35,713	97,533	91,919	1,355	205	86,042	4,317	5,614	14
28,021	1,058	26,963	10,851	10,851	3,415	3,227	...	...	3,227	...	188	15
4,975	4,728	247	3,990	1,295	17,982	17,537	...	125	17,212	200	445	16
24,745	18,299	6,446	33,497	23,567	76,136	71,155	1,355	80	65,603	4,117	4,981	17
57,116	23,503	33,613	49	49	47,962	42,548	86	200	37,945	4,317	5,414	18
625	582	43	48,289	35,664	49,571	49,371	1,269	5	48,097	...	200	19

Type of operation—Continued												
Placer gold industry (United States and Alaska)—Continued												
All establish- ments	Producing establishments				Nonpro- ducing establish- ments	All establish- ments	Producing establishments					Nonpro- ducing establish- ments
	Total	Bucket line dredging	Dragline dredging	Other			Total	Bucket line dredging	Dragline dredging	Hydrau- licking	Other	
128	118	111	(²)	(²)	(²)	130	126	92	200	(²)	(²)	(²)
63,968	55,806	43,967	6,048	5,791	8,162	84,883	81,992	53,123	4,808	14,548	9,513	2,891
35,754	31,461	27,515	2,767	1,179	4,293	12,064	10,924	5,405	1,912	2,129	1,478	1,140
10,485	9,295	6,074	1,551	1,670	1,190	18,211	17,641	10,990	885	3,982	1,784	570
3,635	2,403	750	1,065	588	1,232	35,253	34,473	23,162	896	5,335	5,080	780
14,094	12,647	9,628	665	2,354	1,447	19,355	18,954	13,566	1,115	3,102	1,171	401
28,667	23,257	12,479	5,831	4,947	5,410	84,834	81,957	53,117	4,783	14,548	9,509	2,877
7,773	5,242	1,304	2,759	1,179	2,531	12,064	10,924	5,405	1,912	2,129	1,478	1,140
10,485	9,295	6,074	1,551	1,670	1,190	18,211	17,641	10,990	885	3,982	1,784	570
3,254	2,269	750	931	588	985	35,253	34,473	23,162	896	5,335	5,080	780
7,155	6,451	4,351	590	1,510	704	19,306	18,919	13,560	1,090	3,102	1,167	387
5,960	5,960	4,668	871	421	...	26,892	26,765	26,096	116	553	...	127
22,707	17,297	7,811	4,960	4,526	5,410	57,942	55,192	27,021	4,667	13,995	9,509	2,750
39,757	37,005	35,085	513	1,407	2,752	35,713	35,699	35,340	30	325	4	14
29,924	28,162	27,951	211	...	1,762	10,851	10,851	10,846	5	...	...	...
408	161	...	161	...	247	1,295	1,295	1,295	...	...	...	...
9,425	8,682	7,134	141	1,407	743	23,567	23,553	23,199	25	325	4	14
35,301	32,549	31,488	217	844	2,752	49	35	6	25	...	4	14
4,456	4,456	3,597	296	563	...	35,664	35,664	35,334	5	325	...	...

Table 11.—NUMBER OF POWER LOADING MACHINES IN THE LODE AND PLACER GOLD INDUSTRIES IN

Part I.—Surface

Type of loading equipment		United States and Alaska (1954)			United States		
		Total	Lode	Placer	1954		
					Total	Lode	Placer
1	Surface loading equipment, total.....	3726	73	3653	3192	72	3120
	By kind of power used:						
2	Steam.....	1	...	1	...	...	...
3	Electric and Diesel-electric.....	102	15	87	59	15	44
4	Diesel.....	160	16	144	51	15	36
5	Gasoline and other.....	102	42	60	70	42	28
6	Power shovels, total.....	47	24	23	34	23	11
	By kind of power used:						
7	Steam.....	...	...	...	...	...	...
8	Electric and Diesel-electric.....	1	1	...	1	1	...
9	Diesel.....	23	9	14	14	8	6
10	Gasoline and other.....	23	14	9	19	14	5
	By dipper or bucket capacity (cubic yards):						
11	Less than 3.....	43	20	23	30	19	11
12	3-5 inclusive.....	4	4	...	4	4	...
13	More than 5.....	...	...	...	...	...	...
14	Dragline excavators, total.....	81	6	75	36	6	30
	By kind of power used:						
15	Steam.....	...	...	...	...	...	...
16	Electric and Diesel-electric.....	3	...	3	2	...	2
17	Diesel.....	59	...	59	21	...	21
18	Gasoline and other.....	19	6	13	13	6	7
	By dipper or bucket capacity (cubic yards):						
19	Less than 3.....	76	6	70	34	6	28
20	3-5 inclusive.....	3	...	3	2	...	2
21	More than 5.....	2	...	2	...	...	...
22	Scraper loaders, total.....	29	6	23	10	6	4
	By kind of power used:						
23	Electric and Diesel-electric.....	1	1	...	1	1	...
24	Diesel.....	19	2	17	3	2	1
25	Gasoline and other.....	9	3	6	6	3	3
	By rated horsepower:						
26	Less than 10.....	3	1	2	1	1	...
27	10-25 inclusive.....	9	3	6	3	3	...
28	26-100 inclusive.....	14	2	12	5	2	3
29	More than 100.....	3	...	3	1	...	1
30	Cranes and hoists, total.....	37	34	3	36	34	2
	By kind of power used:						
31	Electric and Diesel-electric.....	13	13	...	13	13	...
32	Diesel.....	2	2	...	2	2	...
33	Gasoline and other.....	22	19	3	21	19	2
34	Connected-bucket dredges, total.....	458	...	458	27	...	27
	By kind of power used:						
35	Electric and Diesel-electric.....	440	...	440	25	...	25
36	Diesel.....	18	...	18	2	...	2
37	Gasoline and other.....	...	...	...	...	...	...
38	Hydraulic giants, total.....	3406	...	3406	319	...	319
	By kind of power used:						
39	Steam.....	(3)	...	(3)	(3)	...	(3)
40	Electric and Diesel-electric.....	332	...	332	37	...	37
41	Diesel.....	310	...	310	(3)	...	(3)
42	Gasoline and other.....	32	...	32	(3)	...	(3)
43	Pumps, total.....	38	...	38	8	...	8
	By kind of power used:						
44	Electric and Diesel-electric.....	3	...	3	3	...	3
45	Diesel.....	16	...	16	...	...	...
46	Gasoline and other.....	19	...	19	5	...	5
47	Floating washing plants, total.....	11	...	11	9	...	9
	By kind of power used:						
48	Electric and Diesel-electric.....	7	...	7	5	...	5
49	Diesel.....	2	...	2	2	...	2
50	Gasoline and other.....	2	...	2	2	...	2
51	All other types of equipment, total.....	19	3	16	13	3	10
	By kind of power used:						
52	Electric and Diesel-electric.....	2	...	2	2	...	2
53	Diesel.....	11	3	8	7	3	4
54	Gasoline and other.....	6	...	6	4	...	4

See footnotes at end of table.

THE UNITED STATES: 1954 AND 1939, AND BY GEOGRAPHIC DIVISION AND FOR ALASKA: 1954

loading equipment

United States--Continued			1954								
			United States							Alaska	
1939 ¹			West North Central ²	Mountain			Pacific				
Total	Lode	Placer		Total	Lode	Placer	Total	Lode	Placer	Total	Placer ³
394	88	306	8	79	30	49	³ 105	34	³ 71	³ 534	³ 533
3	1	2	...	...	...	...	...	...	...	1	1
110	13	97	1	22	6	16	36	8	28	43	43
} 281	74	207	{ 3	24	5	19	24	7	17	109	108
			4	33	19	14	33	19	14	32	32
96	58	38	6	14	9	5	14	8	6	13	12
2	...	2	...	...	...	...	...	...	...	...	...
4	2	2	...	1	1	...	...	...	...	...	...
} 90	56	34	{ 2	5	2	3	7	4	3	9	8
			4	8	6	2	7	4	3	4	4
93	57	36	6	10	5	5	14	8	6	13	12
2	...	2	...	4	4	...	...	...	...	...	...
1	1	...	...	...	...	...	...	...	...	...	...
193	9	184	...	22	4	18	14	2	12	45	45
1	1	...	...	...	...	...	...	...	...	...	...
35	2	33	...	1	...	1	1	...	1	1	1
} 157	6	151	{ 12	...	...	12	9	...	9	38	38
			...	9	4	5	4	2	2	6	6
181	8	173	...	22	4	18	12	2	10	42	42
10	1	9	...	...	...	...	2	...	2	1	1
2	...	2	...	...	...	...	...	...	...	2	2
31	17	14	1	2	2	...	7	3	4	19	19
9	9	...	1	...	...	...	...	...	...	...	...
} 22	8	14	{ 1	...	...	...	3	2	1	16	16
			...	2	2	...	4	1	3	3	3
16	5	11	...	...	...	...	1	1	...	2	2
10	8	2	...	2	2	...	1	1	...	6	6
4	3	1	1	...	...	...	4	1	3	9	9
1	1	...	...	...	...	...	1	...	1	2	2
...	...	...	1	13	13	...	22	20	2	1	1
...	...	...	...	5	5	...	8	8	...	...	...
...	...	...	1	1	1	...	...	...	...	...	...
...	...	...	...	7	7	...	14	12	2	1	1
67	...	67	...	6	...	6	21	...	21	⁴ 31	⁴ 31
62	...	62	...	6	...	6	19	...	19	⁴ 15	⁴ 15
} 5	...	5	{ 1	...	...	...	2	...	2	16	16
		
(⁵)	...	(⁵)	...	5	...	5	³ 14	...	³ 14	³ 387	³ 387
			...	...	...	...	(³)	...	(³)	³ 1	³ 1
} (⁵)	...	(⁵)	{ 1	...	...	5	³ 2	...	³ 2	³ 25	³ 25
			...	...	...	...	(³)	...	(³)	³ 10	³ 10
			...	...	...	...	(³)	...	(³)	³ 2	³ 2
(⁶)	(⁶)	(⁶)	...	6	...	6	2	...	2	30	30
			...	3	...	3	...	...	...	...	...
} (⁶)	(⁶)	(⁶)	{ 1	...	...	...	...	...	...	16	16
			...	3	...	3	2	...	2	14	14
...	...	...	...	2	...	2	7	...	7	2	2
...	...	...	...	1	...	1	4	...	4	2	2
...	...	...	...	...	...	...	2	...	2	...	...
...	...	...	...	1	...	1	1	...	1	...	...
77	74	73	...	89	82	87	94	91	93	106	6
...	...	...	...	...	...	...	2	...	2	...	...
} 7	4	3	{ 1	6	2	4	1	1	...	4	4
			...	3	...	3	1	...	1	2	2

MINERAL INDUSTRIES--INDUSTRY STATISTICS

Table 11.—NUMBER OF POWER LOADING MACHINES IN THE LODE AND PLACER GOLD INDUSTRIES IN THE UNITED STATES: 1954 AND 1939, AND BY GEOGRAPHIC DIVISION AND FOR ALASKA: 1954

Part II.—Underground equipment¹¹

Type of loading equipment	United States						1954—Lode gold industry		
	1954			1939 ¹			West North Central	Mountain	Pacific
	Total	Lode	Placer	Total	Lode	Placer			
Underground loading equipment, total..	339	336	123	222	215	7	136	45	155
By kind of power used:									
Compressed air.....	265	264	1	159	153	6	92	40	132
Electric and Diesel-electric....	68	68	...	62	61	1	44	2	22
Diesel.....	3	2	1	1	1	...	...	2	...
Gasoline and other.....	3	2	1	...	...	...	...	1	1
Shovel loaders requiring a minimum working height of 8 feet or less, total.	123	122	1	86	84	2	79	18	25
By kind of power used:									
Compressed air.....	79	79	...	75	73	2	37	17	25
Electric and Diesel-electric.....	42	42	...	11	11	...	42	...	...
Diesel.....	1	...	1	...	...	...	...	...	...
Gasoline and other.....	1	1	...	...	...	...	...	1	...
Shovel loaders requiring a minimum working height of more than 8 feet, total.....	61	60	1	6	6	...	48	1	11
By kind of power used:									
Compressed air.....	50	50	...	6	6	...	48	1	1
Electric and Diesel-electric.....	10	10	...	...	...	...	...	...	10
Gasoline and other.....	1	...	1	...	...	...	...	...	...
Scraper loaders (including slushers), total.....	151	150	1	128	123	5	8	26	116
By kind of power used:									
Compressed air.....	133	132	1	77	73	4	7	22	103
Electric and Diesel-electric.....	15	15	...	51	50	1	1	2	12
Diesel.....	2	2	...	...	...	...	...	2	...
Gasoline and other.....	1	1	...	...	...	...	...	...	1
By rated horsepower:									
Less than 10.....	56	56	...	110	105	5	8	19	29
10-25 inclusive.....	93	93	...	18	18	...	...	6	87
26-100 inclusive.....	1	1	...	...	...	...	...	1	...
More than 100.....	1	...	1	...	...	...	...	...	...
Other types of equipment, total.....	4	4	...	2	132	...	1	...	3
By kind of power used:									
Compressed air.....	3	3	...	1	1	...	...	...	3
Electric and Diesel-electric.....	1	1	...	...	...	...	1	...	...
Diesel, gasoline, and other.....	...	...	...	1	1	...	...	...	...

¹Represents producing operations only.²Lode only. No establishments classified in the placer gold industry were reported.³The total includes, but the detail by kind of power excludes, those hydraulic giants for which the kind of power was not reported.⁴Includes one dredge of a type not specified.⁵A number of companies reported hydraulicking as their principal method of mining, but the 1939 minerals census report form did not provide for a count of hydraulic giants in use at placer gold operations.⁶Not provided for on the 1939 minerals census report form.⁷For the lode gold industry represents 2 unspecified units, 1 mucking machine, and 1 carryall. For the placer gold industry represents unspecified equipment. In addition, 3 bulldozers were reported for the lode gold industry and 20 for the placer gold industry.⁸In addition, 2 Diesel-powered bulldozers were reported for the lode gold industry and for the placer gold industry, 14 Diesel-powered bulldozers, 2 powered otherwise, and 1 Diesel-powered bulldozer with tractor-drawn scraper.⁹In addition, for the lode gold industry, there were reported 4 Diesel-powered and 1 otherwise powered bulldozers and for the placer gold industry, 13 Diesel-powered, 1 electric-or Diesel-electric-powered, and 1 otherwise powered bulldozers and 2 Diesel-powered bulldozers with tractor-drawn scrapers.¹⁰In addition, for the lode gold industry, there were reported 2 Diesel-powered bulldozers, and for the placer gold industry, 105 bulldozers, of which 98 were Diesel-powered, and 36 bulldozers with tractor-drawn scrapers, of which 33 were Diesel-powered.¹¹No underground equipment was reported either for the lode gold or placer gold industries in Alaska.¹²Two pieces of equipment were reported located in the Pacific Division and one in the Mountain.¹³Hoists.

Table 12.—MATERIALS, SUPPLIES, FUELS, AND ELECTRIC ENERGY USED IN THE LODE AND PLACER GOLD INDUSTRIES
IN THE UNITED STATES AND ALASKA, BY GEOGRAPHIC DIVISIONS: 1954

(For explanation of line captions, see INTRODUCTION)

Item	Unit of measure for quantity	United States and Alaska (Placer)		United States						West North Central ¹		South Atlantic ¹	
				Total		Lode		Placer					
		Quan- tity	Cost (\$1,000)	Quan- tity	Cost (\$1,000)	Quan- tity	Cost (\$1,000)	Quan- tity	Cost (\$1,000)	Quan- tity	Cost (\$1,000)	Quan- tity	Cost (\$1,000)
Crude ore and old tailings milled.....	1,000 short tons.	xxx	xxx	xxx	xxx	2,197	xxx	xxx	xxx	1,601	xxx	(²)	xxx
Gross metal content:													
Gold.....	1,000 fine ounces	xxx	xxx	xxx	xxx	768.5	xxx	xxx	xxx	561.6	xxx	0.3	xxx
Silver.....	....do.....	xxx	xxx	xxx	xxx	523	xxx	xxx	xxx	178	xxx	...	xxx
Copper.....	1,000 pounds.....	xxx	xxx	xxx	xxx	14	xxx	xxx	xxx	...	xxx	...	xxx
Lead.....	....do.....	xxx	xxx	xxx	xxx	103	xxx	xxx	xxx	...	xxx	...	xxx
Zinc.....	....do.....	xxx	xxx	xxx	xxx	73	xxx	xxx	xxx	...	xxx	...	xxx
Mined and milled at same establishment.....	1,000 short tons.	xxx	xxx	xxx	xxx	2,055	xxx	xxx	xxx	1,601	xxx	(²)	xxx
Received from other estab- lishments of same company, purchased, or received for milling on a custom basis	....do.....	xxx	xxx	142	1,274	142	1,274	xxx	xxx	...	...	...	...
Supplies used, total.....		xxx	(D)	xxx	6,571	xxx	5,017	xxx	1,554	xxx	3,588	xxx	3
Explosives.....	1,000 pounds.....	52	15	3,311	599	3,286	594	25	5	1,613	299	...	...
Steel mill shapes and forms	1,000 short tons.	2	(D)	4	767	3	546	1	221	2	341	...	...
All other supplies		xxx	2,520	xxx	5,205	xxx	3,877	xxx	1,328	xxx	2,948	xxx	3
Fuels used, total.....	Million kwh equivalent.	(D)	(D)	667	817	576	569	91	248	507	355	...	...
Coal ³	1,000 short tons.	(D)	(D)	62	269	62	269	...	...	61	257	...	...
Fuel oil ⁴	1,000 barrels....	91	615	70	325	24	126	46	199	3	19	...	...
Natural gas.....	Million cu. ft....	...	...	68	35	68	35	...	...	67	35	...	...
Other fuels.....		xxx	185	xxx	188	xxx	139	xxx	49	xxx	44	xxx	...
Electric energy purchased.....	Million kwh.....	79	661	142	1,381	63	720	79	661	14	137	...	...
Electric energy generated and used.....	....do.....	46	xxx	72	xxx	62	xxx	10	xxx	57	xxx	...	xxx
Mountain						Pacific						Alaska (Placer)	
Total		Lode		Placer		Total		Lode		Placer			
Quan- tity	Cost (\$1,000)	Quan- tity	Cost (\$1,000)	Quan- tity	Cost (\$1,000)	Quan- tity	Cost (\$1,000)	Quan- tity	Cost (\$1,000)	Quan- tity	Cost (\$1,000)	Quan- tity	Cost (\$1,000)
Crude ore and old tailings milled.....	xxx	xxx	345	xxx	xxx	xxx	xxx	251	xxx	xxx	xxx	xxx	xxx
Gross metal content:													
Gold.....	xxx	xxx	81.3	xxx	xxx	xxx	xxx	125.3	xxx	xxx	xxx	xxx	xxx
Silver.....	xxx	xxx	41	xxx	xxx	xxx	xxx	304	xxx	xxx	xxx	xxx	xxx
Copper.....	xxx	xxx	2	xxx	xxx	xxx	xxx	12	xxx	xxx	xxx	xxx	xxx
Lead.....	xxx	xxx	12	xxx	xxx	xxx	xxx	91	xxx	xxx	xxx	xxx	xxx
Zinc.....	xxx	xxx	8	xxx	xxx	xxx	xxx	65	xxx	xxx	xxx	xxx	xxx
Mined and milled at same establishment.....	xxx	xxx	345	xxx	xxx	xxx	xxx	251	xxx	xxx	xxx	xxx	xxx
Received from other estab- lishments of same company, purchased, or received for milling on a custom basis.	(D)	1,966											
Supplies used, total.....	xxx	xxx	xxx	xxx	294	xxx	xxx	xxx	xxx	xxx	1,260	xxx	1,402
Explosives.....	853	147	851	147	(²)	845	153	822	148	23	5	27	10
Steel mill shapes and forms	(²)	123	(²)	53	(²)	70	303	1	152	1	151	1	200
All other supplies.....	xxx	(D)	xxx	(D)	224	xxx	(D)	xxx	(D)	xxx	1,104	xxx	1,192
Fuels used, total.....	124	336	47	132	77	204	36	126	22	82	14	44	(D)
Coal ³	1	12	1	12	...	...	...	...	...	...	...	(D)	(D)
Fuel oil ⁴	57	252	15	68	42	184	10	54	6	39	4	15	416
Natural gas.....	1	(²)	1	(²)	...	...	...	...	...	...	...	...	...
Other fuels.....	xxx	72	xxx	52	xxx	20	xxx	72	xxx	43	xxx	29	136
Electric energy purchased.....	13	226	13	226	...	...	115	1,018	36	357	79	661	...
Electric energy generated and used.....	14	xxx	4	xxx	10	xxx	1	xxx	1	xxx	...	xxx	36

xxx Not applicable. D Withheld to avoid approximately disclosing figures for individual companies. ¹Lode gold industry only. No establishments classified in the placer gold industry were reported. ²Less than 500. ³Principally bituminous coal and lignite, but includes Pennsylvania anthracite amounting to less than 2 percent of the quantity and value totals shown for the United States. ⁴Principally distillate oils, but includes residual oils amounting to less than 3 percent of the quantity and value totals shown for the United States.

Table 13.—WATER USE IN THE LODE AND PLACER GOLD INDUSTRIES IN THE UNITED

(For explanation of column

	Industry, geographic division, State, and type of operation	Average number of production and development workers	Value added in mining (\$1,000)	Water intake (except mine water)		
				Million gallons	Million gallons per production worker ¹	Gallons per dollar value added
1	United States and Alaska, total.....	3,822	32,309	28,527	7.46	883
2	Lode.....	2,670	22,003	3,812	1.43	173
3	Placer.....	1,152	10,306	24,715	21.45	2,398
4	United States, total.....	3,135	25,498	7,664	2.44	301
5	Lode.....	2,634	21,884	3,784	1.44	173
6	Placer.....	501	3,614	3,880	7.74	1,074
GEOGRAPHIC DIVISION AND STATE						
7	West North Central (South Dakota) ⁴	1,549	15,439	2,300	1.48	149
8	South Atlantic (North Carolina and Georgia) ⁴.....	...	7	...	...	...
9	Mountain, total.....	542	3,244	1,072	1.98	330
10	Lode.....	458	2,763	283	0.62	102
11	Placer.....	84	481	789	(⁵)	1,640
12	Idaho, total.....	61	370	14	(⁵)	38
13	Lode.....	39	195	12	0.3	62
14	Placer.....	22	175	2	(⁵)	11
15	Colorado.....	272	1,823	243	0.89	134
16	Nevada, total.....	110	787	801	7.28	1,018
17	Lode.....	66	546	125	(⁵)	229
18	Placer.....	44	241	676	15.36	2,805
19	Other States (Montana, Wyoming, New Mexico, Arizona, and Utah)....	99	264	14	(⁵)	53
20	Pacific, total.....	1,044	6,808	4,292	4.11	630
21	Lode.....	627	3,675	1,201	1.92	327
22	Placer.....	417	3,133	3,091	7.41	987
23	California, total.....	911	5,461	4,258	4.67	780
24	Lode.....	515	2,418	1,169	2.27	483
25	Placer.....	396	3,043	3,089	7.80	1,015
26	Other States (Washington and Oregon), total.....	133	1,347	34	0.26	25
27	Lode.....	112	1,257	32	0.29	25
28	Placer.....	21	90	2	(⁵)	22
29	Alaska, total.....	687	6,811	20,863	30.37	3,063
30	Lode.....	36	119	28	(⁵)	235
31	Placer.....	651	6,692	20,835	32.00	3,113
TYPE OF OPERATION						
LODE GOLD INDUSTRY						
UNITED STATES						
32	Producing operations, total.....	2,470	21,699	3,779	1.53	174
33	Mines without mill or with nonproducing mill.....	235	1,996	14	(⁵)	7
34	Mines with producing mill, total.....	2,177	19,299	3,626	1.67	188
By milling method:						
35	Flotation.....	116	1,172	49	0.42	42
36	Amalgamation.....	1,831	16,701	3,393	1.85	203
37	Cyanidation.....	206	1,307	178	0.86	136
38	Other methods and method not specified.....	24	119	6	0.25	50
39	Mills without mines or with nonproducing mines, total.....	58	404	139	2.40	344
By milling method:						
40	Flotation.....	42	380	137	3.26	361
41	Cyanidation.....	16	20	2	0.13	100
42	Other methods and method not specified.....	...	4	...	...	...
43	Nonproducing operations.....	164	185	5	0.03	26
PLACER GOLD INDUSTRY						
UNITED STATES						
44	Producing operations, total.....	471	3,517	3,877	8.23	1,102
By mining method:						
45	Bucket line dredging.....	436	3,253	3,532	8.10	1,086
46	Dragline dredging.....	20	107	14	(⁵)	131
47	Other methods and method not specified.....	15	157	331	(⁵)	2,108
48	Nonproducing operations.....	30	97	3	(⁵)	31
ALASKA						
49	Producing operations, total.....	649	6,670	20,802	32.05	3,119
By mining method:						
50	Bucket line dredging.....	577	5,281	19,109	33.12	3,618
51	Dragline dredging.....	24	436	509	21.21	1,167
52	Hydrauliclicking.....	32	398	724	(⁵)	1,819
53	Other methods and method not specified.....	16	555	460	(⁵)	829
54	Nonproducing operations.....	2	22	33	(⁵)	1,500

¹For computations of water intake per production worker, including mine water used, see tables 3 and 4. ²Due to the nature of placer gold operations, particularly the preponderant use of surface water systems such as creeks, other streams, and lakes in sluicing and washing, water discharge is approximately the same as water intake and drainage of mine water is negligible. The 1954 Census report forms for the placer gold industry did not, therefore, call for information concerning water discharge or drainage. ³Less than 0.5 percent. ⁴Lode gold industry only. No establishments classified in the placer gold industry were reported. ⁵Not computed since the number of working proprietors and firm members exceeds one-third of the number of production workers.

STATES AND ALASKA, BY GEOGRAPHIC DIVISIONS AND STATES AND BY TYPE OF OPERATION: 1954

captions, see INTRODUCTION)

Water discharged (except mine water) ²	Mine water (million gallons)		Gross water use, including recirculation (million gallons)	Percent of total water intake, except mine water, by principal source					
	Used	Drained and discharged ²		Public water systems	Company surface water systems	Company ground water systems	Combined company surface and ground water systems	Not specified	
xxx	21,441	xxx	73,549	5	92	1	2	(³)	1
3,206	568	3,581	7,152	32	63	5	(³)	(³)	2
xxx	20,873	xxx	66,397	(³)	96	(³)	3	1	3
xxx	7,365	xxx	23,083	17	71	3	9	(³)	4
3,183	493	3,521	7,049	32	63	5	...	(³)	5
xxx	6,872	xxx	16,034	2	80	1	17	...	6
1,739	411	308	5,439	...	98	2	...	...	7
...	...	...	...	...	...	...	...	...	8
xxx	993	xxx	2,108	22	2	14	62	...	9
268	79	1,102	367	50	6	44	...	...	10
xxx	914	xxx	1,741	12	1	3	84	...	11
xxx	856	xxx	870	...	100	...	...	...	12
12	...	3	12	...	100	...	...	...	13
xxx	856	xxx	858	...	100	...	...	...	14
141	57	1,086	305	99	(³)	1	...	...	15
xxx	55	xxx	874	...	1	16	83	...	16
112	43	1	168	...	2	98	...	...	17
xxx	12	xxx	706	...	(³)	2	98	...	18
3	25	12	59	...	21	79	...	...	19
xxx	5,961	xxx	15,536	25	74	1	...	(³)	20
1,176	3	2,111	1,243	90	9	1	...	(³)	21
xxx	5,958	xxx	14,293	...	100	(³)	...	...	22
xxx	5,352	xxx	14,858	26	74	(³)	...	...	23
1,150	3	2,104	1,176	92	7	1	...	...	24
xxx	5,349	xxx	13,682	...	100	(³)	...	...	25
xxx	609	xxx	678	...	65	26	...	9	26
26	...	7	67	...	63	28	...	9	27
xxx	609	xxx	611	...	100	...	...	...	28
xxx	14,076	xxx	50,466	...	99	...	(²)	1	29
23	75	60	103	...	93	...	7	...	30
xxx	14,001	xxx	50,363	...	99	...	...	1	31
3,178	493	3,363	7,044	32	63	5	...	(³)	32
12	...	1,089	19	22	14	64	...	...	33
3,031	459	2,240	6,852	30	65	5	...	(³)	34
43	1	6	85	8	86	...	...	6	35
2,814	453	2,232	6,552	32	68	(³)	...	...	36
168	3	2	207	...	3	97	...	...	37
6	2	...	8	...	83	17	...	...	38
135	34	34	173	99	1	...	...	...	39
135	...	...	137	100	...	...	...	...	40
...	34	34	36	...	100	...	...	...	41
...	...	...	...	...	...	...	...	...	42
5	...	158	5	...	...	100	...	...	43
xxx	6,872	xxx	16,031	2	80	1	17	...	44
xxx	6,340	xxx	15,112	...	81	...	19	...	45
xxx	469	xxx	521	...	29	71	...	...	46
xxx	63	xxx	398	30	65	5	...	...	47
xxx	...	xxx	3	...	67	33	...	...	48
xxx	14,001	xxx	50,330	...	99	...	...	1	49
xxx	12,367	xxx	46,046	...	100	...	...	...	50
xxx	174	xxx	711	...	100	...	...	...	51
xxx	798	xxx	1,953	...	100	...	...	...	52
xxx	662	xxx	1,620	...	72	...	...	28	53
xxx	...	xxx	33	...	100	...	...	...	54

Silver Ores

This report shows 1954 Census of Mineral Industries statistics for establishments classified in Industry 1044, Silver Ores. The silver ores industry represents establishments primarily engaged in mining, milling, or otherwise preparing silver ores. The production of bullion at the mine and mill site is included in this industry but no such production was reported in silver ores establishments in 1954. Establishments primarily engaged in smelting silver ores and refining of silver are classified in Industry 3339, "Primary Smelting and Refining of Nonferrous Metals, Not Elsewhere Classified."

For Census purposes, establishments primarily producing complex ores were classified in the silver ores industry if the estimated value of the recoverable silver content of minerals produced or shipped was greater than the estimated value of any other metal contained. As a basis for classifying establishments producing complex ores, estimated unit values of recoverable metals, f.o.b. mine or mill, were derived by subtracting from the 1954 average market price of such metals, in their smelted or refined form, typical smelting, refining, and transportation costs. Estimated unit values so derived were applied to the recoverable metal content of the complex ores, tailings, and concentrates reported to determine the metal of principal value for the establishment. For the unit values used in these computations and for a fuller discussion of this procedure, see the summary report, "Copper, Lead, Zinc, Gold, and Silver Ores."

The silver ores industry was similarly defined in 1939, the year covered by the preceding Census of Mineral Industries. The procedure used for 1939 to determine industry classification for establishments producing complex ores was also similar to that outlined above for the 1954 Census. Changes in establishment classification have resulted, however, from changes in the metal content of ores mined or milled at specific establishments, or from differences, for the various metals, in the increase in unit values since 1939. For example, the increase in the value of silver since 1939 has been proportionately much less than for lead, zinc, and copper. Consequently, a number of establishments classified in the silver ores industry in 1939 were classified in the lead ores, zinc ores, or copper ores industry. On the other hand, there has been no change since 1939 in the unit value of gold and, as a result, some establishments classified in the silver ores industry in 1954 would have been classified as gold mines in 1939.

The total value of shipments of the silver ores industry in 1954 amounted to \$12.1 million. The value of net shipments, that is, total shipments less milling ore shipments, also amounted to approximately \$12.1 million, since the value of milling ore shipped amounted to only \$97 thousand. Shipments of silver, lead, and zinc concentrates were valued at approximately \$11.5 million, or about 95 percent of the total. Direct smelting ores, valued at \$0.6 million, accounted for most of the balance.

During 1954, the total recoverable silver content of products of all mineral establishments was approximately 36,670 thousand fine ounces. Only approximately 32 percent was accounted for by the silver ores industry as compared to 43 percent for establishments in the lead and zinc ores industries. The copper ores industry contributed most of the remainder (22 percent of the total recoverable silver), with the lode gold industry adding almost an additional 2 percent of the total.

It should be emphasized that the general statistics shown in this report for such items as employment, payrolls, supplies, horsepower, capital expenditures, and energy and water

use do not include the activities of establishments classified in other industries which produced silver-bearing ores and concentrates as secondary products. Conversely, the general statistics for the silver ores industry include the production of secondary products and the performance of services for others, since these general statistics are reported for each establishment as a whole. These factors should be taken into account in comparing product figures shown for all mineral industries in Tables 5A and 5B with the statistics for other items shown in this report.

The report form used for the silver ores industry by the Bureau of the Census for the 1954 Census of Mineral Industries also provided information required by the Bureau of Mines for its annual statistics on silver ores. The Bureau of Mines statistics, are, in general, comparable with those presented in this report. However, some differences occur in the statistics on products, arising principally from the differences in methods and objectives of the two bureaus in compiling and presenting these statistics. The reasons for such differences, to the extent that they pertain to silver ores statistics, are summarized below:

1. The statistics shown in this report on ores mined, milled, or shipped by silver ores establishments cover all ores and may, therefore, include small quantities of copper, lead, zinc, and gold ores in addition to silver ores. On the other hand, silver ores mined at establishments classified in other industries are excluded. Figures on silver ores published by the Bureau of Mines include all domestic ores classified as silver ores, regardless of the industry classification of the establishment mining such ores. Complex ores are classified by the Bureau of Mines, in large measure, on the basis of the assay content of the ores. The Bureau of the Census on the other hand bases such classification on the value of the metals contained.

2. The Bureau of Mines excluded from its 1954 statistics shipments made in January of that year if such shipments had been included in their 1953 statistics. Likewise, any shipments actually made during 1953, but not included in the Bureau of Mines figures for that year, have been added to the 1954 statistics. This is partly explained by the use by the Bureau of Mines in some instances of receipts at smelters rather than shipments from the mine. Statistics shown in this report pertain, on the other hand, to mine or mill operations actually performed during 1954.

3. The Bureau of Mines has included in its statistics on recoverable silver, the silver recovered at smelters from old slag and smelter cleanings if this silver is not included in the statistics for earlier years. Only the silver recoverable from ores mined and milled in 1954 are included in the Census statistics.

4. Figures for establishments with value of shipments of less than \$500 are excluded from this report unless the expenses for development and maintenance work amounted to \$500 or more. The Bureau of Mines includes production of all domestic mines, regardless of the size of the operation.

5. Differences in the statistics by State also arise from the fact that concentrates produced in one State from ores mined in another are assigned by the Bureau of Mines to the State in which the mine is located, whereas the Bureau of the Census includes such concentrates in the statistics for the State in which the mill is located.

Table 1.—COMPARATIVE STATISTICS FOR THE SILVER ORES INDUSTRY IN THE UNITED STATES: 1954, 1939, AND 1929

(For explanation of line captions and for statement on the minimum size of establishment included for each year, see INTRODUCTION)

Item	1954	1939	1929 ¹
Number of operating companies.....	98	153	(NA)
Number of establishments.....	101	(NA)	67
Number of mines.....	101	166	74
Number of mills.....	24	32	19
Crude ore mined.....1,000 short tons..	514	1,826	(NA)
From underground operations.....do...	444	(NA)	(NA)
From open-pit operations.....do...	70	(NA)	(NA)
Direct-smelting ores shipped ².....do...	100	735	(NA)
Crude ore and old tailings milled.....do...	3410	1,102	(NA)
Silver, gold, copper, lead, and zinc concentrates produced.....do...	21	51	(NA)
Recoverable silver content of products ⁴.....1,000 fine ounces..	11,881	28,989	(NA)
Value of shipments, total ⁵.....\$1,000..	12,148	21,292	(NA)
Milling ores.....do...	97	1,576	(NA)
Net shipments, total ⁵.....do...	12,051	19,716	8,457
Direct-smelting ores ².....do...	584	8,415	} 8,437
Silver, gold, copper, lead, and zinc concentrates ⁵.....do...	11,454	11,209	
Other products and services.....do...	13	92	20
Value added in mining.....do...	9,856	16,340	5,891
Number of persons engaged, total.....	1,341	4,712	62,838
Production and development workers.....	1,065	4,256	2,593
All other employees.....	190	371	6220
Proprietors and firm members.....	86	85	25
Performing manual labor.....	66	72	(NA)
Man-hours worked by production and development workers, total.....1,000..	2,214	9,055	(NA)
At mines, total.....do...	2,005	78,287	(NA)
Underground.....do...	1,627	76,888	} (NA)
Open-pit.....do...	25	739	
Surface (including mine shops and yards).....do...	353	71,340	} (NA)
At mills.....do...	209	7703	
Recoverable silver content per man-hour.....fine ounces..	5.37	3.20	(NA)
Principal expenses designated below, total.....\$1,000..	8,950	10,295	87,500
Wages of production and development workers.....do...	5,003	6,017	4,327
Salaries of all other employees.....do...	1,035	902	6607
Crude ore and old tailings received for milling.....do...	5	(NA)	(NA)
Supplies.....do...	2,167	2,504	1,821
Fuel.....do...	105	178	122
Purchased electric energy.....do...	271	574	485
Contract work.....do...	364	120	138
Purchased machinery installed.....do...	446	(NA)	424
Capital expenditures, total.....do...	1,066	(NA)	(NA)
Development and exploration of mineral property.....do...	587	(NA)	1,902
Mill construction.....do...	145	} 164	} (NA)
Other construction.....do...	19		
New machinery and equipment.....do...	204	349	} (NA)
Used plant and equipment.....do...	111	49	
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	35,765	43,645	28,943
Per production worker.....	34	10	11
Prime movers.....	16,904	14,797	9,549
Electric motors driven by purchased energy.....	18,861	28,848	19,394
Horsepower rating of electric motors driven by energy generated at the establishment,....	932	5,817	2,664
Energy used.....million kwh equivalent..	81	206	133
Coal.....1,000 short tons..	1	5	5
Fuel oil.....1,000 barrels..	11	28	28
Electric energy purchased.....million kwh..	43	105	43
Electric energy generated and used.....do...	1	14	7

NA Not available.

¹Excludes nonproducing operations. In 1929, statistics for nonproducing operations are available only for the copper, lead, zinc, gold, and silver ores industries as a group. For that year, employment and principal expenses of nonproducing operations for this group of industries were about five percent of the comparable figures for producing operations. Data for three nonproducing silver ores operations are included in the figures shown for 1939. In addition, there were in 1939 nine nonproducing operations with an employment of 46 and principal expenses of \$92,000 classified in the copper, lead, zinc, gold, and silver ores group but not identified by individual industry.

²Figures for 1954 include old tailings shipped to smelters accounting for less than five percent of the tonnage and value shown. Figures for 1939 represent production.

³Tailings represent less than 0.1 percent of the 1954 total shown. Separate figures on old tailings milled are not available for 1939.

⁴For 1954, represents the recoverable silver content of direct-smelting ores and old tailings shipped to smelters and of concentrates produced. Only the recoverable content of concentrates produced was reported for 1954. However, the tonnage of concentrates shipped exceeded the tonnage produced by less than 0.1 percent. Figures for 1939 represent production and have been revised to include the recoverable content of concentrates produced at silver ore mills from purchased and custom milling ores, rather than the recoverable content of such ores shipped during the year from silver ore mines.

⁵The total value of shipments contains duplication since it includes the value of milling ores shipped as well as the value of concentrates produced from such ores. The net value of shipments excludes this duplication. Figures for "net value" represent production for 1939 and 1929. The value of concentrates shown for 1939 includes the value of mill bullion and precipitates (\$1,442,000) and has been revised, for approximate comparability with 1954, by inclusion of the value of milling ores shipped, the value added by milling purchased ores, and receipts for custom milling. It is recognized that, to the extent that milling ores were shipped to establishments in other industries, or were received from such establishments, this adjustment is subject to error. This adjustment, which has been made in the statistics by State in later tables, would similarly be affected by interstate shipments of milling ores.

⁶Excludes figures for employees at central offices maintained independently of mine offices. Statistics for these workers are available only for the copper, lead, zinc, gold, and silver ores industries as a group and not separately by industry. There were a total of 301 such employees paid \$1,598,000 in salaries for this group of industries.

⁷Excludes man-hours worked on inactive days, amounting to 65,000 which are not available by department. Detail for man-hours at mines for nonproducing operations, amounting to 20,000, is also not available by mine departments, but is included in the "At mines" total.

⁸Excludes the cost of crude ore and old tailings received from other establishments.

Table 2.—COMPARATIVE STATISTICS FOR THE SILVER ORES INDUSTRY, BY STATE: 1954, 1939, AND 1929

(For explanation of column captions, see INTRODUCTION. Excludes nonproducing operations for 1939 and 1929 except for 1939 United States total¹)

State and year	Number of mines	Value of shipments (\$1,000)	Number of employees		Designated principal expenses (\$1000)						Aggregate horsepower rating of power equipment
			Production and development workers	All other employees	Wages of production and development workers	Salaries of all other employees	Supplies and crude ore and old tailings received for milling ²	Fuel	Purchased electric energy	Contract work	
United States, total											
1954.....	101	12,148	1,065	190	5,003	1,035	2,172	105	271	364	35,765
1939.....	166	21,292	4,256	371	6,017	902	2,504	178	574	120	43,645
1929.....	74	³ 8,457	2,593	⁴ 220	4,327	⁴ 607	1,821	122	485	138	28,943
Montana											
1954.....	14	466	30	6	119	15	⁵ 80	10	8	(⁶)	2,450
1939.....	28	1,802	406	32	574	85	233	20	62	32	4,905
1929.....	14	³ 1,031	292	⁴ 34	510	⁴ 69	171	9	49	25	3,611
Idaho											
1954.....	19	11,089	897	163	4,416	961	1,955	58	239	103	21,477
1939.....	8	6,230	872	64	1,516	194	711	16	144	1	9,221
Utah											
1954.....	11	341	50	4	158	9	62	10	16	113	4,900
1939.....	22	3,504	937	94	1,219	234	423	9	156	1	7,866
1929.....	11	³ 3,306	939	⁴ 46	1,629	⁴ 128	556	12	87	5	2,511
Nevada											
1954.....	19	119	47	7	184	32	51	⁶ 20	(⁶)	37	3,665
1939.....	47	2,023	515	55	787	132	283	30	86	16	7,544
1929.....	14	³ 1,863	610	⁴ 67	1,125	⁴ 240	555	59	279	95	14,826
Other States ⁷											
1954.....	38	133	41	10	126	18	⁵ 135	⁶ 15	(⁶)	(⁵)	3,273
1939.....	58	7,733	1,514	123	1,908	250	852	103	125	11	13,724
1929.....	35	³ 2,257	752	⁴ 73	1,063	⁴ 170	539	42	70	13	7,995

¹See table 1, footnote 1.²For 1939 and 1929, excludes the cost of crude ore and old tailings received for milling.³Represents value of net shipments. See table 1, footnote 5.⁴Excludes employees at central offices. See table 1, footnote 6.⁵Cost of contract work is combined with cost of supplies.⁶Cost of purchased electric energy is combined with cost of fuel.⁷For all years, includes Texas, Colorado, New Mexico, Arizona, Washington, and California. In addition, includes Wyoming for 1954 and Idaho for 1929.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 3.—DETAILED STATISTICS FOR THE SILVER ORES INDUSTRY, BY STATE: 1954

(For explanation of line captions, see INTRODUCTION)

Item	United States	Montana	Idaho	Utah	Nevada	Other States ¹
Number of operating companies.....	98	14	19	9	19	38
Number of establishments.....	101	14	19	11	19	38
Number of mines.....	101	14	19	11	19	38
Number of mills.....	24	5	7	...	5	7
Crude ore mined.....1,000 short tons..	514	33	380	80	13	8
Direct-smelting ores shipped ².....do....	100	3	8	76	5	8
Crude ore and old tailings milled ³.....do....	410	30	372	...	(D)	(D)
Silver, lead, and zinc concentrates shipped.....do....	21	3	18	...	(4)	(4)
Recoverable silver content of products ⁵.....1,000 fine ounces..	11,881	356	10,937	407	93	88
Value of shipments, total.....\$1,000..	12,148	466	11,089	341	119	133
Milling ores.....do....	97	(D)	...	(D)	...	13
Net shipments, total.....do....	12,051	(D)	11,089	(D)	119	120
Direct-smelting ores ⁴.....do....	584	(D)	78	(D)	...	...
Silver, lead, and zinc concentrates.....do....	11,454	412	10,999	...	118	120
Other products and services.....do....	13	...	12	...	1	...
Value added in mining.....do....	9,856	384	8,816	260	205	191
Number of persons engaged, total.....	1,341	48	1,070	55	69	99
Production and development workers.....	1,065	30	897	50	47	41
All other employees.....	190	6	163	4	7	10
Proprietors and firm members.....	86	12	10	1	15	48
Performing manual labor.....	66	12	7	...	13	34
Man-hours worked by production and development workers, total.....1,000..	2,214	70	1,864	95	97	88
At mines, total.....do....	2,005	51	1,721	95	75	63
Underground.....do....	1,627	43	1,397	63	65	59
Open-pit.....do....	25	1	6	16	2	...
Surface (including mine shops and yards).....do....	353	7	318	16	8	4
At mills.....do....	209	19	143	...	22	25
Man-hours spent on development and exploration work (included above).....do....	246	16	94	33	60	43
Recoverable silver content per man-hour.....fine ounces..	5.37	(6)	5.87	4.28	0.96	(6)
Net value of shipments per man-hour.....\$1,000..	5.44	(6)	5.95	(D)	1.23	(6)
Principal expenses designated below, total.....do....	8,950	232	7,732	368	324	294
Wages of production and development workers.....do....	5,003	119	4,416	158	184	126
Salaries of all other employees.....do....	1,035	15	961	9	32	18
Crude ore and old tailings received for milling.....do....	5	...	5	...	...	...
Supplies.....do....	2,167	780	1,950	62	51	7135
Fuel.....do....	105	10	58	10	...	...
Purchased electric energy.....do....	271	8	239	16	20	15
Contract work.....do....	364	(7)	103	113	37	(7)
Purchased machinery installed.....do....	446	5	350	11	21	59
Capital expenditures, total.....do....	1,066	21	432	131	215	267
Development and exploration of mineral property.....do....	587	18	111	120	173	165
Mill construction.....do....	145	...	65	...	35	45
Other construction.....do....	19	...	19	...	...	...
New machinery and equipment.....do....	204	3	141	4	3	53
Used plant and equipment.....do....	111	...	96	7	4	4
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	35,765	2,450	21,477	4,900	3,665	3,273
Per production worker.....	34	(6)	24	98	78	(6)
Prime movers.....	16,904	1,971	7,570	1,643	3,155	2,565
Electric motors driven by purchased energy.....	18,861	479	13,907	3,257	510	708
Horsepower rating of electric motors driven by energy generated at the establishment.....	932	...	542	45	300	45
Energy used.....million kwh equivalent..	81	4	65	4	6	2
Coal.....1,000 short tons..	1	...	1	...	...	...
Fuel oils.....1,000 barrels..	11	1	7	1	2	...
Electric energy purchased.....million kwh..	43	1	41	1	...	...
Electric energy generated and used.....do....	1	...	1	...	...	...
Water intake, including mine water used.....million gallons..	2,291	129	2,152	3	6	1
Per production worker.....do....	2.15	(6)	2.40	0.06	0.13	(6)

(D) Withheld to avoid approximately disclosing figures for individual companies. ¹Texas, 1 establishment; Wyoming, 1 establishment; Colorado, 12 establishments; New Mexico, 4 establishments; Arizona, 15 establishments; Washington, 3 establishments; and California, 2 establishments. ²See table 1, footnote 2. ³See table 1, footnote 3. ⁴Less than 500 tons. ⁵See table 1, footnote 4. ⁶Not computed since the number of proprietors and firm members performing manual labor exceeds one-third of the number of production and development workers. ⁷Cost of contract work is included in the cost of supplies.

SILVER ORES

10G-5

Table 4.--DETAILED STATISTICS FOR THE SILVER ORES INDUSTRY IN THE UNITED STATES, BY TYPE OF OPERATION: 1954

(For explanation of column captions, see INTRODUCTION)

Item	All types of estab- lishments	Producing establishments ¹			
		Total		Open-pit and combined open-pit and underground mines ²	Underground mines, by principal mining method
		Mines only	Mines with mills ¹		
					Total
Number of operating companies.....	98	46	15	8	54
Number of establishments.....	101	49	15	8	56
Number of mines.....	101	49	15	8	56
Number of mills.....	24	...	15	2	13
Crude ore mined.....1,000 short tons..	514	98	416	71	443
Gross silver content.....1,000 fine ounces..	12,353	723	11,630	324	12,029
Crude ore and old tailings milled.....1,000 short tons..	410	...	410	xxx	xxx
Gross silver content.....1,000 fine ounces..	11,651	...	11,651	xxx	xxx
Silver, lead, and zinc concentrates produced...1,000 short tons..	21	...	21	xxx	xxx
Recoverable silver content.....1,000 fine ounces..	11,204	...	11,204	xxx	xxx
Value of shipments.....\$1,000..	12,148	654	11,494	196	11,952
Value added in mining.....do....	9,856	607	9,117	190	9,534
Number of persons engaged, total.....	41,341	146	1,012	33	1,125
Production and development workers.....	1,065	86	919	25	980
All other employees.....	4190	5	84	2	87
Proprietors and firm members.....	86	55	9	6	58
Performing manual labor.....	66	45	6	4	47
Man-hours worked by production and development workers, total.....1,000..	2,214	186	1,914	55	2,045
At mines, total.....do....	2,005	186	1,731	34	1,883
Underground and open-pit .....do....	1,652	166	1,416	31	1,551
Surface (including mine shops and yards).....do....	353	20	315	3	332
At mills.....do....	209	...	183	21	162
Man-hours spent on development and exploration work (included above).....do....	246	89	85	1	173
Crude ore mined per man-hour at mine.....short tons..	0.26	(⁵)	0.24	2.09	0.24
Gross silver content per man-hour at mine.....fine ounces..	6.16	(⁵)	6.72	9.53	6.39
Ratio of recoverable silver content of concentrates produced to gross silver content of ore and old tailings milled.....	0.96	...	0.96	xxx	xxx
Recoverable silver content of concentrates produced per man-hour at mill.....fine ounces..	54	...	61	xxx	xxx
Principal expenses designated below, total.....\$1,000..	48,950	712	7,386	157	7,941
Wages of production and development workers.....do....	5,003	313	4,507	103	4,717
Salaries of all other employees.....do....	41,035	16	521	7	530
Supplies and crude ore and old tailings received for milling.....do....	2,172	192	1,928	27	2,093
Fuel.....do....	105	34	63	19	78
Purchased electric energy.....do....	271	19	246	...	265
Contract work.....do....	364	138	121	1	258
Purchased machinery installed.....do....	446	69	313	...	382
Capital expenditures, total.....do....	1,066	405	294	41	658
Development and exploration of mineral property.....do....	587	303	42	21	324
Mill construction.....do....	145	50	35	20	65
Other construction.....do....	19	...	19	...	19
New machinery and equipment.....do....	204	32	109	...	141
Used plant and equipment.....do....	111	20	89	...	109
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	35,765	9,577	21,761	2,850	28,488
Per production worker.....do....	34	(⁵)	24	114	29
Prime movers.....do....	16,904	6,166	7,370	2,850	10,686
Electric motors driven by purchased energy.....do....	18,861	3,411	14,391	...	17,802
Horsepower rating of electric motors driven by energy generated at the establishment.....do....	932	45	842	300	587
Energy used.....million kwh equivalent..	81	10	68	5	73
Coal.....1,000 short tons..	1	...	1	...	1
Fuel oils.....1,000 barrels..	11	1	9	1	9
Electric energy purchased.....million kwh..	43	1	42	...	43
Electric energy generated and used.....do....	1	...	1	...	1
Water intake, including mine water used.....million gallons..	2,291	3	2,286	5	2,284
Per production worker.....do....	2.15	(⁵)	2.49	0.20	2.33

See footnotes at end of table.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 4.—DETAILED STATISTICS FOR THE SILVER ORES INDUSTRY IN THE UNITED STATES, BY TYPE OF OPERATION: 1954—Continued

(For explanation of column captions, see INTRODUCTION)

Item	Producing establishments ¹ —Continued				Nonpro- ducing estab- lish- ments	Mills, by principal milling method ¹	
	Underground mines, by principal mining method—Continued					Flotation	Straight gravity and other ²
	Open stoping	Shrinkage stoping	Cut-and- fill stoping	Square- setting and other ²			
Number of operating companies.....	14	5	9	27	37	10	5
Number of establishments.....	15	5	9	27	37	10	5
Number of mines.....	15	5	9	27	37	10	5
Number of mills.....	3	1	4	5	9	10	5
Crude ore mined.....1,000 short tons..	11	15	368	49	...	xxx	xxx
Gross silver content.....1,000 fine ounces..	108	166	11,239	516	...	xxx	xxx
Crude ore and old tailings milled.....1,000 short tons..	xxx	xxx	xxx	xxx	...	403	7
Gross silver content.....1,000 fine ounces..	xxx	xxx	xxx	xxx	...	11,585	66
Silver, lead, and zinc concentrates produced...1,000 short tons..	xxx	xxx	xxx	xxx	...	21	(³)
Recoverable silver content.....1,000 fine ounces..	xxx	xxx	xxx	xxx	...	11,140	64
Value of shipments.....\$1,000..	110	223	11,013	606	...	11,403	91
Value added in mining.....do....	152	201	8,715	466	132	9,040	77
Number of persons engaged, total.....	35	40	958	92	105	999	13
Production and development workers.....	20	35	872	53	60	910	9
All other employees.....	...	3	80	4	23	84	...
Proprietors and firm members.....	15	2	6	35	22	5	4
Performing manual labor.....	12	1	6	28	15	2	4
Man-hours worked by production and development workers, total.....1,000..	43	70	1,806	126	114	1,893	21
At mines, total.....do....	43	70	1,672	98	88	1,719	12
Underground and open-pit.....do....	40	66	1,368	77	70	1,405	11
Surface (including mine shops and yards).....do....	3	4	304	21	18	314	1
At mills.....do....	...	...	134	28	26	174	9
Man-hours spent on development and exploration work (included above).....do....	32	21	82	38	72	85	...
Crude ore mined per man-hour at mine.....short tons..	(⁵)	0.21	0.22	(⁵)	...	xxx	xxx
Gross silver content per man-hour at mine.....fine ounces..	(⁵)	2.37	6.72	(⁵)	...	xxx	xxx
Ratio of recoverable silver content of concentrates produced to gross silver content of ore and old tailings milled.....	xxx	xxx	xxx	xxx	...	0.96	0.97
Recoverable silver content of concentrates produced per man-hour at mill.....fine ounces..	xxx	xxx	xxx	xxx	...	64	(⁵)
Principal expenses designated below, total.....\$1,000..	214	230	7,032	465	413	7,338	48
Wages of production and development workers.....do....	76	118	4,292	231	183	4,474	33
Salaries of all other employees.....do....	...	11	510	9	59	521	...
Supplies and crude ore and old tailings received for milling.....do....	68	81	1,868	76	52	2,222	15
Fuel.....do....	7	10	40	21	8		
Purchased electric energy.....do....	4	10	238	13	6		
Contract work.....do....	59	...	84	115	105		
Purchased machinery installed.....do....	35	30	278	39	64	313	...
Capital expenditures, total.....do....	215	109	210	124	367	293	1
Development and exploration of mineral property.....do....	131	79	13	101	242	41	1
Mill construction.....do....	50	...	15	...	60	35	...
Other construction.....do....	...	...	17	2	...	19	...
New machinery and equipment.....do....	26	20	88	7	63	109	...
Used plant and equipment.....do....	8	10	77	14	2	89	...
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	1,650	1,445	18,620	6,773	4,427	21,046	715
Per production worker.....	(⁵)	41	21	(⁵)	74	23	(⁵)
Prime movers.....	1,570	1,133	4,649	3,334	3,368	6,720	650
Electric motors driven by purchased energy.....	80	312	13,971	3,439	1,059	14,326	65
Horsepower rating of electric motors driven by energy generated at the establishment.....do....	45	60	...	482	45	842	...
Energy used.....million kwh equivalent..	2	5	59	7	3	67	1
Coal.....1,000 short tons..	...	...	1	...	...	1	...
Fuel oils.....1,000 barrels..	...	1	6	2	1	9	...
Electric energy purchased.....million kwh..	...	1	40	2	...	42	...
Electric energy generated and used.....do....	...	...	...	1	...	1	...
Water intake, including mine water used.....million gallons..	4	...	2,119	161	2	2,273	13
Per production worker.....do....	(⁵)	...	2.43	(⁵)	0.03	2.50	(⁵)

xxx Not applicable. ¹Producing establishments represent mines only or mines operated in conjunction with mills. There were no silver ore mills operated separately from mines. The figures shown for mines with mills, therefore, represent the total of the figures shown for mills distributed by milling method. ²Includes establishments not reporting their principal method. ³Less than 500 tons. ⁴Includes 78 employees at central offices paid \$439,000 in salaries that were not classified by type of operations. ⁵Not computed. See table 3, footnote 6.

SILVER ORES

10G-7

Table 5A.—PRODUCTS OF THE SILVER ORES INDUSTRY, BY STATE, 1954 AND 1939, AND SILVER CONCENTRATES PRODUCED IN ALL MINERAL INDUSTRIES, 1954
(For explanation of column captions, see INTRODUCTION)

Product and State	1954				
	Production (1,000 short tons)	Shipments and interplant transfers		Quantity of metals contained	
		Quantity (1,000 short tons)	Value f.o.b. mine or mill (\$1,000)	Basis	Silver (1,000 fine ounces)
<u>UNITED STATES</u>					
SILVER ORES INDUSTRY					
All products and services, total.....	xxx	xxx	12,148	Recoverable.....	11,881
Primary Products					
Crude ore mined, total.....	514	xxx	xxx	Gross.....	12,353
From underground operations.....	444	xxx	xxx	....do.....	12,040
From open-pit operations.....	70	xxx	xxx	....do.....	313
Milling ores ¹	xxx	5	97	....do.....	79
Direct-smelting ores.....	xxx	98	561	Recoverable.....	661
Gross metal content.....	xxx	xxx	xxx	Gross.....	662
Old tailings shipped to smelters.....	xxx	2	23	Recoverable.....	16
Silver concentrates.....	21	21	11,454	Recoverable ³	11,204
Secondary Products and Services					
Lead and zinc concentrates.....					
Other products and services ⁵	xxx	xxx	13	.....	xxx
ALL MINERAL INDUSTRIES					
Silver concentrates.....	21	21	11,372	Recoverable ³	11,174
<u>IDAHO</u>					
SILVER ORES INDUSTRY					
All products and services, total.....	xxx	xxx	11,089	Recoverable.....	10,937
Primary Products					
Crude ore mined.....	380	xxx	xxx	Gross.....	11,313
Milling ores ¹	xxx	...	...	.....	...
Direct-smelting ores.....	xxx	8	78	Recoverable.....	74
Gross metal content.....	xxx	xxx	xxx	Gross.....	74
Silver concentrates.....	18	18	10,999	Recoverable ³	10,863
Secondary Products and Services					
Lead concentrates.....					
Other products and services.....	xxx	xxx	12	.....	xxx
ALL MINERAL INDUSTRIES					
Silver concentrates.....	20	20	11,103	Recoverable ³	10,963
<u>OTHER STATES⁶</u>					
SILVER ORES INDUSTRY					
All products and services, total.....	xxx	xxx	1,059	Recoverable.....	944
Primary Products					
Crude ore mined.....	134	xxx	xxx	Gross.....	1,040
Milling ores ¹	xxx	5	97	....do.....	79
Direct-smelting ores.....	xxx	90	483	Recoverable.....	587
Gross metal content.....	xxx	xxx	xxx	Gross.....	588
Old tailings shipped to smelters.....	xxx	2	23	Recoverable.....	16
Silver concentrates.....	3	3	455	Recoverable ³	341
Secondary Products and Services					
Zinc concentrates.....					
Other products and services.....	xxx	xxx	1	.....	xxx
ALL MINERAL INDUSTRIES					
Silver concentrates.....	1	1	269	Recoverable ³	211

See footnotes at end of table.

Table 5A.—PRODUCTS OF THE SILVER ORES INDUSTRY, BY STATE, 1954 AND 1939, AND SILVER CONCENTRATES PRODUCED IN ALL MINERAL INDUSTRIES, 1954—Continued
(For explanation of column captions, see INTRODUCTION)

Product and State	1954—Continued				1939 production	
	Quantity of metals contained—Continued				Quantity (1,000 short tons)	Value f.o.b. mine or mill (\$1,000)
	Gold (1,000 fine ounces)	Copper (1,000 pounds)	Lead (1,000 pounds)	Zinc (1,000 pounds)		
<u>UNITED STATES</u>						
SILVER ORES INDUSTRY						
All products and services, total.....	4.4	4,680	8,907	2,113	xxx	21,292
Primary Products						
Crude ore mined, total.....	4.8	5,338	11,664	3,656	1,826	xxx
From underground operations.....	3.5	5,142	11,201	3,583	(NA)	xxx
From open-pit operations.....	1.3	196	463	73	(NA)	xxx
Milling ores ¹	0.2	39	425	230	200	1,576
Direct-smelting ores.....	(D)	262	1,205	(D)	735	8,415
Gross metal content.....	(D)	316	1,844	(D)	xxx	xxx
Old tailings shipped to smelters.....	...	2	(D)	(D)	(²)	(²)
Silver concentrates.....			7,615	95		
Secondary Products and Services	(D)	4,416			51	411,209
Lead and zinc concentrates.....			(D)	(D)		
Other products and services ²	xxx	xxx	xxx	xxx	xxx	92
ALL MINERAL INDUSTRIES						
Silver concentrates.....	1.2	4,565	7,706	95	(NA)	(NA)
<u>IDAHO</u>						
SILVER ORES INDUSTRY						
All products and services, total.....	0.7	4,484	6,979	18	xxx	6,230
Primary Products						
Crude ore mined.....	0.7	5,052	7,845	475	412	xxx
Milling ores ¹.....	...	...	...	...	18	126
Direct-smelting ores.....	0.2	85	(D)	...	4	124
Gross metal content.....	0.2	134	(D)	...	xxx	xxx
Silver concentrates.....			6,961	18		
Secondary Products and Services	0.5	4,399			18	45,980
Lead concentrates.....			(D)	...		
Other products and services.....	xxx	xxx	xxx	xxx	xxx	...
ALL MINERAL INDUSTRIES						
Silver concentrates.....	0.5	4,548	7,204	18	(NA)	(NA)
<u>OTHER STATES⁶</u>						
SILVER ORES INDUSTRY						
All products and services, total.....	3.7	196	1,928	2,095	xxx	15,062
Primary Products						
Crude ore mined.....	4.1	286	3,819	3,181	1,414	xxx
Milling ores ¹	0.2	39	425	230	182	1,450
Direct-smelting ores.....	(D)	177	(D)	(D)	731	8,291
Gross metal content.....	(D)	182	(D)	(D)	xxx	xxx
Old tailings shipped to smelters.....	...	2	(D)	(D)	(²)	(²)
Silver concentrates.....			654	77		
Secondary Products and Services	(D)	17			33	45,229
Zinc concentrates.....			...	(D)		
Other products and services.....	xxx	xxx	xxx	xxx	xxx	92
ALL MINERAL INDUSTRIES						
Silver concentrates.....	0.7	17	502	77	(NA)	(NA)

xxx Not applicable. D Withheld to avoid approximately disclosing figures for individual companies. NA Not available. ¹Statistics for both 1954 and 1939 represent shipments. Figures shown may include old tailings; separate figures on any shipments of old tailings to other mills were not obtained in either year. ²Information on shipments of old tailings to smelters was not obtained separately for 1939. ³Recoverable content of concentrates produced. See table 1, footnote 4. ⁴Revised for approximate comparability with 1954 by inclusion of the value of milling ores shipped, the value added by milling purchased ores, and receipts for custom milling. See table 1, footnote 5. The value shown for 1939 also includes the value of mill bullion and precipitates (\$1,442,000 for the United States), whereas no silver ores establishments reported this product in 1954. ⁵Primarily tungsten concentrates for 1954; secondary products were not identified by type for 1939. ⁶For both years, Montana, Colorado, New Mexico, Arizona, Utah, Nevada, and California and, in addition for 1939, Texas and Washington.

Table 5B.—RECOVERABLE SILVER CONTENT OF PRODUCTS OF ALL MINERAL INDUSTRIES, 1954 AND 1939
(Thousands of fine ounces)

Product	1954 ¹			1939 ¹		
	United States, total	Idaho	Other States	United States, total	Idaho	Other States
ALL MINERAL INDUSTRIES						
Total recoverable silver.....	36,670	15,797	20,873	62,822	16,523	46,299
From lode deposits, total.....	36,657	15,796	20,861	62,725	16,510	46,215
Direct-smelting ores and old tailings, total.....	5,287	129	5,158	² 19,561	² 1,193	² 18,368
Ores.....	5,028	128	4,900	19,561	1,193	³ 18,368
Old tailings shipped to smelters.....	259	1	258	(²)	(²)	(²)
Concentrates, total.....	31,067	15,666	15,401	38,321	15,305	23,016
Silver concentrates.....	11,174	10,963	211	(NA)	(NA)	(NA)
Gold, copper, lead, and zinc concentrates.....	19,893	4,703	15,190	(NA)	(NA)	(NA)
Mill bullion and precipitates, total.....	303	1	302	4,843	12	4,831
Recovered by amalgamation.....	94	1	93	(NA)	(NA)	(NA)
Recovered by cyanidation.....	209	...	209	(NA)	(NA)	(NA)
From placer gravels.....	13	1	12	97	13	84
SILVER ORES INDUSTRY						
Total recoverable silver.....	11,881	10,937	944	28,989	11,279	17,710
From lode deposits, total.....	11,881	10,937	944	28,989	11,279	17,710
Direct-smelting ores and old tailings, total.....	677	74	603	² 12,714	² 229	² 12,485
Ores.....	661	74	587	12,714	229	12,485
Old tailings shipped to smelters.....	16	...	16	(²)	(²)	(²)
Concentrates.....	11,204	10,863	341	14,314	11,050	3,264
Mill bullion and precipitates (all recovered by cyanidation).....	...	...	...	1,961	...	1,961

NA Not available.

¹For 1954, represents recoverable content of products shipped, except for concentrates. Figures for 1939 represent production and have been revised. See table 1, footnote 4.

²Information on shipments of old tailings to smelters was not obtained separately for 1939.

³Includes 123,000 fine ounces for copper ores establishments in Idaho, Montana, and Washington combined.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 6.—GENERAL STATISTICS FOR SILVER ORES ESTABLISHMENTS CLASSIFIED BY NUMBER OF EMPLOYEES AND BY STATE: 1954

(For explanation of column captions, see Introduction)

State and number of employees in establishment	Number of establishments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
United States, total.....	101	12,148	9,856	1,065	190	2,214	5,003	1,035	955
0.....	45	155	70	...	...	1	1	...	122
1-4.....	34	147	205	60	8	114	166	20	290
5-9.....	12	312	348	61	16	122	226	42	205
10-19.....	7	566	566	78	8	182	329	24	218
100-249.....	2	10,968	8,667	866	158	1,795	4,281	1,949	120
500-999.....	1								
Montana.....	14	466	384	30	6	70	119	15	21
0.....	4	38	49	12	...	24	36	...	21
1-4.....	7								
5-9.....	2	428	335	18	6	46	83	15	...
10-19.....	1								
Idaho.....	19	11,089	8,816	897	163	1,864	4,416	961	336
0.....	9	7	(²)	...	...	...	...	...	32
1-4.....	5	114	154	31	5	69	135	12	184
5-9.....	1								
10-19.....	1	10,968	8,667	866	158	1,795	4,281	1,949	120
100-249.....	2								
500-999.....	1								
Utah.....	11	341	260	50	4	95	158	9	124
0.....	2	72	36	7	...	11	11	9	20
1-4.....	3								
5-9.....	4	269	224	43	4	84	147	9	104
10-19.....	2								
Nevada.....	19	119	205	47	7	97	184	32	211
0.....	7	36	20	...	...	...	...	...	2
1-4.....	8	4	8	12	2	23	33	9	46
5-9.....	3	79	177	35	5	74	151	23	163
10-19.....	1								
Other States.....	38	133	191	41	10	88	126	18	263
0.....	23	44	40	...	...	1	1	...	87
1-4.....	11	10	32	15	3	27	38	6	93
5-9.....	2	79	119	26	7	60	87	12	83
10-19.....	2								

¹Includes employees at central offices.²Value added was not computed for this group since the combined cost of supplies, crude ore and old tailings received for milling, fuel, purchased electric energy, contract work, and purchased machinery installed exceeded the sum of the value of shipments and capital expenditures. See INTRODUCTION, "Value Added in Mining".

Table 7.—MONTHLY EMPLOYMENT IN THE SILVER ORES INDUSTRY, BY STATE AND TYPE OF OPERATION: 1954

State and type of operation	Average employment for the year ¹	Number of employees by month											
		January	February	March	April	May	June	July	August	September	October	November	December
United States, total.....	1,255	1,164	1,175	1,215	1,228	1,265	1,301	1,295	1,295	1,271	1,241	1,270	1,285
STATE													
Montana.....	36	37	37	39	45	49	43	29	30	28	29	29	31
Idaho.....	1,060	971	966	998	1,005	1,029	1,078	1,115	1,129	1,120	1,100	1,103	1,103
Utah.....	54	47	50	56	59	61	56	55	49	49	41	53	55
Nevada.....	54	63	66	66	55	58	61	53	47	36	35	37	43
Other States.....	51	46	56	56	64	68	63	43	40	38	36	48	53
TYPE OF OPERATION													
Producing establishments, total ²	1,094	1,034	1,035	1,080	1,079	1,110	1,146	1,123	1,129	1,104	1,074	1,094	1,098
Open-pit and combined open-pit and underground mines...	27	38	38	34	20	22	25	25	28	21	16	22	20
Underground mines.....	1,067	996	997	1,046	1,059	1,088	1,121	1,098	1,101	1,083	1,058	1,072	1,078
Nonproducing establishments.....	83	62	72	67	81	87	87	87	81	82	75	84	95

¹Represents the sum of the average employment figures for the year as shown in the separate establishment reports. These are the averages shown in other tables of this report. Because of rounding, the sum of such average figures may differ slightly from an average of the January to December totals shown above.²Excludes employees at central offices which were not classified by type of operation. See table 4, footnote 4.

Table 8.—SELECTED STATISTICS FOR PRODUCING SILVER ORES ESTABLISHMENTS IN THE UNITED STATES, CLASSIFIED BY OUTPUT PER MAN-HOUR: 1954

(For explanation of column captions, see INTRODUCTION)

Output per man-hour ¹	Number of establishments			Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
	Total	Mines only	Mines with mills			Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
Total.....	64	49	15	12,148	9,724	1,005	289	2,100	4,820	2,537	590
Less than \$2.00.....	1	1	...	163	111	23	2	54	81	6	259
\$2.00-\$2.99.....	...	...	...					
\$3.00-\$3.99.....	2	2	...								
\$4.00-\$4.99.....	3	...	3								
\$5.00-\$5.99.....	2	1	1								
\$6.00-\$6.99.....	11,107	8,818	900	83	1,874	4,434	520	...
\$7.00-\$7.99.....	1	...	1								
\$8.00 and over.....	...	...	...					
Unclassified ³	55	45	10	878	795	82	4	172	305	11	331

¹Represents gross value of shipments for each establishment per man-hour of all production, development, and related employees.²Excludes figures for employees at central offices. Central offices were not classified by output per man-hour.³Represents principally reports indicating that a substantial proportion of the work was performed by contractors and a large number of small establishments at which proprietors or partners regularly performed production or development work. Since man-hours of these contractors and proprietors are not included in the man-hours total reported, significant ratios of man-hours to value of shipments could not be computed. See INTRODUCTION, "Output per man-hour".

Table 9.—GENERAL STATISTICS FOR SILVER ORES ESTABLISHMENTS IN THE UNITED STATES, CLASSIFIED BY RATIO OF WAGES AND SALARIES TO VALUE ADDED IN MINING: 1954

(For explanation of column captions, see INTRODUCTION)

Ratio of wages and salaries to value added in mining	Number of establish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by produc- tion and develop- ment workers (1,000)	Wages and salaries		New capital expendi- tures (\$1,000)
				Produc- tion and develop- ment workers	All other employees		Produc- tion and develop- ment workers (\$1,000)	All other employees (\$1,000)	
Total.....	101	12,148	9,856	1,065	190	2,214	5,003	1,035	955
Less than 0.30.....	3	366	289	14	70	32	60	432	16
0.30-0.39.....	5	173	141	15		34	51		
0.40-0.49.....	4	8,857	7,699	677		1,382	3,201		
0.50-0.59.....	6								
0.60-0.69.....	4								
0.70-0.79.....	1	1,189	761	128	15	260	646	63	254
0.80-0.89.....	...								
0.90-0.99.....	2								
1.00 and over.....	33	1,409	896	231	27	506	1,045	101	318
Unclassified ²	43	154	70	...	...	...	...	...	122

¹Includes employees at central offices. These are not included in the detailed figures for establishments classified by ratio of wages and salaries to value added. See table 4, footnote 4.²Represents establishments which reported either no wages or salaries or paid less than \$500 for wages and salaries.

Table 10.—HORSEPOWER OF POWER EQUIPMENT USED IN THE SILVER ORES INDUSTRY IN THE UNITED STATES,
BY GEOGRAPHIC DIVISIONS AND BY TYPE OF OPERATION: 1954

(For explanation of column captions, see INTRODUCTION)

Geographic division and type of operation	Aggregate horsepower per production worker	Aggregate horsepower (prime movers and electric motors driven by purchased energy)				
		Total	Loading equipment	Transportation equipment		All other equipment
				Highway type	Other	
United States, total.....	34	35,765	3,324	8,057	5,547	18,837
GEOGRAPHIC DIVISION						
Mountain.....	33	34,904	3,150	(D)	(D)	18,345
West South Central and Pacific.....	(1)	861	174	(D)	(D)	492
TYPE OF OPERATION						
Producing establishments, total.....	31	31,338	2,782	7,157	5,136	16,263
Open-pit and combined open-pit and underground mines....	114	2,850	500	1,415	150	785
Underground mines.....	29	28,488	2,282	5,742	4,986	15,478
Nonproducing establishments.....	74	4,427	542	900	411	2,574
Prime movers (horsepower)						
Geographic division and type of operation	Total	By type of equipment			By use	
		Loading equipment	Transportation equipment		All other equipment	Driving generators
			Highway type	Other		
United States, total.....	16,904	2,592	8,057	1,227	5,028	1,050
GEOGRAPHIC DIVISION						
Mountain.....	16,145	2,468	(D)	(D)	4,588	1,050
West South Central and Pacific.....	759	124	(D)	(D)	440	...
TYPE OF OPERATION						
Producing establishments, total.....	13,536	2,225	7,157	866	3,288	805
Open-pit and combined open-pit and underground mines....	2,850	500	1,415	150	785	(D)
Underground mines.....	10,686	1,725	5,742	716	2,503	(D)
Nonproducing establishments.....	3,368	367	900	361	1,740	245
Electric motors (horsepower)						
Geographic division and type of operation	Total	By type of equipment			By source of energy	
		Loading equipment	Transportation equipment	All other equipment	Driven by purchased energy	Driven by energy generated at the establishment
United States, total.....	19,793	742	4,475	14,576	18,861	932
GEOGRAPHIC DIVISION						
Mountain.....	19,691	692	4,475	14,524	18,759	932
West South Central and Pacific.....	102	50	...	52	102	...
TYPE OF OPERATION						
Producing establishments, total.....	18,689	567	4,425	13,697	17,802	887
Open-pit and combined open-pit and underground mines....	(D)	...	...	(D)	...	(D)
Underground mines.....	(D)	567	4,425	(D)	17,802	(D)
Nonproducing establishments.....	1,104	175	50	879	1,059	45

(D) Withheld to avoid approximately disclosing figures for individual companies.

¹See table 3, footnote 6.

Table 11.—NUMBER OF POWER LOADING MACHINES IN THE SILVER ORES INDUSTRY IN THE UNITED STATES: 1954 AND 1939,
AND BY GEOGRAPHIC DIVISION: 1954

Type of loading equipment	United States		Mountain	West South Central and Pacific
	1954	1939 ¹		
Surface loading equipment, total.....	225	11	20	5
By kind of power used:				
Electric and Diesel-electric.....	8	5	8	...
Diesel.....	2	6	2	...
Gasoline and other.....	15	{	10	5
Power shovels (less than 3 cubic yards), total.....	5	6	5	...
By kind of power used:				
Electric and Diesel-electric.....	...	1	...	...
Diesel.....	1	5	1	...
Gasoline and other.....	4	{	4	...
Dragline excavators (less than 3 cubic yards), total.....	1	2	1	...
By kind of power used:				
Electric and Diesel-electric.....	...	1	...	...
Diesel.....	...	1	...	...
Gasoline and other.....	1	{	1	...
Scraper loaders, total.....	2	3	2	...
By kind of power used:				
Electric and Diesel-electric.....	...	3	...	...
Diesel.....	1	...	1	...
Gasoline and other.....	1	...	1	...
By rated horsepower:				
Less than 26.....	...	3	...	...
26-100 inclusive.....	2	...	2	...
Cranes and hoists, total.....	17	...	12	5
By kind of power used:				
Electric and Diesel-electric.....	8	...	8	...
Gasoline and other.....	9	...	4	5
Underground loading equipment, total.....	201	52	199	2
By kind of power used:				
Compressed air.....	185	47	183	2
Electric and Diesel-electric.....	10	5	10	...
Diesel.....	2	...	2	...
Gasoline and other.....	4	...	4	...
Shovel loaders requiring a minimum working height of 8 feet or less, total.....	50	25	49	1
By kind of power used:				
Compressed air.....	49	25	48	1
Gasoline and other.....	1	...	1	...
Shovel loaders requiring a minimum working height of more than 8 feet, total.....	9	2	9	...
By kind of power used:				
Compressed air.....	9	...	9	...
Electric and Diesel-electric.....	...	2	...	...
Scraper loaders (including slushers), total.....	142	25	141	1
By kind of power used:				
Compressed air.....	127	22	126	1
Electric and Diesel-electric.....	10	3	10	...
Diesel.....	2	...	2	...
Gasoline and other.....	3	...	3	...
By rated horsepower:				
Less than 10.....	120	6	119	1
10-25 inclusive.....	22	17	22	...
26-100 inclusive.....	...	2	...	...

¹Represents producing operations only.²In addition, 7 bulldozers were reported.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 12.--MATERIALS, SUPPLIES, FUELS, AND ELECTRIC ENERGY USED IN THE SILVER ORES INDUSTRY, BY STATES: 1954

(For explanation of line captions, see INTRODUCTION)

Item	Unit of quantity	United States		Idaho		Other States	
		Quantity	Value	Quantity	Value	Quantity	Value
Crude ore and old tailings milled ¹	1,000 short tons.	410	xxx	372	xxx	38	xxx
Gross metal content:							
Silver.....	1,000 fine ounces	11,651	xxx	11,239	xxx	412	xxx
Gold.....	....do.....	1.5	xxx	0.5	xxx	1.0	xxx
Copper.....	1,000 pounds.....	4,946	xxx	4,919	xxx	27	xxx
Lead.....	....do.....	8,810	xxx	7,827	xxx	983	xxx
Zinc.....	....do.....	2,914	xxx	474	xxx	2,440	xxx
Supplies used, total.....		xxx	2,167	xxx	1,950	xxx	217
Explosives.....	1,000 pounds.....	1,196	236	1,045	211	151	25
Steel mill shapes and forms.....	Short tons.....	1,041	202	986	192	55	10
All other supplies.....		xxx	1,729	xxx	1,547	xxx	182
Fuels used, total.....	Million kwh equivalent.	38	105	24	58	14	47
Coal.....	1,000 short tons.	1	11	1	11	...	...
Distillate fuel oil.....	1,000 barrels....	6	34	2	15	4	19
Residual fuel oil.....	....do.....	5	18	5	18	...	...
Other fuels.....		xxx	42	xxx	14	xxx	28
Electric energy purchased.....	Million kwh.....	43	271	41	239	2	32
Electric energy generated and used.....	....do.....	1	xxx	1	xxx	...	xxx

¹Represents almost entirely ores mined and milled at the same establishments. The only ores received from other establishments for milling were custom ores valued at approximately \$5,000.

Table 13.--WATER USE IN THE SILVER ORES INDUSTRY, BY STATES AND BY TYPE OF OPERATION: 1954

(For explanation of column captions, see INTRODUCTION).

State and type of operation	Number of production and development workers	Value added in mining (\$1,000)	Water intake (except mine water)			Water discharged (except mine water) (million gallons)	Mine water (million gallons)		Gross water use, including recirculation (million gallons)	Percent of total water intake (except mine water) by principal source	
			Million gallons	Million gallons per production worker ¹	Gallons per dollar value added		Used	Drained and discharged		Company surface water systems	Company ground water systems
United States, total.....	1,065	9,856	2,173	2.04	220	2,096	118	330	2,299	99	1
STATE											
Idaho.....	897	8,816	2,152	2.40	244	2,079	...	167	2,152	99	1
Other States.....	168	1,040	21	(²)	21	17	118	163	147	76	24
TYPE OF OPERATION											
Producing establishments, total.....	1,005	9,724	2,172	2.16	223	2,096	117	284	2,293	99	1
Mines only.....	86	607	3	(²)	5	...	...	...	3	100	...
Mines with mills, total..	919	9,117	2,169	2.36	238	2,096	117	284	2,290	99	1
By principal milling method:											
Flotation.....	910	9,040	2,156	2.37	238	2,083	117	284	2,277	99	1
Straight gravity and other.....	9	77	13	(²)	169	13	...	...	13	100	...
Nonproducing establishments.	60	132	1	0.02	8	...	1	46	6	...	100

¹For computations of water intake per production worker, including mine water used, see tables 3 and 4.²See table 3, footnote 6.

Bauxite

This report shows 1954 Census of Mineral Industries statistics for establishments classified in Industry 1051, Bauxite and Other Aluminum Ores. Industry 1051 comprises establishments primarily engaged in mining, milling, or otherwise preparing bauxite and other aluminum ores. In 1954, bauxite was the only aluminum ore produced. Associated activities such as drying, calcining, activating, and sintering are included if they are carried on in conjunction with mining operations or at separately operated establishments. When such preparation activities occur at alumina plants or other manufacturing establishments, they are included as part of the manufacturing plant. Establishments primarily engaged in producing alumina from bauxite are classified as manufacturing in Industry 2819, Industrial Inorganic Chemicals, Not Elsewhere Classified.

The total value of shipments of the bauxite industry in 1954 amounted to \$16.8 million, including shipments of bauxite for processing at preparation plants within the bauxite industry. Net shipments to consumers from this industry totaled approximately \$16.0 million and consisted primarily of shipments of crude bauxite to alumina plants. Shipments of prepared bauxite represented only about 17 percent of the total value of shipments to consumers, amounting to \$1.4 million for dried bauxite and

\$1.3 million for calcined and activated bauxite. In 1939, by contrast, prepared bauxite represented 92 percent of the total value of products of the bauxite industry. (See Table 1.) With the construction since 1939 of alumina facilities closer to domestic mines, there has been an increasing tendency for the crude bauxite to be dried at alumina plants rather than at the mine site. In addition to the predominant use of bauxite in the production of alumina, other principal uses are in the abrasive, chemical, and refractory industries.

The bauxite industry provided the total production of bauxite from domestic sources in 1954; there were no establishments in other industries reporting bauxite as a secondary product. More than two-thirds of all bauxite used in the United States in 1954 was imported. Most of the imported bauxite moved directly to alumina plants; but a small quantity was dried and activated at separately operated preparation plants and was, therefore, included in the statistics for the bauxite industry shown in this report.

The census report form used for the bauxite industry also provided information required by the Bureau of Mines for its annual statistics on bauxite. The Bureau of Mines statistics are comparable with those shown in Table 5 of this report.

Table 1.--COMPARATIVE STATISTICS FOR THE BAUXITE INDUSTRY IN THE UNITED STATES: 1954, 1939, 1935, 1929, 1919, 1909, AND 1902

(For explanation of line captions and for statement on the minimum size of establishments included for each year, see INTRODUCTION)

Item	1954	1939 ¹	1935	1929	1919	1909	1902 ²
Number of operating companies.....	12	10	(NA)	(NA)	(NA)	10	7
Number of establishments.....	25	16	(NA)	³ 9	³ 10	10	(NA)
Number of mines.....	20	12	11	11	15	10	38
Number of preparation plants.....	9	11	(NA)	(NA)	(NA)	(NA)	(NA)
Crude bauxite mined.....1,000 long tons...	2,353	450	(NA)	(NA)	(NA)	(NA)	(NA)
Crude bauxite prepared.....do....	202	391	(NA)	(NA)	(NA)	(NA)	(NA)
Shipments of bauxite to consumers (dried bauxite equivalent).....do....	1,766	⁴ 388	(NA)	⁴ 365	(NA)	(NA)	⁴ 29
Value of shipments, total.....\$1,000...	16,819	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Crude and dried bauxite shipped to preparation plants....do....	790	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Net shipments, total.....do....	16,029	⁵ 2,527	⁵ 1,545	⁵ 2,239	⁵ 2,190	⁵ 671	⁵ 128
Crude bauxite shipped to consumers.....do....	13,190	⁵ 193	(NA)	(NA)	(NA)	(NA)	(NA)
Prepared bauxite.....do....	2,756	⁵ 2,334	(NA)	(NA)	(NA)	(NA)	(NA)
Other products and services.....do....	83	...	(NA)	(NA)	(NA)	(NA)	(NA)
Value added in mining.....do....	12,827	1,965	1,188	1,781	1,748	615	87
Number of persons engaged, total.....	854	827	636	690	806	599	⁶ 192
Production and development workers.....	661	727	559	602	738	563	150
All other employees ⁷	191	100	77	87	66	35	42
Proprietors and firm members.....	2	...	(NA)	1	2	1	(NA)

For footnotes, see end of table.

MINERAL INDUSTRIES - INDUSTRY STATISTICS

Table 1.--COMPARATIVE STATISTICS FOR THE BAUXITE INDUSTRY IN THE UNITED STATES: 1954, 1939, 1935, 1929, 1919, 1909, AND 1902--Continued

Item	1954	1939 ¹	1935	1929	1919	1909	1902 ²
Man-hours worked by production and development workers, total.....1,000...	1,288	1,176	(NA)	(NA)	(NA)	(NA)	(NA)
At mines, total.....do....	1,074	⁸ 687	(NA)	(NA)	(NA)	(NA)	(NA)
Underground.....do....	281	⁸ 399	(NA)	(NA)	(NA)	(NA)	(NA)
Open-pit.....do....	210	⁸ 184	(NA)	(NA)	(NA)	(NA)	(NA)
Surface (including shops and yards).....do....	583	⁸ 104	(NA)	(NA)	(NA)	(NA)	(NA)
At preparation plants.....do....	214	⁸ 461	(NA)	(NA)	(NA)	(NA)	(NA)
Shipments of bauxite to consumers per man-hour (dried bauxite equivalent).....Long tons...	1.37	⁹ 0.33	(NA)	(NA)	(NA)	(NA)	(NA)
Principal expenses designated below, total.....\$1,000...	7,527	¹⁰ 1,381	¹⁰ 818	¹⁰ 1,248	¹⁰ 1,541	¹⁰ 286	¹⁰ 134
Wages of production and development workers.....do....	2,529	578	330	513	942	198	60
Salaries of all other employees ⁷.....do....	1,052	241	131	277	157	32	33
Crude and dried bauxite received for preparation.....do....	1,181	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Supplies.....do....	789	269	213	216	304	22	40
Fuel.....do....	239	187	105	122	138	1134	
Purchased electric energy.....do....	134	60	39	38	...		
Contract work.....do....	1,603	46	(NA)	82	...	...	1
Purchased machinery installed.....do....	356	(NA)	(NA)	96	(NA)	(NA)	(NA)
Capital expenditures, total.....do....	310	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Development and exploration of mineral property.....do....	24	(NA)	(NA)	13	11	(NA)	(NA)
Preparation plant construction.....do....	...	20	(NA)	(NA)	(NA)	(NA)	(NA)
Other construction.....do....	11		(NA)	(NA)	(NA)	(NA)	(NA)
New machinery and equipment.....do....	271	173	(NA)	(NA)	(NA)	(NA)	(NA)
Used plant and equipment.....do....	4	7	(NA)	(NA)	(NA)	(NA)	(NA)
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	48,732	13,290	(NA)	5,711	2,507	1,565	624
Per production worker.....	74	18	(NA)	10	3	3	¹² 4
Prime movers.....	30,644	5,002	(NA)	2,124	2,507	1,565	624
Electric motors driven by purchased energy.....	18,088	8,288	(NA)	3,587	...	...	...
Horsepower rating of electric motors driven by energy generated at the establishments reported.....	...	...	(NA)	...	2,564	180	64
Energy used.....Million kwh equivalent...	170	270	(NA)	(NA)	217	(NA)	(NA)
Coal.....1,000 short tons...	...	2	(NA)	(NA)	11	(NA)	(NA)
Distillate fuel oils.....1,000 barrels...	15	14	(NA)	(NA)	1	(NA)	(NA)
Natural gas.....Million cu. ft...	370	716	(NA)	(NA)	276	(NA)	(NA)
Purchased electric energy.....Million kwh...	9	4	(NA)	(NA)	(NA)	(NA)	(NA)

...Represents zero.

NA Not available.

¹Excludes statistics for two nonproducing mines. Figures for these bauxite operations were combined in 1939 with the figures for two nonproducing manganese-ore mines and one chromite mine. For the five nonproducing operations combined, employment averaged 21 for the year and principal expenses amounted to approximately \$66,000. There were no nonproducing operations reported for years prior to 1939.

²The 1902 Census report contains the results of the first census of the mining of bauxite in the United States.

³The number of establishments for 1929 and 1919 may be understated somewhat relative to the figures for later years. See INTRODUCTION.

⁴Represents production. Figure for 1939 represents the estimated dried-bauxite equivalent of crude ore mined during the year. For 1929 and 1902, figures for the very small quantity of bauxite, other than dried bauxite, were not converted to dried-bauxite equivalent.

⁵Represents value of products; value of "Crude bauxite shipped to consumers" for 1939 represents the value of crude bauxite mined but not prepared. Total for 1902 excludes the value of other products and services.

⁶Figures for average employment were converted to a 300-day basis for establishments which operated for a shorter period.

⁷Statistics for 1935 exclude data for persons employed at central offices not located on the mine property. No such central office employees were reported for 1954.

⁸Excludes man-hours worked on inactive days, amounting to approximately 28,000, which are not available by department.

⁹Represents production. See footnote 4.

¹⁰Excludes the cost of crude and dried bauxite received from other establishments for preparation.

¹¹Includes the cost of purchased power other than electric energy.

¹²See footnote 6.

Table 2.--COMPARATIVE STATISTICS FOR THE BAUXITE INDUSTRY, BY STATES: 1954 AND 1939

(For explanation of column captions, see INTRODUCTION)

State and year	Value of shipments (\$1,000)	Number of employees		Designated principal expenses (\$1,000)						Aggregate horsepower rating of power equipment
		Production and development workers	All other employees	Wages of production and development workers	Salaries of all other employees	Supplies	Fuel	Purchased electric energy	Contract work	
United States, total										
1954.....	16,819	661	191	2,529	1,052	789	239	134	1,603	48,732
1939.....	¹² 2,527	727	100	578	241	269	187	60	46	13,290
Arkansas										
1954.....	15,889	624	182	2,463	1,009	(D)	209	129	1,411	46,965
1939.....	¹² 2,442	695	86	562	181	267	180	58	23	12,948
Other States ²										
1954.....	930	37	9	66	43	(D)	30	5	192	1,767
1939.....	¹⁸ 5	32	14	16	60	2	7	2	23	342

D Withheld to avoid approximately disclosing figures for individual companies.

¹Represents "Net value" of production. See table 1.

²For 1954, represents Georgia, Alabama, and Oregon. For 1939, represents Alabama and Florida.

BAUXITE

10H-3

Table 3.--DETAILED STATISTICS FOR THE BAUXITE INDUSTRY, BY GEOGRAPHIC DIVISIONS AND STATES: 1954

(For explanation of line captions, see INTRODUCTION)

Item	United States, total	West South Central (Arkansas)	Other States (Georgia, Alabama, and Oregon ¹)
Number of operating companies.....	12	10	4
Number of establishments.....	25	17	8
Number of mines.....	20	13	7
Number of preparation plants.....	9	7	2
Crude bauxite mined.....1,000 long tons...	2,353	2,297	56
Shipments of bauxite to consumers (dried bauxite equivalent).....do.....	1,766	1,711	55
Value of shipments.....\$1,000...	16,819	15,889	930
Value added in mining.....do.....	12,827	12,383	444
Number of persons engaged, total.....	854	807	47
Production and development workers.....	661	624	37
All other employees.....	191	182	9
Proprietors and firm members ²	2	1	1
Man-hours worked by production and development workers.....1,000...	1,288	1,221	67
Shipments of bauxite to consumers per man-hour (dried bauxite equivalent).....Long tons...	1.37	1.40	0.82
Principal expenses designated below, total.....\$1,000...	7,527	6,929	598
Wages of production and development workers.....do.....	2,529	2,463	66
Salaries of all other employees.....do.....	1,052	1,009	43
Supplies and crude and dried bauxite received for preparation.....do.....	1,970	1,708	262
Fuel.....do.....	239	209	30
Purchased electric energy.....do.....	134	129	5
Contract work.....do.....	1,603	1,411	192
Purchased machinery installed.....do.....	356	334	22
Capital expenditures, total.....do.....	310	285	25
Development and exploration of mineral property and construction.....do.....	35	17	18
Machinery and equipment.....do.....	275	268	7
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	48,732	46,965	1,767
Per production worker.....	74	75	48
Prime movers.....	30,644	29,197	1,447
Electric motors driven by purchased energy.....	18,088	17,768	320
Energy used.....Million kwh equivalent...	170	157	13
Distillate fuel oils.....1,000 barrels...	15	9	6
Natural gas.....Million cu. ft.....	370	370	...
Purchased electric energy.....Million kwh...	9	8	1
Water intake.....Million gallons...	179	179	...
Per production worker.....do.....	0.27	0.29	...

...Represents zero.

¹Represents five establishments in Georgia, two in Alabama, and one establishment in Oregon engaged only in exploration and ore sampling.²None were engaged in performing manual labor.

Table 4.--DETAILED STATISTICS FOR THE BAUXITE INDUSTRY IN THE UNITED STATES, BY TYPE OF OPERATION: 1954

(For explanation of line captions, see INTRODUCTION)

Item	All types of establish- ments	Type of establishment			Preparation plants (with or without mines), by principal preparation method		
		Mines only ¹	Mines with preparation plants ²	Preparation plants only	Total	Drying	Calcining and activating
Number of operating companies.....	12	8	4	4	8	4	4
Number of establishments.....	25	16	4	5	9	5	4
Number of mines.....	20	16	4	...	4	2	2
Number of preparation plants.....	9	...	4	5	9	5	4
Crude bauxite prepared.....1,000 long tons...	202	...	67	135	202	(D)	(D)
Shipments of bauxite to consumers (dried bauxite equivalent).....do.....	1,766	1,586	71	109	180	123	57
Value of shipments.....\$1,000...	16,819	13,695	735	2,389	3,124	1,664	1,460
Value added in mining.....do.....	12,827	11,262	531	1,034	1,565	605	960
Number of persons engaged, total.....	854	699	68	87	155	79	76
Production and development workers.....	661	543	57	61	118	58	60
All other employees.....	191	155	11	25	36	21	15
Proprietors and firm members.....	2	1	...	1	1	...	1
Man-hours worked by production and development workers, total.....1,000...	1,288	1,054	111	123	234	113	121
At mines.....do.....	1,074	1,054	20	...	20	(D)	(D)
At preparation plants.....do.....	214	...	91	123	214	(D)	(D)
Shipments of bauxite to consumers per man-hour (dried bauxite equivalent).....Long tons...	1.37	1.50	0.64	0.89	0.77	1.09	0.47

For footnotes, see end of table.

MINERAL INDUSTRIES - INDUSTRY STATISTICS

Table 4.--DETAILED STATISTICS FOR THE BAUXITE INDUSTRY IN THE UNITED STATES, BY TYPE OF OPERATION: 1954--Continued
(For explanation of line captions, see INTRODUCTION)

Item	All types of establishments	Type of establishment			Preparation plants (with or without mines), by principal preparation method		
		Mines only ¹	Mines with preparation plants ²	Preparation plants only	Total	Drying	Calcining and activating
Principal expenses designated below, total.....\$1,000...	7,527	5,366	465	1,696	2,161	1,348	813
Wages of production and development workers.....do....	2,529	2,104	201	224	425	184	241
Salaries of all other employees.....do....	1,052	858	54	140	194	120	74
Crude and dried bauxite received for preparation.....do....	1,181	...	...	...	1,181	...	...
Supplies and contract work.....do....	2,392	2,172	147	1,254	220	962	439
Fuel.....do....	239	128	52	59	111	64	47
Purchased electric energy.....do....	134	104	11	19	30	18	12
Purchased machinery installed.....do....	356	292	2	62	64	31	33
Capital expenditures.....do....	310	263	8	39	47	16	31
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	48,732	42,476	3,084	3,172	6,256	2,604	3,652
Per production worker.....	74	78	54	52	53	45	61
Prime movers.....	30,644	27,816	1,365	1,463	2,828	863	1,965
Electric motors driven by purchased energy.....	18,088	14,660	1,719	1,709	3,428	1,741	1,687
Energy used.....Million kwh equivalent...	170	45	56	69	125	85	40
Distillate fuel oils.....1,000 barrels...	15	9	(D)	(D)	6	6	...
Natural gas.....Million cu. ft...	370	11	161	198	359	236	123
Purchased electric energy.....Million kwh...	9	7	1	1	2	1	1
Water intake.....Million gallons...	179	164	5	10	15	1	14
Per production worker.....do....	0.27	0.30	0.09	0.16	0.13	0.02	0.23

...Represents zero.

D Withheld to avoid approximately disclosing figures for individual companies.

¹Represents 12 open-pit mines, two underground mines, and two mines reporting both open-pit and underground operations. The latter two mines accounted for more than three-fourths of the total value of shipments, employment, and principal expenses shown for the 16 mines operated without preparation plants.

²Represents two preparation plants with nonproducing mines and two plants with producing open-pit mines.

Table 5.--PRODUCTS OF THE BAUXITE INDUSTRY IN THE UNITED STATES: 1954 AND 1939
(For explanation of column captions, see INTRODUCTION)

Item	1954				1939 production		
	Production (1,000 long tons)	Shipments, including interplant transfers			Quantity (1,000 long tons)		
		Quantity (1,000 long tons)		Value (\$1,000)	Quantity (1,000 long tons)		Value (\$1,000)
		As produced	Dried bauxite equivalent		As produced	Dried bauxite equivalent	
All products and services, total.....	xxx	xxx	xxx	16,819	xxx	xxx	2,527
PRIMARY PRODUCTS ¹							
Crude bauxite mined.....	² 2,353	xxx	xxx	xxx	450	xxx	xxx
Crude and dried bauxite shipped to preparation plants.....	xxx	119	101	790	(NA)	(NA)	(NA)
Crude bauxite shipped to consumers.....	xxx	1,889	1,607	13,190	³ 59	³ 49	³ 193
Prepared bauxite, total.....	² 147	147	159	2,756	300	339	2,334
Dried ⁴	122	122	122	1,442	233	233	1,254
Calcined and activated.....	25	25	37	1,314	67	106	1,080
SECONDARY PRODUCTS AND SERVICES							
Iron tailings, kaolin, and filtered water sold.....	xxx	xxx	xxx	57	xxx	xxx	...
Amount received or due for services ⁵	xxx	xxx	xxx	26	xxx	xxx	...

...Represents zero.

xxxNot applicable.

NA Not available.

¹These figures for the bauxite industry represent the totals for all industries, since no bauxite was produced by establishments classified in other industries.

²Crude bauxite stocks at mines and preparation plants were reported as approximately 677,000 long tons on December 31, 1953, and 964,000 long tons on December 31, 1954. On both dates, stocks of prepared bauxite amounted to less than five percent of the total prepared bauxite produced during 1954.

³Crude ore mined but not treated.

⁴Excludes dried bauxite subsequently treated to produce activated bauxite.

⁵To avoid duplication, excludes receipts for drying bauxite on a custom basis. The value of custom dried bauxite is included in the total value shown for dried bauxite.

Table 6.--GENERAL STATISTICS FOR BAUXITE ESTABLISHMENTS CLASSIFIED BY EMPLOYMENT SIZE, FOR THE UNITED STATES: 1954

(For explanation of column captions, see INTRODUCTION)

Number of employees in establishment	Number of establishments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
United States, total.....	25	16,819	12,827	661	191	1,288	2,529	1,052	306
0.....	1	2,047	1,434	13	5	19	28	26	19
1-4.....	8								
5-9.....	4								
10-19.....	6	1,752	678	72	21	137	204	120	21
20-49.....	4								
50-249.....	...								
250-499.....	2	13,020	10,715	550	165	1,066	2,200	906	248
500 and over.....	...								

...Represents zero.

Table 7.--MONTHLY EMPLOYMENT IN THE BAUXITE INDUSTRY, BY GEOGRAPHIC DIVISIONS AND STATES AND BY TYPE OF OPERATION: 1954

Geographic division, State, and type of operation	Average employment for the year ¹	Number of employees by month											
		January	February	March	April	May	June	July	August	September	October	November	December
United States, total.....	852	852	837	844	832	832	849	851	855	857	861	857	855
By geographic divisions and States													
West South Central (Arkansas).....	806	800	794	802	789	789	805	812	810	809	812	804	808
South Atlantic, East South Central, and Pacific (Georgia, Alabama, and Oregon).....	46	52	43	42	43	43	44	39	45	48	49	53	47
By type of operation													
Mines only.....	698	697	687	685	682	684	700	700	703	701	704	706	700
Mines with preparation plants.....	68	69	63	70	64	65	67	68	69	66	75	67	67
Preparation plants only.....	86	86	87	89	86	83	82	83	83	90	82	84	88

¹Represents the sum of the average employment figures for the year as shown on the separate establishment reports. (These are the averages shown in other tables of this report.) Because of rounding the sum of such averages may differ slightly from an average of the January to December totals shown above.

Table 8.--GENERAL STATISTICS FOR BAUXITE ESTABLISHMENTS CLASSIFIED BY OUTPUT PER MAN-HOUR, FOR THE UNITED STATES: 1954

(For explanation of column captions, see INTRODUCTION)

Output per man-hour (long tons of dried bauxite equivalent)	Number of establishments	Number of mines	Number of preparation plants	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
						Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
United States, total.....	25	20	9	16,819	12,827	661	191	1,288	2,529	1,052	306
Less than 0.20.....	...	...	...	...	...	...	...	...	...	...	...
0.20-0.39.....	2	...	2	1,395	903	61	13	124	195	66	30
0.40-0.59.....	2	2	1								
0.60-0.79.....	3	3	1								
0.80-1.19.....	...	...	...	793	665	74	...	148	271	...	...
1.20-1.39.....	1	1	...								
1.40-1.59.....	...	...	...					
1.60-1.79.....	1	...	1	7,175	5,594	273	80	518	1,098	471	163
1.80-1.99.....	2	1	1								
2.00 and over.....	1	...	1								
Unclassified ¹	13	13	2	7,456	5,665	253	92	498	965	472	92

...Represents zero.

¹Principally reports indicating that a substantial proportion of the production was performed by contractors. The bauxite produced by this contract work is included in the total production but the man-hours spent at such work are excluded from the man-hour total. Therefore, a valid ratio could not be computed. See INTRODUCTION.

MINERAL INDUSTRIES - INDUSTRY STATISTICS

Table 9.--GENERAL STATISTICS FOR BAUXITE ESTABLISHMENTS CLASSIFIED BY RATIO OF WAGES AND SALARIES TO VALUE ADDED IN MINING, FOR THE UNITED STATES: 1954

(For explanation of column captions, see INTRODUCTION)

Ratio of wages and salaries to value added in mining	Number of establishments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
United States, total.....	25	16,819	12,827	661	191	1,288	2,529	1,052	306
Less than 0.30.....	13	8,760	7,339	309	78	591	1,186	445	198
0.30-0.39.....	4			251	93	499	962	487	68
0.40-0.49.....	2	6,913	5,204						
0.50-0.59.....	1			64	8	120	243	48	13
0.60-0.69.....	1								
0.70-0.79.....	2								
0.80-0.99.....	...	1,146	284	37	12	78	138	72	19
1.00 and over.....	2								...

...Represents zero.

Table 10.--HORSEPOWER OF POWER EQUIPMENT USED IN THE BAUXITE INDUSTRY, BY GEOGRAPHIC DIVISIONS AND BY TYPE OF OPERATION: 1954

(For explanation of line captions, see INTRODUCTION)

Item	United States, total	By geographic divisions		By type of operation		
		West South Central (Arkansas)	Other States (Georgia, Alabama, and Oregon)	Mines only	Mines with preparation plants	Preparation plants only
Aggregate horsepower per production worker.....	74	75	48	78	54	52
Aggregate horsepower (prime movers and electric motors driven by purchased energy), total.....	48,732	46,965	1,767	42,476	3,084	3,172
Loading equipment.....	6,193	5,783	410	5,710	230	253
Transportation equipment						
Highway type.....	11,246	10,209	1,037	9,071	965	1,210
Other.....	12,346	12,346	...	12,266	(D)	(D)
All other equipment.....	18,947	18,627	320	15,429	(D)	(D)
Prime movers (horsepower), total ¹	30,644	29,197	1,447	27,816	1,365	1,463
Loading equipment.....	3,407	2,997	410	(D)	(D)	253
Transportation equipment						
Highway type.....	11,246	10,209	1,037	9,071	965	1,210
Other.....	12,026	12,026	...	12,026	...	...
All other equipment.....	3,965	3,965	...	(D)	(D)	...
Electric motors (horsepower), total ²	18,088	17,768	320	14,660	1,719	1,709
Loading equipment.....	2,786	2,786	...	(D)	(D)	...
Transportation equipment.....	320	320	...	240	(D)	(D)
All other equipment.....	14,982	14,662	320	(D)	(D)	(D)

...Represents zero.

¹Withheld to avoid approximately disclosing figures for individual companies.²Less than two percent of the total horsepower of prime movers represents equipment used to drive generators; this equipment was on a stand-by basis during 1954.²All electric motors were driven by purchased energy.

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Table 11.--NUMBER OF POWER LOADING MACHINES IN THE BAUXITE INDUSTRY IN THE UNITED STATES: 1954 AND 1939,
AND BY GEOGRAPHIC DIVISIONS AND STATES: 1954

Type of loading equipment	United States		West South Central (Arkansas)	Other States (Georgia, Alabama, and Oregon)
	1954	1939		
Surface loading equipment, total.....	138	13	29	9
By kind of power used				
Steam.....	...	8	...	...
Electric and Diesel-electric.....	4	1	4	...
Diesel.....	28	4	{ 21	7
Gasoline and other.....	6			2
Power shovels, total.....	25	9	23	2
By kind of power used				
Steam.....	...	5	...	...
Electric and Diesel-electric.....	1	...	1	...
Diesel.....	18	4	{ 18	...
Gasoline and other.....	6			2
By dipper or bucket capacity (cubic yards)				
Less than 3.....	25	8	23	2
3-5 inclusive.....	...	1	...	...
Dragline excavators, total.....	8	...	6	2
By kind of power used				
Electric and Diesel-electric.....	3	...	3	...
Diesel.....	5	...	3	2
By dipper or bucket capacity (cubic yards)				
Less than 3.....	6	...	4	2
3-5 inclusive.....	1	...	1	...
6-12 inclusive.....	1	...	1	...
Scraper loaders, total.....	1	1	...	1
By kind of power used				
Electric and Diesel-electric.....	...	1	...	...
Diesel.....	1	...	...	1
By rated horsepower				
Less than 10.....	1	...	...	1
10-25 inclusive.....	...	1	...	...
Cranes and hoists (steam).....	...	1	...	...
Pumps, total.....	4	2	...	4
By kind of power used				
Steam.....	...	2	...	...
Diesel.....	4	...	...	4
Underground loading equipment, total.....	9	1	9	...
By kind of power used				
Electric and Diesel-electric.....	9	...	9	...
Compressed air.....	...	1	...	...
Shovel loaders requiring a minimum working height of 8 feet or less, total.....	2	1	2	...
By kind of power used				
Electric and Diesel-electric.....	2	...	2	...
Compressed air.....	...	1	...	...
Mobile loaders (electric and Diesel-electric).....	6	...	6	...
Continuous mining machines (electric and Diesel-electric).....	1	...	1	...

...Represents zero.

¹In addition, four Diesel bulldozers were reported.

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Table 12.--MATERIALS, SUPPLIES, FUELS, AND ELECTRIC ENERGY USED IN THE BAUXITE INDUSTRY IN THE UNITED STATES: 1954

(For explanation of line captions, see INTRODUCTION)

Item	Unit of measure for quantity	Quantity	Cost (\$1,000)
Crude bauxite prepared, total.....	1,000 long tons.....	202	xxx
Mined and treated at the same establishment.....	...do.....	67	xxx
Received from other establishments of same company, purchased, or received for preparation on a custom basis.....	...do.....	135	¹ 1,181
Supplies used, total.....	.....	xxx	789
Explosives.....	1,000 pounds.....	749	148
Steel mill shapes and forms.....	Short tons.....	43	5
All other supplies.....	.....	xxx	636
Fuels used, total.....	Million kwh equivalent..	161	239
Distillate fuel oil.....	1,000 barrels.....	15	72
Natural gas.....	Million cu. ft.....	370	80
Gasoline and other fuels.....	.....	xxx	87
Electric energy purchased.....	Million kwh.....	² 9	134

xxxNot applicable.

¹Includes the cost of dried bauxite received for use in the production of activated bauxite.²Represents the total quantity of electric energy used; no electric energy was reported generated by establishments in the bauxite industry.

Table 13.--WATER USE IN THE BAUXITE INDUSTRY IN THE UNITED STATES, BY TYPE OF OPERATION: 1954

(For explanation of column captions, see INTRODUCTION)

Type of operation	Number of production and development workers	Value added in mining (\$1,000)	Water intake (except mine water)			Water discharged (except mine water) (Million gallons)	Mine water drained and discharged (Million gallons)	Gross water use, including recirculation ¹ (Million gallons)	Percent of total water intake by principal source		
			Million gallons	Million gallons per production worker	Gallons per dollar value added				Public water systems	Company surface water systems	Company ground water systems
United States, total ²	661	12,827	179	0.27	14	179	492	179	2	97	1
Mines only.....	543	11,262	164	0.30	15	164	492	164	...	100	...
Mines with preparation plants....	57	531	5	0.09	9	5	...	5	80	...	20
Preparation plants only.....	61	1,034	10	0.16	10	10	...	10	...	100	...

...Represents zero.

¹Equivalent to "Water intake (except mine water)," since no mine water was used and no water was recirculated.²Only establishments in Arkansas reported data on water use. Presumably water use at each establishment in other States was less than 1,000,000 gallons.

Ferro-Alloy Ores, Except Vanadium

This report shows 1954 Census of Mineral Industries statistics for establishments classified in Industry Group 106, Ferro-Alloy Ores, Except Vanadium. The separate industries included in Industry Group 106 are as follows:

- Industry 1062, Manganese Ores: Establishments primarily engaged in mining, milling, or otherwise preparing manganese ores, such as pyrolusite, rhodochrosite, psilomelane, and manganite.
- Industry 1063, Molybdenum Ores: Establishments primarily engaged in mining, milling, or otherwise preparing molybdenum ores, such as molybdenite, wulfenite, and molybdate.
- Industry 1064, Tungsten Ores: Establishments primarily engaged in mining, milling, or otherwise preparing tungsten ores, such as scheelite, wolframite, ferberite, and hubnerite.
- Industry 1069, Ferro-Alloy Ores, Except Vanadium, Not Elsewhere Classified: Establishments primarily engaged in mining, milling, or otherwise preparing ferro-alloy ores not elsewhere classified, such as chromium, nickel, and columbium.

Although establishments primarily engaged in mining or preparing cobalt ores are currently classified in Industry 1099, Metallic Minerals, Not Elsewhere Classified, such establishments have been included in this report as part of Industry 1069 since cobalt is most closely related in use to chromium, nickel, and other ferro-alloy ores. Vanadium ores are classified in Industry 1094, Uranium-Radium-Vanadium ores. Titanium and zirconium ores, used sometimes for ferro-alloying but principally for other purposes, are classified, respectively, in Industry 1093, Titanium Ores, and Industry 1459, Clay, Ceramic, and Refractory Minerals, Not Elsewhere Classified. Manganiferous ores that are valued chiefly for their iron content are classified in Industry 1011, Iron Ores. Establishments primarily engaged in smelting ferro-alloy ores and in recovering metals or alloys therefrom are classified as manufacturing plants in Major Group 33, Primary Metal Industries, principally in Industry 3339, Primary Smelting and Refining of Nonferrous Metals, N.E.C.

Separate statistics are shown in this report for establishments classified in Industry 1062 and in Industry 1064. Statistics for Industry 1063 have been combined with those for Industry 1069 in order to avoid approximately disclosing figures for individual companies. Separate statistics are shown in some tables, however, for the chromite ores subindustry of Industry 1069.

The total value of shipments of the ferro-alloy ores, except vanadium, industries in 1954 amounted to \$154 million. Of this total, the manganese ores industry accounted for approximately \$32 million; the tungsten ores industry, \$61 million; and the molybdenum ores and ferro-alloy ores, n.e.c. industries, nearly another \$61 million. Of this latter figure, the chromite ores subindustry accounted for approximately \$7 million. These figures contain some duplication since they include the value of milling ores and, in the case of tungsten, low-grade concentrates shipped for preparation at plants within these industries. Separate figures on the value of such shipments are not available and, therefore, the value of net shipments from these industries, excluding this duplication, cannot be precisely computed. On the

basis of the reported cost of ores and concentrates received for preparation at plants within the ferro-alloy ores industries, it is estimated that this duplication amounts to between 15 and 20 percent for the manganese ores and tungsten ores industries and between 5 and 10 percent for the chromite ores subindustry. The value of secondary products and of receipts for services for all of these industries was in excess of \$5 million, or nearly 4 percent of the total value of shipments of the ferro-alloy ores industries.

The report forms used for the ferro-alloy ores industries by the Bureau of the Census for the 1954 Census of Mineral Industries also provided information required by the Bureau of Mines for its annual statistics on ferro-alloy ores. There are differences in the statistics on products, as shown by these two bureaus, arising principally from the difference in methods followed and objectives sought in compiling and presenting the statistics. The nature of such differences are summarized below:

1. The statistics on manganese ores and concentrates published by the Bureau of the Census include milling ores shipped to beneficiation plants and ores shipped to General Services Administration depots at Wenden, Arizona; Deming, New Mexico; and Butte and Phillipsburg, Montana. Such shipments are excluded by the Bureau of Mines. Similarly, Bureau of the Census statistics on tungsten concentrates include low-grade concentrates requiring further treatment prior to acceptance by the General Services Administration, whereas the Bureau of Mines statistics refer to high-grade concentrates only. In the case of chromium ores and concentrates, statistics are published in such detail in this report as to provide figures nearly comparable with those of the Bureau of Mines at the United States total level. Specifically, the sum of such figures in this report on chromium concentrates and on chromium ores containing 35 percent or more Cr_2O_3 is approximately the same as the figure on chromite production published by the Bureau of Mines.

2. The Bureau of the Census excludes from its statistics on manganese ores all ores valued chiefly for their iron content regardless of the percent of manganese contained. The Bureau of Mines includes some such ores, as well as ores valued chiefly for their manganese content, in its statistics on ferrous manganese ores, those ores containing 10 to 35 percent manganese.

3. The Bureau of the Census has included in its statistics on concentrates figures covering a small quantity of imported ores concentrated at preparation plants in the United States. Statistics on mine production published by the Bureau of Mines refer only to domestic ores.

4. Figures for establishments with value of shipments of less than \$500 are excluded from this report unless the expenses for development and maintenance work amounted to \$500 or more. The Bureau of Mines includes production of all domestic mines, regardless of the size of the operation.

5. Differences in the statistics by State also arise from the fact that concentrates produced in one State from ores mined in another are assigned by the Bureau of Mines to the State in which the mine is located, whereas the Bureau of the Census includes such concentrates in the statistics for the State in which the preparation plant is located.

Table 1.—COMPARATIVE STATISTICS FOR THE FERRO-ALLOY ORES, EXCEPT VANADIUM, INDUSTRIES IN
(For explanation of line captions and for statement on the minimum

Item	Ferro-alloy ores, except vanadium, industries, total		Manganese ores industry							
	1954	1939 ⁴	1954	1939 ⁴	1929 ⁴	1919 ⁴	1909	1902 ⁴	1889	1880
1 Number of operating companies.....	972	(NA)	319	26	(NA)	(NA)	10	19	(NA)	(NA)
2 Number of establishments.....	1,086	(NA)	367	(NA)	19	35	10	(NA)	(NA)	(NA)
3 Number of mines.....	1,042	103	360	34	21	37	23	19	(NA)	6
4 Number of preparation plants.....	297	53	63	14	(NA)	8	(NA)	(NA)	(NA)	(NA)
5 Manganese ores and concentrates ⁶.....1,000 long tons..	xxx	xxx	6830	48	41	(NA)	(NA)	16	24	11
6 Tungsten concentrates ⁷.....1,000 short tons..	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
7 Units of WO ₃ contained ⁷.....1,000..	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
8 Value of shipments, total ⁹.....\$1,000..	153,671	(NA)	32,398	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
9 Net shipments, total ⁹.....do....	(⁹)	19,757	(⁹)	945	1,184	2,188	31	¹⁰ 178	¹⁰ 241	¹⁰ 103
10 Primary products of the industry.....do....	148,234	19,581	31,298	890	922	2,155	31	{	178	241
11 Other products and services.....do....	5,437	176	1,100	55	262	33			(NA)	(NA)
12 Value added in mining.....do....	107,399	16,404	18,118	707	967	1,493	22	160	(NA)	87
13 Number of persons engaged, total.....	9,493	2,545	3,062	557	393	1,032	105	212	432	232
14 Production and development workers.....	6,838	2,168	2,266	504	354	909	88	¹¹ 194	{	¹² 222
15 All other employees.....	1,240	325	338	41	35	88	7	18		
16 Proprietors and firm members.....	1,415	52	458	12	4	35	10	(NA)	(NA)	(NA)
17 Performing manual labor.....	1,214	31	386	4	(NA)	6	1	(NA)	(NA)	(NA)
18 Man-hours worked by production and development workers, total.....1,000..	15,122	4,686	4,293	959	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
19 At mines.....do....	10,781	¹³ 3,046	2,973	¹³ 630	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
20 Underground.....do....	7,482	¹³ 2,352	1,677	¹³ 390	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
21 Open-pit.....do....	1,484	¹³ 253	894	¹³ 149	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
22 Surface (including mine shops and yards).....do....	1,815	¹³ 375	402	¹³ 91	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
23 At plants.....do....	4,341	¹³ 1,622	1,320	¹³ 321	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
24 Man-hours spent on development and exploration work (included above).....do....	1,030	(NA)	260	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
25 Principal expenses designated below, total.....\$1,000..	91,851	¹⁴ 7,348	24,532	¹⁴ 804	¹⁴ 697	1,915	43	¹⁴ 102	¹⁴ 124	¹⁴ 63
26 Wages of production and development workers.....do....	31,330	3,096	7,643	483	392	1,086	27	75	{	124
27 Salaries of all other employees.....do....	7,205	899	1,649	83	88	134	7	9		
28 Minerals received for preparation.....do....	16,734	(NA)	5,382	(NA)	(NA)	...	...	(NA)	(NA)	(NA)
29 Supplies.....do....	23,235	2,557	5,087	161	140	448	7	{	{	16
30 Fuel.....do....	2,011	180	721	37	32	52	2			
31 Purchased electric energy.....do....	2,519	518	477	40	39	46	{	{	{	...
32 Contract work.....do....	8,817	98	3,573	...	6	149	...			
33 Purchased machinery installed.....do....	8,475	(NA)	2,304	(NA)	12	(NA)	(NA)	(NA)	(NA)	(NA)
34 Capital expenditures, total.....do....	15,519	(NA)	3,264	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
35 Development and exploration of mineral property.....do....	3,185	(NA)	607	(NA)	40	238	(NA)	(NA)	(NA)	(NA)
36 Preparation plant construction.....do....	3,103	{	546	{	3	(NA)	(NA)	(NA)	(NA)	(NA)
37 Other construction.....do....	2,206		162		(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
38 New machinery and equipment.....do....	5,577	336	1,366	29	{	(NA)	(NA)	(NA)	(NA)	(NA)
39 Used plant and equipment.....do....	1,448	150	583	6		(NA)	(NA)	(NA)	(NA)	(NA)
40 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	368,320	56,415	105,611	5,035	2,342	5,800	463	354	(NA)	87
41 Per production worker.....	54	26	47	10	7	6	5	¹⁵ 2	(NA)	(¹⁶)
42 Prime movers.....	205,204	13,622	64,966	2,312	177	2,610	463	354	(NA)	(NA)
43 Electric motors driven by purchased energy.....	163,116	42,793	40,645	2,723	2,165	3,190	...	...	(NA)	(NA)
44 Horsepower rating of electric motors driven by energy generated at establishments reported.....	12,755	2,321	1,758	...	...	310	...	...	(NA)	(NA)
45 Energy used.....million kwh equivalent..	1,128	122	477	37	73	(NA)	(NA)	(NA)	(NA)	(NA)
46 Coal.....1,000 short tons..	3	6	1	1	9	6	(NA)	(NA)	(NA)	(NA)
47 Fuel oil.....1,000 barrels..	230	18	76	1	...	...	(NA)	(NA)	(NA)	(NA)
48 Natural gas.....million cu. ft..	683	64	633	64	...	...	(NA)	(NA)	(NA)	(NA)
49 Electric energy purchased.....million kwh..	307	64	79	4	4	(NA)	(NA)	(NA)	(NA)	(NA)
50 Electric energy generated and used.....do....	23	2	2	...	...	(NA)	(NA)	(NA)	(NA)	(NA)
51 Water intake, including mine water used.....million gallons..	7,661	(NA)	2,834	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
52 Per production worker.....do....	1.12	(NA)	1.25	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)

See footnotes on page 4.

THE UNITED STATES: 1954, 1939, 1929, 1919, 1909, 1902, 1889, 1880, 1870, 1860, AND 1850

size of establishments included for each year, see INTRODUCTION)

Tungsten ores industry ¹					Molybdenum ores and ferro-alloy ores except vanadium, not elsewhere classified, industries												
					Total		Chromium ores subindustry ²						Other subindustries ³				
1954	1939	1929 ⁴	1909	1902	1954	1939 ⁴	1954	1939 ⁴ 5	1919	1889	1860	1850	1954	1939	1889	1870	
500	39	(NA)	34	4	155	17	143	3	(NA)	(NA)	(NA)	(NA)	12	14	(NA)	(NA)	1
549	(NA)	12	34	(NA)	170	(NA)	158	(NA)	15	(NA)	1	4	12	(NA)	(NA)	1	2
524	53	13	200	4	158	16	146	2	16	6	(NA)	(NA)	12	14	(NA)	(NA)	3
171	32	(NA)	(NA)	(NA)	63	7	58	1	1	(NA)	(NA)	(NA)	5	6	(NA)	(NA)	4
xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	5
724	3	1	(NA)	(8)	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	6
7915	188	(NA)	(NA)	(NA)	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	7
60,737	(NA)	(NA)	(NA)	(NA)	60,536	(NA)	7,398	(NA)	(NA)	(NA)	(NA)	(NA)	53,138	(NA)	(NA)	(NA)	8
(9)	3,354	734	563	106	(9)	15,458	(9)	47	106	1030	1015	1024	53,138	15,411	1040	1024	9
60,222	3,265	734	563	6	56,714	15,426	7,398	47	106	30	15	24	49,316	15,379	40	24	10
515	89	...	...	(NA)	3,822	32	...	...	...	(NA)	(NA)	(NA)	3,822	32	(NA)	(NA)	11
40,744	2,427	540	412	6	48,537	13,271	5,617	27	67	26	15	18	42,920	13,244	9	22	12
3,701	875	220	246	2	2,730	1,113	762	40	60	30	32	47	1,968	1,073	187	48	13
2,635	701	186	181	2	1,937	963	454	31	31	1230	...	32	1,483	932	12181	...	14
352	143	31	26	...	550	141	71	8	5	...	...	47	479	133	6	48	15
714	31	3	39	(NA)	243	9	237	1	24	...	...	...	6	8	...	...	16
634	22	...	22	(NA)	194	5	193	1	12	...	...	...	1	4	...	...	17
6,327	1,639	(NA)	(NA)	(NA)	4,502	2,088	1,015	59	(NA)	...	...	...	3,487	2,029	...	...	18
4,825	131,137	(NA)	(NA)	(NA)	2,983	131,279	769	28	(NA)	...	...	...	2,214	131,251	...	...	19
3,683	13846	(NA)	(NA)	(NA)	2,122	131,116	453	6	(NA)	...	...	...	1,669	131,110	...	...	20
451	1377	(NA)	(NA)	(NA)	139	1327	94	22	(NA)	(NA)	(NA)	(NA)	45	135	(NA)	(NA)	21
691	13189	(NA)	(NA)	(NA)	722	1395	222	...	(NA)	...	...	...	500	1395	...	...	22
1,502	13496	(NA)	(NA)	(NA)	1,519	13805	246	31	(NA)	...	...	...	1,273	13774	...	...	23
651	(NA)	(NA)	(NA)	(NA)	119	(NA)	34	(NA)	(NA)	...	...	...	85	(NA)	...	...	24
37,515	142,295	14552	421	1	29,804	144,247	4,897	1474	89	1410	146	1416	24,907	144,173	14125	148	25
13,148	1,114	297	221	1	10,539	1,499	2,216	42	45	6	...	6	8,323	1,457	84	...	26
1,610	254	61	49	...	3,946	561	397	12	5	...	...	10	3,549	549	10	6	27
10,891	(NA)	(NA)	...	(NA)	461	(NA)	461	(NA)	...	(NA)	(NA)	(NA)	...	(NA)	(NA)	(NA)	28
8,295	659	127	101	...	9,853	1,736	1,151	11	13	...	...	6	8,702	1,725	...	...	29
933	99	10	...	...	357	44	123	3	2	...	...	...	234	41	...	...	30
753	114	53	9	...	1,289	364	113	6	...	...	...	...	1,176	358	...	...	31
1,885	55	4	41	...	3,359	43	436	...	24	(NA)	(NA)	(NA)	2,923	43	2	(NA)	32
3,562	(NA)	14	(NA)	(NA)	2,609	(NA)	331	(NA)	(NA)	...	...	...	2,278	(NA)	...	...	33
6,326	(NA)	(NA)	(NA)	(NA)	5,929	(NA)	834	(NA)	(NA)	...	...	...	5,095	(NA)	...	...	34
2,168	(NA)	92	(NA)	(NA)	410	(NA)	206	(NA)	3	(NA)	(NA)	(NA)	204	(NA)	(NA)	(NA)	35
885	163	(NA)	(NA)	(NA)	1,672	42	228	7	(NA)	...	...	...	1,444	...	...	...	36
382	...	(NA)	(NA)	(NA)	1,662	...	79	...	...	...	...	...	1,583	35	...	...	37
2,224	205	(NA)	(NA)	(NA)	1,987	102	123	25	(NA)	...	...	...	1,864	77	...	...	38
667	104	(NA)	(NA)	(NA)	198	40	198	2	(NA)	...	...	...	...	38	...	...	39
156,190	15,335	3,398	613	280	106,519	36,045	27,300	686	136	...	...	...	79,219	35,359	...	130	40
59	22	18	3	(17)	55	37	(17)	22	(17)	...	...	...	53	38	...	(NA)	41
106,231	8,261	1,090	548	220	34,007	3,049	22,477	461	136	...	...	...	11,530	2,588	...	130	42
49,959	7,074	2,308	65	60	72,512	32,996	4,823	225	...	...	...	...	67,689	32,771	...	...	43
9,324	1,966	648	45	...	1,673	355	462	...	...	(NA)	(NA)	(NA)	1,211	355	(NA)	...	44
371	41	(NA)	(NA)	(NA)	280	44	47	1	(NA)	...	...	...	233	43	(NA)	...	45
...	...	(NA)	(NA)	(NA)	2	5	...	...	...	...	...	...	2	5	...	...	46
124	15	(NA)	(NA)	(NA)	30	2	8	...	...	...	...	...	22	2	...	...	47
46	...	(NA)	(NA)	(NA)	4	...	4	...	...	...	...	...	...	...	...	...	48
61	8	(NA)	(NA)	(NA)	167	52	13	...	(NA)	...	...	...	154	52	...	(NA)	49
20	2	(NA)	(NA)	(NA)	1	...	...	...	...	...	...	...	1	...	...	...	50
3,380	(NA)	(NA)	(NA)	(NA)	1,447	(NA)	183	(NA)	(NA)	...	...	...	1,264	(NA)	(NA)	(NA)	51
1.28	(NA)	(NA)	(NA)	(NA)	0.75	(NA)	(17)	(NA)	(NA)	(NA)	(NA)	(NA)	0.85	(NA)	(NA)	(NA)	52

Footnotes for Table 1, Bulletin MI-101:

NA Not available.

¹For 1919, 6 tungsten ores establishments were reported. Separate statistics for these operations are not available.²For 1909, 3 chromium ores establishments were reported, and for 1902, 1 chromium ores mine. Separate statistics for these operations are not available.³For 1954, represents 3 molybdenum ores establishments (1 each in Colorado, New Mexico, and Washington), 1 cobalt ores establishment (Idaho), 3 nickel ores establishments (1 each in Minnesota, Oregon, and California), and 5 columbium ores establishments (1 each in South Dakota, Idaho, and Colorado, and 2 in New Mexico). For 1939, represents molybdenum ores only; no mines were classified in the cobalt ores, nickel ores, or columbium ores subindustries in 1939. For 1889, represents nickel and cobalt ores establishments, and for 1870, represents 1 nickel ores establishment. In addition, molybdenum ores establishments were reported as follows: 1929, 2; 1919, 4; 1909, 4; 1902, 1; cobalt establishments, 1919, 1; and cobalt and nickel establishments, 1909, 1; 1902, 2. Separate statistics are not available for the years not shown in the table above.⁴Excludes nonproducing operations for which separate figures are not available, as follows: 1939, 2 manganese ores mines and 1 chromite ores mine; 1929, 3 manganese ores and 10 tungsten ores establishments; 1919, 2 manganese ores establishments; and 1902, 3 manganese ores mines. It is not clear whether data for nonproducing operations in 1889 and earlier years were included in the statistics shown for those years.⁵Except for number of companies, mines, and plants, includes data for 1 antimony mine reporting production of 31 long tons of antimony ores containing 32,206 pounds of antimony.⁶For 1954, represents manganese ores and concentrates of all grades (exclusive of ores valued chiefly for their iron content) shipped from manganese ores mines and beneficiating plants. It contains duplication since it includes shipments of milling ores to other plants for beneficiation as well as shipments of concentrates produced from these ores. For this reason and also because the 1954 figure includes shipments to Government depots of low grade ores requiring concentration, it is not directly comparable with the figures shown for 1939 and earlier years which represent the production of merchantable manganese ores and concentrates. Separate figures on shipments of milling ores to other plants for beneficiation and of low-grade ores to Government-buying depots are not available for 1954. The duplication in the 1954 figures can be approximately eliminated and, to that extent, greater comparability with earlier years can be obtained by subtracting from the figure shown for 1954 the manganese ores reported received at beneficiating plants from other establishments (about 375,000 long tons).⁷For 1954, includes shipments of low-grade concentrates to up-grading plants as well as shipments of high-grade concentrates produced from these low-grade concentrates. Figures for 1954, therefore, contain duplication and are not directly comparable with figures for 1939 and earlier years which represent the production of high-grade concentrates. Separate figures on shipments of low-grade concentrates are not available for 1954. It is estimated that shipments of high-grade concentrates during 1954 by the tungsten ores industry contained approximately 790,000 units of WO₃. This estimate was derived by subtracting from the total number of WO₃ units contained in ores, tailings, and concentrates shipped by the industry, the number of WO₃ units contained in materials received for up-grading at tungsten treatment plants. (A unit of WO₃ represents 20 pounds of tungsten trioxide.)⁸Less than 500 tons.⁹Total value of shipments for 1954 contains duplication since it includes the value of milling ores, tailings, and low-grade concentrates shipped for treatment to other plants in the industry. Since separate figures on the value of such shipments are not available, the value of net shipments, excluding this duplication, cannot be computed. The estimated net value of shipments for the industry can be approximated for 1954 by subtracting from the total value of shipments the figure shown for cost of minerals received for treatment. Figures for 1939 and earlier years represent net production and do not contain the duplication referred to above.¹⁰Excludes the value of secondary products and services, if any.¹¹Figures for average number employed were reduced to a 300-day basis for establishments which operated for a shorter period.¹²Represents the average number employed during the time the mines were active.¹³Excludes man-hours worked on inactive days, which are not available by department. For mine departments, also excluded are man-hours for non-producing operations; these are not available by mine department.¹⁴Excludes the cost of minerals received from other establishments for preparation. For 1889 and earlier years, excludes other expenses specified as not available.¹⁵Not entirely comparable with figures for other years. See footnote 11 above.¹⁶Less than 0.5.¹⁷Not computed since the number of proprietors and firm members performing manual labor exceeds one-third of the number of production and development workers. This was presumed to be the case for the tungsten ores industry in 1902, although the number of proprietors is not available, since only a total of 2 production workers was reported for that industry in 1902.

Table 2.—COMPARATIVE STATISTICS FOR THE MANGANESE ORES AND TUNGSTEN ORES INDUSTRIES, BY STATES: 1954 AND 1939

(For explanation of column captions, see INTRODUCTION. For 1939, excludes nonproducing operations except for the United States totals for the tungsten ores industry¹)

Industry, State, and year	Number of mines	Value of shipments (\$1,000) ²	Number of employees		Designated principal expenses (\$1,000)						Aggregate horse-power rating of power equipment
			Production and development workers	All other employees	Wages of production and development workers	Salaries of all other employees	Supplies and minerals received for preparation ³	Fuel	Purchased electric energy	Contract work	
MANGANESE ORES INDUSTRY											
United States, total.....1954..	360	32,398	2,266	338	7,643	1,649	10,469	721	477	3,573	105,611
.....1939..	34	945	504	41	483	83	161	37	40	...	5,035
Montana.....1954..	30	10,964	880	170	3,463	824	5,155	178	220	625	33,890
.....1939..	15	544	197	23	291	62	129	19	28	...	3,546
Pennsylvania, Missouri, Virginia, and Georgia ⁴.....1954..	14	3,031	332	31	729	92	1,189	⁵ 110	(⁵)	224	12,922
.....1939..	9	120	69	4	43	3	7	10	2	...	829
Other States ⁶.....1954..	316	18,403	1,054	137	3,451	733	4,125	⁵ 690	(⁵)	2,724	58,799
.....1939..	10	281	238	14	149	18	25	8	10	...	660
TUNGSTEN ORES INDUSTRY											
United States, total.....1954..	524	60,737	2,635	352	13,148	1,610	19,186	933	753	1,885	156,190
.....1939..	49	3,354	690	134	1,101	242	648	98	114	43	14,660
Colorado.....1954..	54	1,918	99	13	360	46	852	22	26	46	6,594
.....1939..	20	471	97	14	131	40	94	3	21	1	1,704
Nevada.....1954..	165	20,375	1,024	99	5,432	563	4,622	406	280	897	60,073
.....1939..	10	1,307	233	17	397	26	280	42	36	2	4,773
California.....1954..	198	19,072	657	171	3,726	634	8,317	356	209	584	60,835
.....1939..	9	1,128	231	82	400	147	204	29	57	40	5,996
Other States ⁷.....1954..	107	19,372	855	69	3,630	367	5,395	149	238	358	28,688
.....1939..	10	448	129	21	173	29	70	24	...	...	2,187

¹See table 1, footnote 4. The nonproducing tungsten ores operations in 1939 were located as follows: 2 in Colorado, 1 in Nevada, and 1 in California.²Represents value of net production for 1939. See table 1, footnote 9.³The cost of minerals received for preparation is excluded for 1939.⁴Virginia and Georgia for 1939. There were no manganese ores establishments in Pennsylvania or Missouri in 1939.⁵Cost of purchased electric energy is combined with cost of fuel.⁶For both years, includes Tennessee, Arkansas, Colorado, New Mexico, and California. In addition, includes Idaho, Arizona, Utah, Nevada, and Washington for 1954, and Massachusetts, North Carolina, and Alabama for 1939.⁷For both years, includes Idaho, New Mexico, Arizona, Utah, and Washington, and, in addition for 1954, North Carolina and Montana.

Table 3A.—DETAILED STATISTICS FOR THE MANGANESE ORES INDUSTRY BY GEOGRAPHIC DIVISIONS AND STATES: 1954

(For explanation of line captions, see INTRODUCTION)

Item	United States, total	East and South				Mountain						Pacific ³ (Washington and California)
		Total	Tennessee	Arkansas	Other States ¹	Total	Montana	New Mexico	Arizona	Nevada	Other States ²	
Number of operating companies.....	319	40	9	17	15	224	26	49	121	17	13	59
Number of establishments.....	367	43	9	19	15	257	31	54	141	17	14	67
Number of mines.....	360	41	8	19	14	253	30	54	139	16	14	66
Number of beneficiating plants.....	63	32	9	12	11	23	3	5	13	2	...	8
Crude ore mined, total.....1,000 long tons..	1,574	451	158	43	250	1,067	341	211	187	322	6	56
From underground operations.....do....	522	5	...	42	250	489	341	49	91	3	5	28
From open-pit operations.....do....	1,052	446	158	...	...	578	...	162	96	319	1	28
Crude manganese ores beneficiated.....do....	1,238	364	105	36	223	851	322	182	86	261	...	23
Shipments of manganese agglomerates containing 35 percent or more manganese.....do....	130	52	...	...	68	160	398	65	11	92	5	6
Shipments of manganese ores and concentrates containing 35 percent or more manganese.....do....	88											
Shipments of manganese ores and concentrates containing less than 35 percent manganese.....do....	612	42	...	15	...	534	...	122	1	...	...	36
Value of shipments, total.....\$1,000..	32,398	5,059	1,011	1,017	3,031	25,854	10,964	2,232	4,031	8,439	188	1,485
Manganese agglomerates containing 35 percent or more manganese.....do....	10,399	4,899	...	...	3,031	14,177	9,867	488	629	8,385	188	481
Manganese ores and concentrates containing less than 35 percent manganese.....do....	9,158											
Other products and services.....do....	11,741	160	...	...	...	10,578	1,744	3,400	54	...	...	1,003
Value added in mining.....do....	18,118	3,483	794	881	1,808	13,513	4,957	1,614	2,519	4,220	203	1,122
Number of persons engaged, total.....	3,062	698	164	167	367	2,171	1,085	279	407	356	44	193
Production and development workers.....	2,266	627	151	144	332	1,532	880	206	196	229	21	107
All other employees.....	338	33	1	1	31	294	170	15	5	102	2	11
Proprietors and firm members.....	458	38	12	22	4	345	35	58	206	25	21	75
Performing manual labor.....	386	25	7	16	2	290	31	53	166	24	16	71
Man-hours worked by production and development workers, total.....1,000..	4,293	1,054	299	217	538	3,004	1,633	463	365	502	41	235
At mines, total.....do....	2,973	649	151	161	337	2,124	1,335	378	317	53	41	200
Underground.....do....	1,677	28	...	12	16	1,590	1,049	272	194	42	33	59
Open-pit.....do....	894	574	141	139	294	196	...	90	92	...	...	124
Surface (including mine shops and yards).....do....	402	47	10	10	27	338	286	16	31	11	8	17
At beneficiating plants.....do....	1,320	405	148	56	201	880	298	85	48	449	...	35
Man-hours spent on development and exploration work (included above).....do....	260	74	3	14	57	145	52	44	28	14	7	41
Principal expenses designated below, total.....\$1,000..	24,532	3,501	663	494	2,344	20,062	10,465	1,280	2,291	5,938	88	969
Wages of production and development workers.....do....	7,643	1,363	393	241	729	5,893	3,463	649	639	1,081	61	387
Salaries of all other employees.....do....	1,649	96	2	2	92	1,508	824	63	12	606	3	45
Ores received for beneficiation.....do....	5,382	1,429	138	102	1,189	4,492	5,155	164	361	3,259	...	91
Supplies.....do....	5,087											
Fuel.....do....	721	240	55	41	110	496	178	40	102	168	8	48
Purchased electric energy.....do....	477											
Contract work.....do....	3,573	373	41	108	224	2,802	625	348	1,160	663	6	398
Purchased machinery installed.....do....	2,304	1,346	216	240	890	748	81	206	325	94	42	210
Capital expenditures, total.....do....	3,264	1,812	267	355	1,190	1,068	252	156	453	126	81	384
Development and exploration of mineral property.....do....	607	151	...	...	94	296	33	43	144	...	...	160
Beneficiating plant construction.....do....	546	365	91	154	213	177	85	6	86	42	40	4
Other construction.....do....	162	102	...	...	66	30	15	5	4	...	...	30
New machinery and equipment.....do....	1,366	956	163	104	689	351	95	32	123	81	20	59
Used plant and equipment.....do....	583	238	13	97	128	214	24	70	96	3	21	131
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....do....	105,611	23,850	5,767	5,161	12,922	72,107	33,890	6,349	20,510	9,855	1,503	9,654
Per production worker.....do....	47	38	38	36	39	47	39	31	(⁵)	43	(⁵)	(⁵)
Prime movers.....do....	64,966	20,880	4,704	5,111	11,065	34,722	3,861	5,991	19,685	3,682	1,503	9,364
Electric motors driven by purchased energy.....do....	40,645	2,970	1,063	50	1,857	37,385	30,029	358	825	6,173	...	290
Horsepower rating of electric motors driven by energy generated at establishments reported.....do....	1,758	235	(D)	...	(D)	1,151	...	(D)	(D)	...	...	372
Energy used.....million kwh equivalent..	477	54	18	8	28	411	245	11	33	119	3	12
Coal.....do....1,000 short tons..	1	...	...	...	...	1	...	...	...	...	...	...
Fuel oil.....do....1,000 barrels..	76	15	5	2	8	58	4	3	4	46	1	3
Natural gas.....do....million cu. ft..	633	...	...	...	...	629	(D)	...	(D)	...	...	4
Electric energy purchased.....million kwh..	79	3	2	...	1	76	36	1	2	37	...	...
Electric energy generated and used.....do....	2	...	...	...	...	1	...	...	1	...	...	1
Water intake, including mine water used.....million gallons..	2,834	767	444	158	165	2,008	1,065	154	17	772	...	59
Per production worker.....do....	1.25	1.22	2.94	1.10	0.50	1.31	1.21	0.75	(⁵)	3.37	...	(⁵)

(D) Withheld to avoid approximately disclosing figures for individual companies. ¹Pennsylvania, 1 establishment; Missouri, 1 establishment; Virginia, 12 establishments; and Georgia, 1 establishment. ²Idaho, 2 establishments; Colorado, 1 establishment; and Utah, 11 establishments. ³Washington, 1 establishment; and California, 66 establishments. ⁴Contains duplication. (See table 1, footnotes 6 and 9.) The adjustment to derive net figures described in the footnotes to table 1 is appropriate for the State figures only to the extent that no significant quantities of materials received for treatment in one State were shipped from establishments in other States. ⁵Not computed since the number of proprietors and firm members performing manual labor exceeds one-third the number of production and development workers. ⁶Includes manufactured or mixed gas, amounting to less than 0.5 percent of the figure shown.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 3B.—DETAILED STATISTICS FOR THE TUNGSTEN ORES INDUSTRY BY GEOGRAPHIC DIVISIONS AND STATES: 1954

(For explanation of line captions, see INTRODUCTION)

Item	United States, total ¹	South Atlantic (North Carolina)	Mountain						Pacific	
			Total	Montana	Colorado	Arizona	Nevada	Other States ²	Total ³	California
Number of operating companies.....	500	3	298	15	49	49	157	32	202	197
Number of establishments.....	549	3	331	15	58	55	168	35	215	210
Number of mines.....	524	3	318	15	54	54	165	30	203	198
Number of treatment plants.....	171	1	92	4	19	16	39	14	78	74
Crude ore mined, total.....1,000 short tons..	1,938	289	1,131	133	66	32	823	77	518	508
From underground operations.....do....	1,408	289	760	14	13	13	659	61	359	357
From open-pit operations.....do....	530	...	371	119	53	19	164	16	159	151
Units of WO ₃ contained in total crude ore mined.....1,000..	994	174	554	59	26	11	414	44	266	261
Crude ore, tailings, and concentrates treated.....1,000 short tons..	2,056	288	1,229	227	44	30	818	110	539	536
Units of WO ₃ contained.....1,000..	1,136	173	629	60	31	10	390	138	334	332
Concentrates shipped ⁴.....1,000 short tons..	24	3	17	4	(D)	(⁵)	10	(D)	4	4
Units of WO ₃ contained ⁴.....1,000..	915	152	488	42	(D)	7	307	(D)	275	274
Value of shipments, total ⁴.....\$1,000..	60,737	9,595	32,010	2,237	1,918	479	20,375	7,001	19,132	19,072
Tungsten tailings.....do....	91	...	...	...	...	...	...	...	...	...
Tungsten milling ore.....do....	4,880	...	3,298	35	1,918	(D)	2,399	...	1,673	1,673
Tungsten concentrates ⁶.....do....	55,251	9,595	28,514	2,202	407	17,897	7,001	...	17,142	17,082
Other products and services.....do....	515	...	198	...	...	(D)	79	...	317	317
Value added in mining.....\$1,000..	40,744	8,904	21,614	1,857	1,122	581	15,494	2,560	10,226	10,180
Number of persons engaged, total.....	3,701	519	2,021	93	197	152	1,338	241	1,161	1,133
Production and development workers.....	2,635	501	1,454	73	99	92	1,024	180	680	657
All other employees.....	352	16	163	20	85	60	215	37	173	171
Proprietors and firm members.....	714	2	404	19	81	52	192	22	308	305
Performing manual labor.....	634	2	366	...	...	...	...	...	266	265
Man-hours worked by production and development workers, total.....1,000..	6,327	1,193	3,488	148	202	209	2,528	401	1,646	1,608
At mines, total.....do....	4,825	1,080	2,612	79	147	138	2,027	221	1,133	1,117
Underground.....do....	3,683	989	1,891	15	122	126	1,469	159	803	794
Open-pit.....do....	451	...	330	44	9	5	241	31	121	116
Surface (including mine shops and yards).....do....	691	91	391	20	16	7	317	31	209	207
At treatment plants.....do....	1,502	113	876	69	55	71	501	180	513	491
Man-hours spent on development and exploration work (included above).....do....	651	...	494	19	35	111	261	68	157	150
Principal expenses designated below, total.....\$1,000..	37,515	2,927	20,654	844	1,352	594	12,200	5,664	13,934	13,826
Wages of production and development workers.....do....	13,148	2,096	7,255	374	360	370	5,432	795	3,797	3,726
Salaries of all other employees.....do....	1,610	121	848	...	46	...	563	163	641	634
Ores and concentrates received for treatment.....do....	10,891	...	6,562	270	852	48	1,792	3,960	4,329	4,329
Supplies.....do....	68,295	484	63,810	...	...	693	62,830	527	4,001	3,988
Fuel.....do....	933	27	540	30	22	18	406	64	366	356
Purchased electric energy.....do....	753	128	415	25	26	8	280	76	210	209
Contract work.....do....	1,885	71	1,224	145	46	57	897	79	590	584
Purchased machinery installed.....do....	3,562	453	2,052	197	70	114	1,426	245	1,057	1,023
Capital expenditures, total.....do....	6,326	472	4,207	287	220	440	2,750	510	1,647	1,597
Development and exploration of mineral property.....do....	2,168	...	1,693	65	87	166	1,145	230	475	459
Treatment plant construction.....do....	885	19	642	21	65	131	376	49	224	224
Other construction.....do....	382	...	231	4	2	51	159	15	151	150
New machinery and equipment.....do....	2,224	453	1,199	189	22	77	751	160	572	543
Used plant and equipment.....do....	667	...	442	8	44	15	319	56	225	221
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	156,190	5,623	88,837	5,453	6,594	6,737	60,073	9,980	61,730	60,835
Per production worker.....	59	11	61	(D)	(⁷)	(D)	59	55	(⁷)	(⁷)
Prime movers.....	106,231	1,748	63,340	4,412	5,182	5,462	40,376	7,908	41,143	40,316
Electric motors driven by purchased energy.....	49,959	3,875	25,497	1,041	1,412	1,275	19,697	2,072	20,587	20,519
Horsepower rating of electric motors driven by energy generated at establishments reported.....	9,324	...	6,737	26	...	...	6,272	439	2,587	2,587
Energy used.....million kwh equivalent..	371	20	194	9	8	5	140	32	157	155
Fuel oil.....1,000 barrels..	124	2	55	2	1	...	49	3	67	67
Natural gas.....million cu. ft..	46	...	45	...	2	...	...	43	1	1
Electric energy purchased.....million kwh..	61	13	29	2	1	1	21	4	19	19
Electric energy generated and used.....do....	20	...	16	...	...	...	16	...	4	4
Water intake, including mine water used.....million gallons..	3,380	598	1,935	240	192	28	1,211	264	847	845
Per production worker.....do....	1.28	1.19	1.33	(D)	(⁷)	(D)	1.18	1.47	(⁷)	(⁷)

D Withheld to avoid disclosing figures for individual companies.

¹In addition, one nonproducing establishment in Alaska was reported.²Idaho, 12 establishments; New Mexico, 2 establishments; and Utah, 21 establishments.³Washington, 5 establishments, in addition to California.⁴Contains duplication. (See table 1, footnotes 7 and 9.) The adjustment to derive net figures described in the footnotes to table 1 is appropriate for the State figures only to the extent that no significant quantities of materials received for treatment in one State were shipped from establishments in other States.⁵Less than 500 tons.⁶Includes the cost of materials purchased for resale without further processing, amounting to less than one percent of the United States total cost of supplies shown.⁷Not computed since the number of proprietors and firm members performing manual labor exceeds one-third the number of production and development workers.

Table 3C.—DETAILED STATISTICS FOR THE CHROMIUM ORES SUBINDUSTRY, BY STATES: 1954

(For explanation of line captions, see INTRODUCTION)

Item	United States, total ¹	California	Other States ²
Number of operating companies.....	143	104	39
Number of establishments.....	158	115	43
Number of mines.....	146	111	35
Number of treatment plants.....	58	33	25
Ores shipped:			
Containing over 45% Cr ₂ O ₃.....1,000 short tons..	7	6	1
Containing 45% or less Cr ₂ O ₃.....do....	28	27	1
Value of shipments, total ³.....\$1,000..	7,398	2,634	4,764
Ores containing over 45% Cr ₂ O ₃.....do....	690	592	98
Ores containing 45% or less Cr ₂ O ₃.....do....	659	596	63
Chromium concentrates.....do....	6,049	1,446	4,603
Value added in mining.....do....	5,617	1,788	3,829
Number of persons engaged, total.....	762	332	430
Production and development workers.....	454	131	323
All other employees.....	71	20	51
Proprietors and firm members.....	237	181	56
Performing manual labor.....	193	151	42
Man-hours worked by production and development workers, total.....1,000..	1,015	259	756
At mines, total.....do....	769	148	621
Underground.....do....	453	58	395
Open-pit.....do....	94	77	17
Surface (including mine shops and yards).....do....	222	13	209
At treatment plants.....do....	246	111	135
Man-hours spent on development and exploration work (included above).....do....	34	21	13
Principal expenses designated below, total.....\$1,000..	4,897	1,733	3,164
Wages of production and development workers.....do....	2,216	523	1,693
Salaries of all other employees.....do....	397	63	334
Ores received for treatment.....do....	461	400	61
Supplies.....do....	1,151	341	810
Fuel.....do....	123	68	55
Purchased electric energy.....do....	113	16	97
Contract work.....do....	436	322	114
Purchased machinery installed.....do....	331	257	74
Capital expenditures, total.....do....	834	558	276
Development and exploration of mineral property.....do....	206	145	61
Treatment plant construction.....do....	228	146	82
Other construction.....do....	79	14	65
New machinery and equipment.....do....	123	110	13
Used plant and equipment.....do....	198	143	55
Horsepower rating of power equipment, (prime movers and electric motors driven by purchased energy), total.....	27,300	13,566	13,734
Per production worker.....do....	(⁴)	(⁴)	43
Prime movers.....do....	22,477	12,779	9,698
Electric motors driven by purchased energy.....do....	4,823	787	4,036
Horsepower rating of electric motors driven by energy generated at establishments reported.....	462	200	262
Energy used.....million kwh equivalent..	47	19	28
Fuel oil.....1,000 barrels..	8	2	6
Natural gas.....million cu. ft..	4	4	...
Electric energy purchased.....million kwh..	13	1	12
Water intake, including mine water used.....million gallons..	183	87	96
Per production worker.....do....	(⁴)	(⁴)	0.30

¹In addition, 2 establishments in Alaska were reported.²Montana, 1 establishment, and Oregon, 42 establishments.³Contains duplication. (See table 1, footnote 9.) The adjustment to derive net figures described in the footnotes to table 1 is appropriate for the State figures only to the extent that no significant quantities of materials received for treatment in one State were shipped from establishments in other States.⁴Not computed since the number of proprietors and firm members performing manual labor exceeds one-third the number of production and development workers.

MINERAL INDUSTRIES--INDUSTRY STATISTICS

Table 4A.--DETAILED STATISTICS FOR THE MANGANESE ORES INDUSTRY IN THE UNITED STATES, BY TYPE OF OPERATION: 1954

Part I.—Establishments classified by principal mining method

(For explanation of line caption, see INTRODUCTION)

Item	All types of establishments	Producing establishments											Beneficiating plants only ³	Nonproducing establishments
		Open-pit mines		Combination open-pit and underground mines		Underground mines, by principal mining method								
						Total		Open stoping	Shrinkage stoping	Square-setting	Cut-and-fill stoping	Principal method not specified and other ²		
		Without beneficiating plant ¹	With beneficiating plant	Without beneficiating plant ¹	With beneficiating plant	Without beneficiating plant ¹	With beneficiating plant							
Number of operating companies.....	319	116	29	16	5	144	8	35	9	11	5	92	8	14
Number of establishments.....	367	124	31	17	5	160	8	35	9	13	5	106	8	14
Number of mines.....	360	124	31	17	5	160	8	35	9	13	5	106	1	14
Number of beneficiating plants.....	63	5	31	2	5	1	8	3	1	2	...	3	8	
Crude ore mined....1,000 long tons..	1,574	110	864	427	4110	400	63	65	8	339	2	49	...	...
Value of shipments.....\$1,000..	32,398	2,021	10,556	982	1,133	7,580	2,112	1,537	281	6,383	60	1,431	8,014	...
Value added in mining.....do....	18,118	1,212	6,819	737	820	5,660	1,542	993	225	4,682	57	1,245	1,230	98
Number of persons engaged, total....	53,062	271	820	86	165	1,131	184	121	43	876	10	265	332	55
Production and development workers.....	2,266	95	704	61	146	809	159	64	25	757	4	118	249	43
All other employees.....	5338	6	85	1	17	104	20	5	3	111	1	4	80	7
Proprietors and firm members.....	458	170	31	24	2	218	5	52	15	8	5	143	3	5
Performing manual labor.....	386	151	20	16	2	187	3	33	11	6	5	135	3	4
Man-hours worked by production and development workers, total...1,000..	4,293	187	1,303	119	361	1,434	338	123	46	1,404	4	195	488	63
At mines, total.....do....	2,973	186	629	119	290	1,434	252	119	46	1,332	4	185	...	63
Underground and open-pit.....do....	2,571	180	600	4102	4288	1,170	190	108	45	1,046	4	157	...	41
Surface (including mine shops and yards).....do....	402	6	29	17	2	264	62	11	1	286	...	28	...	22
At beneficiating plants.....do....	1,320	1	674	...	71	...	86	4	...	72	...	10	488	...
Man-hours spent on development and exploration work (included above).....do....	260	24	35	17	20	34	86	8	13	48	3	48	...	44
Crude ore mined per man-hour at mines..... long tons..	0.53	(⁶)	1.37	0.23	0.38	0.28	0.25	(⁶)	(⁶)	0.25	(⁶)	(⁶)	xxx	xxx
Principal expenses designated below, total.....\$1,000..	524,532	1,148	6,458	468	870	5,479	1,472	832	129	5,261	52	677	8,400	173
Wages of production and development workers.....do....	7,643	285	1,964	202	479	2,933	659	228	69	2,987	9	299	1,024	97
Salaries of all other employees.....do....	51,649	20	495	2	64	452	130	5	2	554	5	16	405	17
Ores received for beneficiation.....do....	5,382	...	15	...	...	13	...	...	...	13	...	...	5,354	...
Supplies.....do....	5,087	75	2,398	76	121	1,000	101	54	29	879	7	132	1,280	36
Fuel.....do....	721	49	293	20	12	126	47	28	11	68	2	64	161	13
Purchased electric energy.....do....	477	...	163	...	17	94	51	...	...	144	1	...	152	...
Contract work.....do....	3,573	719	1,130	168	177	874	471	517	18	616	28	166	24	10
Purchased machinery installed.....do....	2,304	264	1,159	99	108	226	93	56	41	72	8	142	224	131
Capital expenditures, total.....do....	3,264	298	1,421	118	122	400	206	111	43	91	43	318	411	288
Development and exploration of mineral property.....do....	607	55	78	32	35	203	94	55	15	13	34	180	1	109
Beneficiating plant construction.....do....	546	1	342	6	37	...	26	...	...	17	...	9	99	35
Other construction.....do....	162	30	68	...	...	21	7	4	1	14	1	8	32	4
New machinery and equipment.....do....	1,366	101	709	53	47	88	15	19	16	25	6	37	253	100
Used plant and equipment.....do....	583	111	224	27	3	88	64	33	11	22	2	84	26	40
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	105,611	11,350	24,630	9,422	5,246	35,741	4,931	4,561	1,395	25,187	914	8,615	11,064	3,227
Per production worker.....	47	(⁶)	35	154	36	44	31	(⁶)	(⁶)	33	(⁶)	(⁶)	44	75
Prime movers.....	64,966	11,350	17,967	9,417	4,525	14,997	2,334	4,561	1,395	1,931	874	8,570	1,636	2,740
Electric motors driven by purchased energy.....	40,645	...	6,663	5	721	20,744	2,597	...	...	23,256	40	45	9,428	487
Horsepower rating of electric motors driven by energy generated at establishments reported.....	1,758	190	335	747	281	80	5	80	...	...	...	5	120	...
Energy used...million kwh equivalent..	477	12	128	7	5	78	25	9	2	73	1	18	219	3
Coal.....1,000 short tons..	1	...	...	...	...	...	1	...	...	1	...	...	...	...
Fuel oil.....1,000 barrels..	76	3	46	...	1	5	5	2	...	4	...	4	16	...
Natural gas.....million cu. ft..	633	2	...	9	4	110	...	...	...	110	...	...	508	...
Electric energy purchased.....million kwh..	79	...	27	...	1	16	6	...	...	22	...	...	29	...
Electric energy generated and used.....do....	2	...	...	1	1	...	...	...	...	...	...	...	...	...
Water intake, including mine water used.....million gallons..	2,834	...	1,472	10	75	9	130	4	1	132	...	2	1,119	19
Per production worker.....do....	1.25	...	2.09	0.16	0.51	0.01	0.82	(⁶)	(⁶)	0.17	...	(⁶)	4.49	0.44

See footnotes at end of table 4A, part II.

Table 4A.--DETAILED STATISTICS FOR THE MANGANESE ORES INDUSTRY IN THE UNITED STATES, BY TYPE OF OPERATION--Continued

Part II.--Producing establishments classified by principal beneficiation method

(For explanation of line captions, see INTRODUCTION)

Item	All produc- ing estab- lishments	Mines only ¹	Producing beneficiating plants (with or without mines)					
			Total	Principal beneficiation method				
				Log washing	Jigging	Heavy density separation	Agglom- eration ⁷	Other treatment methods ⁸
Number of operating companies.....	305	269	49	14	14	6	4	12
Number of establishments.....	353	301	52	14	15	6	4	13
Number of mines.....	346	301	45	14	12	5	3	11
Number of beneficiating plants.....	60	8	52	14	15	6	4	13
Crude manganese ores beneficiated.....1,000 long tons..	1,238	...	1,238	89	145	241	700	63
Value of shipments.....\$1,000..	32,398	10,583	21,815	1,219	2,083	2,223	12,067	4,223
Value added in mining.....do....	18,020	7,609	10,411	994	1,489	1,480	4,732	1,716
Number of persons engaged, total.....	2,989	1,488	1,501	222	234	207	575	263
Production and development workers.....	2,223	965	1,258	206	210	193	435	214
All other employees.....	313	111	202	...	11	14	140	37
Proprietors and firm members.....	453	412	41	16	13	...	...	12
Performing manual labor.....	382	354	28	11	11	...	...	6
Man-hours worked by production and develop- ment workers, total.....1,000..	4,230	1,740	2,490	351	431	463	791	454
At mines.....do....	2,910	1,739	1,171	226	280	298	174	193
At beneficiating plants.....do....	1,320	1	1,319	125	151	165	617	261
Man-hours spent on development and ex- ploration work (included above).....do....	216	75	141	21	39	9	21	51
Crude manganese ores beneficiated per man- hour at beneficiating plants....long tons..	0.94	...	0.94	0.71	0.96	1.46	1.13	0.24
Principal expenses designated below, total.....\$1,000..	24,295	7,095	17,200	725	1,576	1,410	9,803	3,686
Wages of production and development workers.....do....	7,546	3,420	4,126	429	685	651	1,490	871
Salaries of all other employees.....do....	1,568	474	1,094	...	72	50	744	228
Ores received for beneficiation.....do....	5,382	...	5,382	94	254	260	6,401	2,273
Supplies.....do....	5,051	1,151	3,900	...	...	...	...	...
Fuel.....do....	708	195	513	63	63	35	274	78
Purchased electric energy.....do....	477	94	383	35	50	26	183	89
Contract work.....do....	3,563	1,761	1,802	104	452	388	711	147
Purchased machinery installed.....do....	2,173	589	1,584	211	319	327	459	268
Capital expenditures, total.....do....	2,976	816	2,160	282	544	293	693	348
Development and exploration of mineral property.....do....	498	290	208	75	50	15	41	27
Beneficiating plant construction.....do....	511	7	504	15	176	46	199	68
Other construction.....do....	158	51	107	...	61	32	12	2
New machinery and equipment.....do....	1,266	242	1,024	141	133	180	359	211
Used plant and equipment.....do....	543	226	317	51	124	20	82	40
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	102,384	56,513	45,871	5,604	6,992	6,434	18,902	7,939
Per production worker.....	46	(⁶)	36	27	33	33	43	37
Prime movers.....	62,226	35,764	26,462	5,166	4,243	5,361	7,106	4,586
Electric motors driven by purchased energy.....	40,158	20,749	19,409	438	2,749	1,073	11,796	3,353
Horsepower rating of electric motors driven by energy generated at establish- ments reported.....	1,758	1,017	741	5	...	341	115	280
Energy used.....million kwh equivalent..	474	97	377	19	22	11	264	61
Coal.....1,000 short tons..	1	...	1	...	...	...	...	1
Fuel oil.....1,000 barrels..	76	8	68	6	6	4	35	17
Natural gas.....million cu. ft..	633	121	512	...	...	...	508	4
Electric energy purchased....million kwh..	79	16	63	2	6	1	37	17
Electric energy generated and used.....do....	2	1	1	...	...	...	...	1
Water intake, including mine water used.....million gallons..	2,815	19	2,796	270	294	343	1,802	87
Per production worker.....do....	1.27	(⁶)	2.22	1.31	1.40	1.78	4.14	0.41

¹Includes mines with nonproducing plants.²Primarily establishments not reporting their principal method.³Includes plants with nonproducing mines.⁴Figures for "Without beneficiating plant" include 10 thousand tons from open-pit operations and 42 thousand man-hours at open-pit mines. Figures for "With beneficiating plant" include 68 thousand tons from open-pit operations and 59 thousand man-hours at open-pit mines.⁵Includes 18 employees at central offices paid \$64,000 in salaries, that were not classified by type of operation.⁶See table 3A, footnote 5.⁷Represents all plants reporting any agglomeration; all agglomeration plants also reported other methods of beneficiation.⁸More than 90 percent of the total value of shipments shown for this group is accounted for by the following three methods or combination of methods: grinding, acid leaching, and electrolysis; crushing and milling imported ores; and magnetic separation. Also includes other methods, such as spirals, and establishments not reporting their principal method.

Table 4B.—DETAILED STATISTICS FOR THE TUNGSTEN ORES INDUSTRY IN THE UNITED STATES, BY TYPE OF OPERATION: 1954

Part I—Establishments classified by principal mining method

(For explanation of line captions, see INTRODUCTION)

Item	All types of establishments	Producing establishments												Non-producing establishments
		Open-pit mines		Combination open-pit and underground mines		Underground mines, by principal mining method							Treatment plants only ⁴	
						Total		Open stoping	Shrinkage stoping	Square-setting	Cut-and-fill stoping	Other ³		
		Without treatment plant ¹	With treatment plant ²	Without treatment plant ¹	With treatment plant ²									
Number of operating companies.....	500	88	117	19	28	130	80	50	20	10	11	121	24	39
Number of establishments.....	549	90	122	20	28	143	82	54	20	11	11	129	25	39
Number of mines.....	524	90	122	20	28	143	82	54	20	11	11	129	3	36
Number of treatment plants.....	171	3	41	...	28	5	55	17	10	6	5	22	25	14
Crude ore mined...1,000 short tons..	1,938	36	89	⁵ 126	⁵ 973	70	644	42	246	390	6	30	...	...
Units of WO ₃ contained....1,000..	994	11	35	69	387	71	421	39	162	254	6	31	...	...
Value of shipments.....\$1,000..	60,737	393	1,130	1,356	27,580	2,352	20,911	1,383	6,715	13,965	214	986	7,015	...
Value added in mining.....do....	40,744	357	852	1,087	15,823	2,694	18,696	1,306	6,522	12,556	192	814	1,185	50
Number of persons engaged, total.....	3,701	150	242	139	1,184	476	1,275	217	468	753	44	269	156	79
Production and development workers.....	2,635	30	73	111	925	264	1,080	118	424	687	22	93	115	37
All other employees.....	352	...	9	2	216	22	78	16	28	52	...	4	17	8
Proprietors and firm members.....	714	120	160	26	43	190	117	83	16	14	22	172	24	34
Performing manual labor.....	634	114	154	18	29	166	109	67	12	12	19	165	18	26
Man-hours worked by production and development workers, total.....1,000..	6,327	50	163	249	2,435	506	2,614	256	1,006	1,635	40	183	245	65
At mines, total.....do....	4,825	43	77	249	1,762	471	2,170	236	776	1,452	36	141	1	52
Underground & open-pit..do....	4,134	41	76	⁵ 234	⁵ 1,516	418	1,813	198	582	1,291	33	127	1	35
Surface (including mine shops and yards).....do....	691	2	1	15	246	53	357	38	194	161	3	14	...	17
At treatment plants.....do....	1,502	7	86	...	673	35	444	20	230	183	4	42	244	13
Man-hours spent on development and exploration work (included above).....do....	651	15	30	28	133	164	198	92	224	24	3	19	24	59
Crude ore mined per man-hour at mine.....short tons..	0.40	(⁶)	(⁶)	0.51	0.55	(⁶)	0.30	(⁶)	0.32	0.27	(⁶)	(⁶)	xxx	xxx
Units of WO ₃ per man-hour at mine.....	0.21	(⁶)	(⁶)	0.28	0.23	(⁶)	0.19	(⁶)	0.21	0.17	(⁶)	(⁶)	xxx	xxx
Principal expenses designated below, total.....\$1,000..	37,515	201	687	835	18,463	1,991	8,614	1,008	3,951	4,897	142	607	6,471	253
Wages of production and development workers.....do....	13,148	90	294	537	5,367	1,039	5,211	504	2,339	2,983	81	343	490	120
Salaries of all other employees.....do....	1,610	...	43	6	884	104	473	73	163	334	...	7	75	25
Ores and concentrates received for treatment.....do....	10,891	...	244	{ ... }	10,364	{ ... }	2,102	{ 64 }	49	1,174	48	{ 15 }	5,513	...
Supplies.....do....	8,295	52	{ 177 }	{ ... }	421	{ ... }	2,102	{ 188 }	831	1,174	48	{ 154 }	257	56
Fuel.....do....	933	18	45	30	376	99	310	59	205	110	8	27	48	7
Purchased electric energy.....do....	753	...	15	19	441	14	223	6	29	190	4	8	39	2
Contract work.....do....	1,885	41	46	66	1,031	314	295	114	335	106	1	53	49	43
Purchased machinery installed..do....	3,562	120	142	126	1,357	222	1,183	139	554	622	6	84	322	90
Capital expenditures, total.....do....	6,326	195	214	149	1 812	1,412	1,898	493	1,810	793	45	169	398	248
Development and exploration of mineral property.....do....	2,168	75	36	38	512	745	654	348	779	140	37	95	2	106
Treatment plant construction.....do....	885	9	36	...	176	247	236	14	422	31	...	16	122	59
Other construction.....do....	382	7	8	2	156	75	127	3	188	7	...	4	...	7
New machinery and equipment.....do....	2,224	64	84	69	870	238	731	81	355	518	7	8	131	37
Used plant and equipment...do....	667	40	50	40	98	107	150	47	66	97	1	46	143	39
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	156,190	4,561	10,460	15,319	65,328	16,712	33,181	10,070	17,280	11,707	3,192	7,644	5,510	5,119
Per production worker.....	59	(⁶)	(⁶)	138	71	(⁶)	31	(⁶)	41	17	(⁶)	(⁶)	48	(⁶)
Prime movers.....	106,231	4,529	9,723	6,189	36,634	15,874	25,478	9,409	15,607	6,569	2,881	6,886	2,871	4,933
Electric motors driven by purchased energy.....	49,959	32	737	9,130	28,694	838	7,703	661	1,673	5,138	311	758	2,639	186
Horsepower rating of electric motors driven by energy generated at establishments reported....	9,324	195	345	...	2,046	790	5,663	303	4,428	1,621	101	...	285	...
Energy used..million kwh equivalent..	371	5	11	10	185	27	106	14	63	48	1	7	25	2
Fuel oil.....1,000 barrels..	124	1	1	3	72	7	39	4	28	13	...	1	1	...
Natural gas.....million cu. ft..	46	...	...	...	...	...	...	...	...	...	...	...	45	1
Electric energy purchased.....million kwh..	61	...	1	1	38	...	19	...	2	17	...	...	2	...
Electric energy generated and used.....do....	20	...	1	...	3	...	16	...	13	3	...	...	...	...
Water intake, including mine water used.....million gallons..	3,380	3	187	16	1,198	2	1,760	11	684	884	39	144	214	...
Per production worker.....do....	1.28	(⁶)	(⁶)	0.14	1.30	(⁶)	1.63	(⁶)	1.61	1.29	(⁶)	(⁶)	1.86	...

See footnotes at end of table 4B, part II.

Table 4B.—DETAILED STATISTICS FOR THE TUNGSTEN ORES INDUSTRY IN THE UNITED STATES, BY TYPE OF OPERATION: 1954—Continued

Part II.—Producing establishments classified by principal treatment method

(For explanation of line captions, see INTRODUCTION)

Item	All producing establish- ments	Mines only ¹	Treatment plants (with or without mines)					
			Total ²	Principal treatment method				
				Flotation	Straight gravity	Gravity and flotation	Primitive methods ²	Chemical and other treatment methods ⁷
Number of operating companies.....	465	233	242	7	85	27	103	25
Number of establishments.....	510	253	257	7	88	27	108	27
Number of mines.....	488	253	235	5	79	23	108	20
Number of treatment plants.....	157	8	149	7	88	27	...	27
Ore, tailings, and concentrates treated.....1,000 short tons..	2,056	...	2,056	727	162	1,100	10	57
Units of WO ₃ contained.....1,000..	1,136	...	1,136	365	95	553	7	116
Concentrates produced.....1,000 short tons..	25	...	25	8	1	14	(⁸)	2
Units of WO ₃ contained.....1,000..	923	...	923	326	56	443	5	93
Value of shipments.....\$1,000..	60,737	4,101	56,636	20,275	3,189	27,181	328	5,663
Value added in mining.....do....	40,694	4,138	36,556	9,640	2,089	23,413	291	1,123
Number of persons engaged, total.....	3,622	765	2,857	756	431	1,376	151	143
Production and development workers.....	2,598	405	2,193	571	261	1,258	3	100
All other employees.....	344	24	320	181	26	101	...	12
Proprietors and firm members.....	680	336	344	4	144	17	148	31
Performing manual labor.....	608	298	310	2	118	14	148	28
Man-hours worked by production and develop- ment workers, total.....1,000..	6,262	805	5,457	1,542	605	3,093	5	212
At mines.....do....	4,773	763	4,010	1,081	350	2,520	5	54
At treatment plants.....do....	1,489	42	1,447	461	255	573	...	158
Man-hours spent on development and exploration work (included above).....do....	592	207	385	39	160	173	...	13
Ratio of units of WO ₃ contained in con- centrates produced to units of WO ₃ contained in material treated.....	0.81	xxx	0.81	0.89	0.59	0.80	0.71	0.80
Concentrates produced per man-hour at treatment plant.....pounds..	34	xxx	34	35	(⁶)	49	(⁶)	25
Units of WO ₃ contained per man-hour at treatment plant.....	0.62	xxx	0.62	0.71	(⁶)	0.77	(⁶)	0.59
Principal expenses designated below, total.....\$1,000..	37,262	3,027	34,235	14,974	2,935	11,299	47	4,980
Wages of production and development workers.....do....	13,028	1,666	11,362	3,540	1,069	6,326	10	417
Salaries of all other employees.....do....	1,585	110	1,475	682	111	620	...	62
Ores and concentrates received for treatment.....do....	10,891	...	10,891	5,112	1,054	615	...	4,110
Supplies.....do....	8,239	650	7,589	4,245	387	2,655	19	283
Fuel.....do....	926	147	779	285	83	355	3	53
Purchased electric energy.....do....	751	33	718	299	52	349	...	18
Contract work.....do....	1,842	421	1,421	811	179	379	15	37
Purchased machinery installed.....do....	3,472	468	3,004	740	343	1,732	19	170
Capital expenditures, total.....do....	6,078	1,756	4,322	857	998	2,317	19	131
Development and exploration of mineral property.....do....	2,062	858	1,204	194	236	755	15	4
Treatment plant construction.....do....	826	256	570	70	309	174	...	17
Other construction.....do....	375	84	291	115	68	106	...	2
New machinery and equipment.....do....	2,187	371	1,816	462	223	1,066	...	65
Used plant and equipment.....do....	628	187	441	16	162	216	4	43
Horsepower rating of power equipment (prime movers and electric motors driven by pur- chased energy), total.....	151,071	36,592	114,479	27,273	24,067	58,150	1,267	3,722
Per production worker.....	58	(⁵)	52	48	(⁶)	46	(⁶)	37
Prime movers.....	101,298	26,592	74,706	16,688	20,261	33,668	1,230	2,859
Electric motors driven by purchased energy.....	49,773	10,000	39,773	10,585	3,806	24,482	37	863
Horsepower rating of electric motors driven by energy generated at establishments reported.....	9,324	985	8,339	1,725	784	5,430	...	400
Energy used.....million kwh equivalent..	369	42	327	145	25	130	1	26
Fuel oil.....1,000 barrels..	124	11	113	63	4	45	...	1
Natural gas.....million cu. ft..	45	...	45	...	...	...	...	45
Electric energy purchased.....million kwh..	61	1	60	25	4	29	...	2
Electric energy generated and used.....do..	20	...	20	3	1	16	...	...
Water intake, including mine water used.....million gallons..	3,380	21	3,359	871	639	1,809	4	36
Per production worker.....do....	1.30	(⁶)	1.53	1.53	(⁶)	1.44	(⁶)	0.36

¹Includes mines with nonproducing plants. ²Includes establishments which do not have treatment plants, in the usual sense, but which treat tungsten ores by primitive methods, such as hand sorting and sluicing, to produce tungsten concentrates. ³Primarily establishments not reporting the principal method. ⁴Includes plants with nonproducing mines. ⁵Figures for "Without treatment plant" include 45 thousand tons from open-pit operations and 71 thousand man-hours at open-pit mines. Figures for "With treatment plant" include 360 thousand tons from open-pit operations and 259 thousand man-hours at open-pit mines. ⁶See table 3A, footnote 5. ⁷Between 85 and 90 percent of the total value of shipments shown for this group is accounted for by establishments reporting chemical methods as their principal treatment method. Also, includes establishments not reporting their principal treatment method. ⁸Less than 500 tons.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 4C.--DETAILED STATISTICS FOR THE MOLYBDENUM ORES AND FERRO-ALLOY ORES (EXCEPT VANADIUM), NOT ELSEWHERE CLASSIFIED, INDUSTRIES IN THE UNITED STATES, BY TYPE OF OPERATION: 1954

(For explanation of line captions, see INTRODUCTION)

Item	All types of establishments ¹	Producing establishments							Non-producing establishments
		Open-pit mines		Combination open-pit and underground mines		Underground mines ⁴		Treatment plants only ³	
		Without treatment plant ²	With treatment plant ³	Without treatment plant ²	With treatment plant ³	Without treatment plant	With treatment plant ³		
Number of operating companies.....	155	74	28	10	5	13	8	10	11
Number of establishments.....	170	80	29	10	5	16	9	10	11
Number of mines.....	158	80	29	10	5	16	9	...	9
Number of treatment plants.....	63	4	29	1	5	...	9	10	5
Value of shipments.....\$1,000..	60,536	1,398	1,538	63	179	443	56,663	252	...
Value added in mining.....do....	48,537	903	888	93	177	299	45,929	102	146
Number of persons engaged, total.....	⁵ 2,730	159	140	26	26	74	2,075	22	58
Production and development workers....	1,937	51	79	6	13	43	1,705	8	32
All other employees.....	⁵ 550	3	17	...	...	10	359	...	11
Proprietors and firm members.....	243	105	44	20	13	21	11	14	15
Performing manual labor.....	194	98	35	16	9	11	8	13	4
Man-hours worked by production and development workers, total.....1,000..	4,502	91	153	10	36	84	4,043	18	67
At mines, total.....do....	2,983	91	39	10	21	84	2,681	...	57
Underground and open-pit.....do....	2,261	73	39	⁶ 7	⁶ 19	75	2,030	...	18
Surface (including mine shops and yards).....do....	722	18	...	3	2	9	651	...	39
At treatment plants.....do....	1,519	...	114	...	15	...	1,362	18	10
Man-hours spent on development and exploration work (included above).. <do....< td=""><td>119</td><td>10</td><td>5</td><td>2</td><td>7</td><td>8</td><td>54</td><td>1</td><td>32</td></do....<>	119	10	5	2	7	8	54	1	32
Principal expenses designated below, total.....\$1,000..	⁵ 29,804	1,527	1,189	48	139	376	24,728	213	313
Wages of production and development workers.....do....	10,539	192	284	21	55	188	9,621	35	143
Salaries of all other employees.....do....	⁵ 3,946	6	106	...	...	33	2,469	...	61
Ores received for treatment.....do....	461	...	309	...	4	...	...	148	...
Supplies.....do....	9,853	206	207	⁷ 17	51	120	9,169	⁷ 22	70
Fuel.....do....	357	28	34	8	9	10	260	5	3
Purchased electric energy.....do....	1,289	1	16	2	...	...	1,267	3	...
Contract work.....do....	3,359	1,094	233	(⁷)	20	25	1,942	(⁷)	36
Purchased machinery installed.....do....	2,609	388	179	18	42	16	1,732	13	221
Capital expenditures, total.....do....	5,929	1,222	328	75	124	27	3,636	41	476
Development and exploration of mineral property.....do....	410	66	41	37	43	20	161	...	42
Treatment plant construction.....do....	1,672	193	132	14	29	...	1,122	14	168
Other construction.....do....	1,662	633	6	4	2	...	972	3	42
New machinery and equipment.....do....	1,987	305	71	1	12	...	1,377	...	221
Used plant and equipment.....do....	198	25	78	19	38	7	4	24	3
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	106,519	8,459	6,296	1,917	1,769	1,804	80,731	2,710	2,833
Per production worker.....	55	(⁸)	(⁸)	(⁸)	(⁸)	42	47	(⁸)	89
Prime movers.....	34,007	7,671	5,821	1,811	1,741	1,804	10,146	2,180	2,833
Electric motors driven by purchased energy.....	72,512	788	475	106	28	...	70,585	530	...
Horsepower rating of electric motors driven by energy generated at establishments reported.....	1,673	232	280	...	75	82	200	100	704
Energy used.....million kwh equivalent..	280	7	10	2	3	5	252	1	...
Coal.....1,000 short tons..	2	...	...	...	...	...	2	...	...
Fuel oil.....1,000 barrels..	30	1	1	...	1	1	26	...	...
Natural gas.....million cu. ft..	4	4	...	...	...	...	...	...	...
Electric energy purchased.....million kwh..	167	...	1	...	...	...	166	...	...
Electric energy generated and used.....do....	1	...	...	...	...	...	...	...	1
Water intake, including mine water used.....million gallons..	1,447	...	95	...	23	2	1,297	30	...
Per production worker.....do....	0.75	...	(⁸)	...	(⁸)	0.05	0.76	(⁸)	...

¹Represents the chromium ores subindustry and the following establishments in other industries and subindustries: Molybdenum ores industry, 2 underground mines with treatment plants and 1 nonproducing mine; cobalt ores subindustry, 1 underground mine with treatment plant; nickel ores subindustry, 1 open-pit mine with a nonproducing plant and 2 nonproducing mines; and columbium ores subindustry, 4 open-pit mines and 1 nonproducing mine with a nonproducing plant. ²Includes mines with nonproducing plants. ³Establishments reporting flotation as the principal treatment method account for between 85 and 95 percent of the combined value of shipments for treatment plants, including both plants operated in conjunction with mines and plants only. Establishments reporting straight gravity account for most of the balance, with other methods accounting for only approximately one percent of the combined total. ⁴Underground mines reporting block caving as the principal mining method account for between 80 and 90 percent of the combined value of shipments for underground mines, with shrinkage stoping and cut-and-fill stoping each accounting for between 5 and 10 percent. Underground mines reporting other principal methods account for only approximately one percent of the combined total for underground mines. ⁵Includes 150 employees at central offices paid \$1,271,000 in salaries, that were not classified by type of operation. ⁶Figure for "Without treatment plant" includes 3 thousand man-hours and figure for "With treatment plant" includes 10 thousand such man-hours. ⁷Cost of contract work is included with cost of supplies. ⁸See table 3, footnote 5.

Table 5A.—PRODUCTS OF THE MANGANESE ORES INDUSTRY AND MANGANESE ORES AND CONCENTRATES IN ALL MINERAL INDUSTRIES IN THE UNITED STATES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954 AND 1939

(For explanation of column captions, see INTRODUCTION)

Product, geographic division, and State	1954					1939	
	Production	Shipment and interplant transfers		Stocks		Production	
		Quantity (1,000 long tons)	Quantity (1,000 long tons)	Value f.o.b. mine or plant (\$1,000)	Dec. 31, 1953 Quantity (1,000 long tons)	Dec. 31, 1954 Quantity (1,000 long tons)	Quantity (1,000 long tons)	Value f.o.b. mine or plant ($1,000)
<u>UNITED STATES</u>							
MANGANESE ORES INDUSTRY							
All products and services, total ¹	xxx	xxx	32,398	xxx	xxx	xxx	945
Crude ore mined, total.....	1,574	xxx	xxx	61	123	(NA)	xxx
From underground operations.....	522	xxx	xxx	xxx	xxx	(NA)	xxx
From open-pit operations.....	1,052	xxx	xxx	xxx	xxx	(NA)	xxx
Manganese agglomerates containing 35 percent or more manganese ²	152	130	10,399	}	19	38	{ ... 425
Manganese ores and concentrates containing 35 percent or more manganese ¹	3300	88	9,158				
Manganese ores and concentrates containing less than 35 percent manganese ^{1 6}	591	612	11,741		40	19		722
Secondary products and services ⁸	xxx	xxx	1,100	xxx	xxx	xxx	55
Receipts for beneficiation on a custom basis.	xxx	xxx	997	xxx	xxx	xxx	...
ALL MINERAL INDUSTRIES							
Manganese ores and concentrates containing 35 percent or more manganese ¹	3300	88	9,175	(NA)	(NA)	}	48
Manganese ores and concentrates containing less than 35 percent manganese ^{1 6}	604	625	11,963	(NA)	(NA)		
<u>EAST AND SOUTH</u>							
MANGANESE ORES INDUSTRY							
All products and services, total ¹	xxx	xxx	5,059	xxx	xxx	xxx	(NA)
Crude ore mined, total.....	451	xxx	xxx	1	1	(NA)	xxx
From underground operations.....	5	xxx	xxx	xxx	xxx	(NA)	xxx
From open-pit operations.....	446	xxx	xxx	xxx	xxx	(NA)	xxx
Manganese ores, concentrates, and agglomerates containing 35 percent or more manganese.....	57	22	4,899	...	...	(NA)	(NA)
Manganese ores and concentrates containing less than 35 percent manganese ^{1 2 6}	45	42	160	1	4	(NA)	(NA)
ALL MINERAL INDUSTRIES							
Manganese ores, concentrates, and agglomerates containing 35 percent or more manganese ¹	57	52	4,916	(NA)	(NA)	(NA)	(NA)
<u>TENNESSEE</u>							
MANGANESE ORES INDUSTRY							
All products and services, total ¹	xxx	xxx	1,011	xxx	xxx	xxx	(NA)
Crude ore mined.....	10158	xxx	xxx	...	...	(NA)	xxx
Manganese ores and concentrates containing 35 percent or more manganese ^{1 2}	11	11	1,011	...	...	(NA)	(NA)
Manganese ores and concentrates containing less than 35 percent manganese ^{1 2 6}	1	...	...	1	2	(NA)	(NA)
<u>OTHER STATES¹¹</u>							
MANGANESE ORES INDUSTRY							
All products and services, total ¹	xxx	xxx	4,048	xxx	xxx	xxx	(NA)
Crude ore mined, total.....	293	xxx	xxx	1	1	(NA)	xxx
From underground operations.....	5	xxx	xxx	xxx	xxx	(NA)	xxx
From open-pit operations.....	288	xxx	xxx	xxx	xxx	(NA)	xxx
Manganese ores, concentrates, and agglomerates containing 35 percent or more manganese ¹	46	41	3,888	...	...	(NA)	(NA)
Manganese ores and concentrates containing less than 35 percent manganese ^{1 2 6}	44	42	160	...	2	(NA)	(NA)
ALL MINERAL INDUSTRIES							
Manganese ores, concentrates, and agglomerates containing 35 percent or more manganese ¹	46	41	3,905	(NA)	(NA)	(NA)	(NA)

See footnotes at end of table.

Table 5A.—PRODUCTS OF THE MANGANESE ORES INDUSTRY AND MANGANESE ORES AND CONCENTRATES IN ALL MINERAL INDUSTRIES IN THE UNITED STATES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954 AND 1939--Continued

(For explanation of column captions, see INTRODUCTION)

Product, geographic division, and State	1954					1939	
	Production Quantity (1,000 long tons)	Shipment and interplant transfers		Stocks		Production	
		Quantity (1,000 long tons)	Value f.o.b. mine or plant (\$1,000)	Dec. 31, 1953 Quantity (1,000 long tons)	Dec. 31, 1954 Quantity (1,000 long tons)	Quantity (1,000 long tons)	Value f.o.b. mine or plant (\$1,000)
<u>MOUNTAIN</u>							
MANGANESE ORES INDUSTRY							
All products and services, total ¹	xxx	xxx	25,854	xxx	xxx	xxx	(NA)
Crude ore mined, total.....	1,067	xxx	xxx	60	122	(NA)	xxx
From underground operations.....	489	xxx	xxx	xxx	xxx	(NA)	xxx
From open-pit operations.....	578	xxx	xxx	xxx	xxx	(NA)	xxx
Manganese ores, concentrates, and agglom- erates containing 35 percent or more manganese ²	389	160	14,177	18	38	(NA)	(NA)
Manganese ores and concentrates containing less than 35 percent manganese ^{1 6}	510	534	10,578	39	15	(NA)	(NA)
Secondary products and services.....	xxx	xxx	1,099	xxx	xxx	xxx	(NA)
ALL MINERAL INDUSTRIES							
Manganese ores and concentrates containing less than 35 percent manganese ^{1 6}	523	547	10,800	(NA)	(NA)	(NA)	(NA)
<u>MONTANA</u>							
MANGANESE ORES INDUSTRY							
All products and services, total ¹	xxx	xxx	10,964	xxx	xxx	xxx	544
Crude ore mined.....	12341	xxx	xxx	4	...	(NA)	xxx
Manganese agglomerates containing 35 per- cent or more manganese ²	492	398	9,867	47	42	...	...
Manganese ores and concentrates containing 35 percent or more manganese ²						410	} 5496
Manganese ores and concentrates containing less than 35 percent manganese ^{2 6}						73	
Secondary products and services.....						xxx	
<u>NEW MEXICO</u>							
MANGANESE ORES INDUSTRY							
All products and services, total ¹	xxx	xxx	2,232	xxx	xxx	xxx	(NA)
Crude ore mined, total.....	211	xxx	xxx	...	...	(NA)	xxx
From underground operations.....	49	xxx	xxx	xxx	xxx	(NA)	xxx
From open-pit operations.....	162	xxx	xxx	xxx	xxx	(NA)	xxx
Manganese ores and concentrates containing 35 percent or more manganese ²	66	65	2,232	{	...	(NA)	(NA)
Manganese ores and concentrates containing less than 35 percent manganese ^{2 6}	1	(NA)	(NA)
<u>ARIZONA</u>							
MANGANESE ORES INDUSTRY							
All products and services, total ¹	xxx	xxx	4,031	xxx	xxx	xxx	...
Crude ore mined, total.....	187	xxx	xxx	...	...	...	xxx
From underground operations.....	91	xxx	xxx	xxx	xxx	...	xxx
From open-pit operations.....	96	xxx	xxx	xxx	xxx	...	xxx
Manganese ores and concentrates con- taining 35 percent or more manganese ²	11	11	629	...	...	...	...
Manganese ores and concentrates containing less than 35 percent manganese ^{2 6}	123	122	3,400	...	1	...	...
Secodary products and services.....	xxx	xxx	2	xxx	xxx	xxx	...
<u>NEVADA</u>							
MANGANESE ORES INDUSTRY							
All products and services, total ¹	xxx	xxx	8,439	xxx	xxx	xxx	...
Crude ore mined, total.....	322	xxx	xxx	56	122	...	xxx
From underground operations.....	3	xxx	xxx	xxx	xxx	...	xxx
From open-pit operations.....	319	xxx	xxx	xxx	xxx	...	xxx
Manganese ores, concentrates, and agglom- erates containing 35 percent or more manganese ²	201	92	8,385	10	9	...	...
Manganese ores and concentrates containing less than 35 percent manganese ^{1 6}	1	1	54	...	...	...	...

See footnotes at end of table.

Table 5A.—PRODUCTS OF THE MANGANESE ORES INDUSTRY AND MANGANESE ORES AND CONCENTRATES IN ALL MINERAL INDUSTRIES IN THE UNITED STATES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954 AND 1939—Continued

(For explanation of column captions, see INTRODUCTION)

Product, geographic division, and State	1954					1939	
	Production Quantity (1,000 long tons)	Shipment and interplant transfers		Stocks		Production	
		Quantity (1,000 long tons)	Value f.o.b. mine or plant (\$1,000)	Dec. 31, 1953 Quantity (1,000 long tons)	Dec. 31, 1954 Quantity (1,000 long tons)	Quantity (1,000 long tons)	Value f.o.b. mine or plant (\$1,000)
NEVADA—Continued							
ALL MINERAL INDUSTRIES							
Manganese ores and concentrates containing less than 35 percent manganese ^{1 6}	13	13	274	(NA)	(NA)	(NA)	(NA)
OTHER STATES ¹³							
MANGANESE ORES INDUSTRY							
All products and services, total ¹	xxx	xxx	188	xxx	xxx	xxx	(NA)
Crude ore mined, total.....	6	xxx	xxx	...	...	(NA)	xxx
From underground operations.....	5	xxx	xxx	xxx	xxx	(NA)	xxx
From open-pit operations.....	1	xxx	xxx	xxx	xxx	(NA)	xxx
Manganese ores and concentrates containing 35 percent or more manganese ²	5	5	188	...	...	(NA)	(NA)
Manganese ores and concentrates containing less than 35 percent manganese ^{1 6}							
ALL MINERAL INDUSTRIES							
Manganese ores and concentrates containing less than 35 percent manganese ^{1 6}	6	6	169	(NA)	(NA)	(NA)	(NA)
PACIFIC ¹⁴							
MANGANESE ORES INDUSTRY							
All products and services, total ¹	xxx	xxx	1,485	xxx	xxx	xxx	(NA)
Crude ore mined, total.....	56	xxx	xxx	...	...	(NA)	xxx
From underground operations.....	28	xxx	xxx	xxx	xxx	(NA)	xxx
From open-pit operations.....	28	xxx	xxx	xxx	xxx	(NA)	xxx
Manganese ores and concentrates containing 35 percent or more manganese ²	6	6	481	1	...	(NA)	(NA)
Manganese ores and concentrates containing less than 35 percent manganese ^{2 6}	36	36	1,003	...	...	(NA)	(NA)
Secondary products and services.....	xxx	xxx	1	xxx	xxx	xxx	(NA)

xxx Not applicable.

NA Not available.

¹Figures for 1954 contain duplication whereas statistics for 1939 represent net figures. (See table 1, footnotes 6 and 9, and table 3A, footnote 4.)²For 1954, represents totals for all mineral industries, since no production was reported by establishments classified in other industries.³Includes concentrates further processed to produce manganese agglomerates at the same establishment, representing approximately two-thirds of the figure shown for the United States.⁴Concentrates only.⁵The value of all concentrates produced in the United States was \$774,000 and of direct-shipping ores, \$116,000, and in Montana \$481,000 for concentrates and \$15,000 for direct-shipping ores.⁶Excludes manganiferous iron ores containing more than 5 percent manganese but valued chiefly for their iron content. Establishments primarily producing such ores are classified in the iron ores industry.⁷Represents for the United States total, approximately 8,500 tons of concentrates and 13,600 tons of direct-shipping ores and for Montana approximately 1,800 tons of concentrates and 1,100 tons of direct-shipping ores.⁸For 1954, represents primarily the value of shipments of zinc and silver ores and receipts for services. For 1939, represents the value of zinc and silver ores and sand and gravel.⁹Excluded from the total value of all products and services in order to avoid duplication. The value of concentrates above includes the value of concentrates produced on a custom basis as well as concentrates produced from own and purchased ores.¹⁰From open-pit operations.¹¹Pennsylvania, Missouri, Virginia, and Arkansas.¹²From underground operations.¹³Idaho, Colorado, and Utah.¹⁴California.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 5B.—PRODUCTS OF THE TUNGSTEN ORES INDUSTRY AND TUNGSTEN CONCENTRATES IN ALL MINERAL INDUSTRIES IN THE UNITED STATES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954 AND 1939

(For explanation of column captions, see INTRODUCTION)

Product, geographic division, and State	1954									1939			
	Production		Shipments and inter-plant transfers			Stocks				Production			
						December 31, 1953		December 31, 1954					
	Quan- tity (1,000 short tons)	Units of WO ₃ con- tained (1,000)	Quan- tity (1,000 short tons)	Units of WO ₃ con- tained (1,000)	Value f.o.b. mine or plant (\$1,000)	Quan- tity (1,000 short tons)	Units of WO ₃ con- tained (1,000)	Quan- tity (1,000 short tons)	Units of WO ₃ con- tained (1,000)	Quan- tity (1,000 short tons)	Units of WO ₃ con- tained (1,000)	Value f.o.b. mine or plant (\$1,000)	
<u>UNITED STATES</u>													
TUNGSTEN ORES INDUSTRY													
All products and services, total ¹	xxx	xxx	xxx	xxx	60,737	xxx	xxx	xxx	xxx	xxx	xxx	3,354	
Primary products													
Crude ore mined, total.....	1,938	994	xxx	xxx	xxx	56	33	76	38	} 315	(NA)	xxx	
From underground operations.....	1,408	789	xxx	xxx	xxx	xxx	xxx	xxx	xxx		(NA)	xxx	
From open-pit operations.....	530	205	xxx	xxx	xxx	xxx	xxx	xxx	xxx				
Tungsten tailings.....	xxx	xxx	12	3	91	xxx	xxx	xxx	xxx	279	(NA)	(³)	
Milling ores, total.....	xxx	xxx	286	185	4,880	xxx	xxx	xxx	xxx	412	(NA)	434	
Sold or transferred to other plants for treat- ment, except shipments for treatment on a custom basis.....	xxx	xxx	151	104	3,293	xxx	xxx	xxx	xxx	xxx	xxx	(NA)	
Shipped to custom mills for treatment.....	xxx	xxx	135	81	1,587	xxx	xxx	xxx	xxx	xxx	xxx	(NA)	
Concentrates ¹	25	923	24	915	55,251	(⁵)	22	(⁵)	30	63	6193	63,231	
Secondary products and services													
Gold from placer gravels.....	xxx	xxx	xxx	xxx	26	xxx	xxx	xxx	xxx	xxx	xxx	} 89	
Other products ⁷	xxx	xxx	xxx	xxx	397	xxx	xxx	xxx	xxx	xxx	xxx		
Products purchased and resold without further processing.....	xxx	xxx	xxx	xxx	84	xxx	xxx	xxx	xxx	xxx	xxx	(NA)	
Receipts for services:													
Hauling, stripping, shaft sinking, pumping, and shop work.....	xxx	xxx	xxx	xxx	8	xxx	xxx	xxx	xxx	xxx	xxx	...	
Treating ores on a custom basis.....	xxx	xxx	xxx	xxx	81,419	xxx	xxx	xxx	xxx	xxx	xxx	...	
<u>ALL MINERAL INDUSTRIES</u>													
Tungsten concentrates ¹	26	966	25	958	57,861	(⁵)	22	(⁵)	30	(NA)	(NA)	(NA)	
<u>SOUTH ATLANTIC¹⁰</u>													
TUNGSTEN ORES INDUSTRY													
All products and services, total ¹	xxx	xxx	xxx	xxx	9,595	xxx	xxx	xxx	xxx	xxx	xxx	...	
Primary products													
Crude ore mined.....	10289	174	xxx	xxx	xxx	15	9	16	10	...	...	xxx
Concentrates ¹¹	3	151	3	152	9,595	(⁵)	6	(⁵)	5	...	...	...
<u>MOUNTAIN¹²</u>													
TUNGSTEN ORES INDUSTRY													
All products and services, total ¹	xxx	xxx	xxx	xxx	32,010	xxx	xxx	xxx	xxx	xxx	xxx	2,226	
Primary products													
Crude ore mined, total.....	1,131	554	xxx	xxx	xxx	29	19	40	18	} 13226	(NA)	xxx	
From underground operations.....	760	412	xxx	xxx	xxx	xxx	xxx	xxx	xxx		13226	(NA)	xxx
From open-pit operations.....	371	142	xxx	xxx	xxx	xxx	xxx	xxx	xxx				
Milling ores.....	xxx	xxx	13201	13131	133,298	xxx	xxx	xxx	xxx	41	(NA)	(¹⁴)	
Concentrates ¹	18	497	17	488	28,514	(⁵)	12	(⁵)	21	62	6126	6152,180	
Secondary products and services													
Products purchased and resold without further processing.....	xxx	xxx	xxx	xxx	84	xxx	xxx	xxx	xxx	xxx	xxx	(NA)	
Other products and receipts for services other than treating ores on a custom basis.....	xxx	xxx	xxx	xxx	114	xxx	xxx	xxx	xxx	xxx	xxx	1446	
Receipts for treating ores on a custom basis.....	xxx	xxx	xxx	xxx	81,360	xxx	xxx	xxx	xxx	xxx	xxx	...	
<u>ALL MINERAL INDUSTRIES</u>													
Tungsten concentrates ¹	19	540	18	531	31,117	(⁵)	12	(⁵)	21	(NA)	(NA)	(NA)	
<u>MONTANA</u>													
TUNGSTEN ORES INDUSTRY													
All products and services, total ¹	xxx	xxx	xxx	xxx	2,237	xxx	xxx	xxx	xxx	xxx	xxx	...	
Primary products													
Crude ore mined, total.....	133	59	xxx	xxx	xxx	...	...	16	7	...	...	xxx
From underground operations.....	14	6	xxx	xxx	xxx	xxx	xxx	xxx	xxx	...	...	xxx
From open-pit operations.....	119	53	xxx	xxx	xxx	xxx	xxx	xxx	xxx	...	...	xxx
Milling ores.....	xxx	xxx	1	2	35	xxx	xxx	xxx	xxx	xxx	...	...
Concentrates ¹ 11.....	4	44	4	42	2,202	...	...	(⁵)	1	...	...	...

See footnotes at end of table.

Table 5B.—PRODUCTS OF THE TUNGSTEN ORES INDUSTRY AND TUNGSTEN CONCENTRATES IN ALL MINERAL INDUSTRIES IN THE UNITED STATES BY GEOGRAPHIC DIVISIONS AND STATES: 1954 AND 1939—Continued

(For explanation of column captions, see INTRODUCTION)

Product, geographic division, and State	1954									1939		
	Production		Shipments and inter-plant transfers			Stocks				Production		
						December 31, 1953		December 31, 1954				
	Quantity (1,000 short tons)	Units of WO ₃ contained (1,000)	Quantity (1,000 short tons)	Units of WO ₃ contained (1,000)	Value f.o.b. mine or plant (\$1,000)	Quantity (1,000 short tons)	Units of WO ₃ contained (1,000)	Quantity (1,000 short tons)	Units of WO ₃ contained (1,000)	Quantity (1,000 short tons)	Units of WO ₃ contained (1,000)	Value f.o.b. mine or plants (\$1,000)
<u>ARIZONA</u>												
TUNGSTEN ORES INDUSTRY												
All products and services, total ¹	xxx	xxx	xxx	xxx	479	xxx	xxx	xxx	xxx	xxx	xxx	(NA)
Primary products												
Crude ore mined, total.....	32	11	xxx	xxx	xxx	1	(⁵)	1	(⁵)	(NA)	(NA)	xxx
From underground operations.....	13	7	xxx	xxx	xxx	xxx	xxx	xxx	xxx	(NA)	(NA)	xxx
From open-pit operations.....	19	4	xxx	xxx	xxx	xxx	xxx	xxx	xxx	(NA)	(NA)	xxx
Milling ores.....	xxx	xxx	4	3	1472	xxx	xxx	xxx	xxx	xxx	xxx	(NA)
Concentrates ¹ 11.....	(⁵)	7	(⁵)	7	407	...	...	...	...	(NA)	(NA)	(NA)
Secondary products and services												
Products purchased and resold without further processing.....	xxx	xxx	xxx	xxx	(¹⁴)	xxx	xxx	xxx	xxx	xxx	xxx	...
<u>NEVADA</u>												
TUNGSTEN ORES INDUSTRY												
All products and services, total ¹	xxx	xxx	xxx	xxx	20,375	xxx	xxx	xxx	xxx	xxx	xxx	1,307
Primary products												
Crude ore mined, total.....	823	414	xxx	xxx	xxx	27	14	22	10	¹³ 126	(NA)	xxx
From underground operations.....	659	342	xxx	xxx	xxx	xxx	xxx	xxx	xxx	¹³ 126	(NA)	xxx
From open-pit operations.....	164	72	xxx	xxx	xxx	xxx	xxx	xxx	xxx	41	(NA)	(¹⁴)
Milling ores.....	xxx	xxx	¹³ 162	¹³ 102	¹³ 2,399	xxx	xxx	xxx	xxx	⁶ 1	⁶ 73	⁶ 151,302
Concentrates ¹	11	312	10	307	17,897	(⁵)	10	(⁵)	15			
Secondary products and services												
Silver ore shipped to smelters and products purchased and resold without further processing.....	xxx	xxx	xxx	xxx	79	xxx	xxx	xxx	xxx	xxx	xxx	145
Receipts for treating ore on a custom basis.....	xxx	xxx	xxx	xxx	8645	xxx	xxx	xxx	xxx	xxx	xxx	...
ALL MINERAL INDUSTRIES												
Tungsten concentrates ¹	11	312	10	308	17,899	(⁵)	10	(⁵)	15	(NA)	(NA)	(NA)
<u>OTHER STATES¹⁶</u>												
TUNGSTEN ORES INDUSTRY												
All products and services, total ¹	xxx	xxx	xxx	xxx	8,919	xxx	xxx	xxx	xxx	xxx	xxx	919
Primary products												
Crude ore mined, total.....	143	70	xxx	xxx	xxx	1	5	1	1	¹³ 100	(NA)	xxx
From underground operations.....	74	57	xxx	xxx	xxx	xxx	xxx	xxx	xxx	¹³ 100	(NA)	xxx
From open-pit operations.....	69	13	xxx	xxx	xxx	xxx	xxx	xxx	xxx	(⁵)	(NA)	(¹⁴)
Milling ores.....	xxx	xxx	34	24	14911	xxx	xxx	xxx	xxx	⁶ 1	⁶ 53	⁶ 151,878
Concentrates ¹	3	134	3	132	8,008	(⁵)	2	(⁵)	5			
Secondary products and services												
Silver concentrates and receipts for services other than treating ore on a custom basis.....	xxx	xxx	xxx	xxx	(¹⁴)	xxx	xxx	xxx	xxx	xxx	xxx	1441
Receipts for treating ore on a custom basis.....	xxx	xxx	xxx	xxx	8705	xxx	xxx	xxx	xxx	xxx	xxx	...
ALL MINERAL INDUSTRIES												
Tungsten concentrates ¹	4	177	4	174	10,609	(⁵)	2	(⁵)	5	(NA)	(NA)	(NA)
<u>PACIFIC ¹⁷</u>												
TUNGSTEN ORES INDUSTRY												
All products and services, total ¹	xxx	xxx	xxx	xxx	19,132	xxx	xxx	xxx	xxx	xxx	xxx	1,128
Primary products												
Crude ore mined, total.....	518	266	xxx	xxx	xxx	12	5	20	10	¹³ 168	(NA)	xxx
From underground operations.....	359	203	xxx	xxx	xxx	xxx	xxx	xxx	xxx	¹³ 168	(NA)	xxx
From open-pit operations.....	159	63	xxx	xxx	xxx	xxx	xxx	xxx	xxx	411	(NA)	(¹⁴)
Milling ores.....	xxx	xxx	¹³ 97	¹³ 57	¹³ 5,673	xxx	xxx	xxx	xxx	⁶ 1	⁶ 67	⁶ 151,051
Concentrates ¹	4	275	4	275	17,142	(⁵)	4	(⁵)	4			
Secondary products and services												
Gold from placer gravels.....	xxx	xxx	xxx	xxx	26	xxx	xxx	xxx	xxx	xxx	xxx	1477
Other products and services other than treating ore on a custom basis.....	xxx	xxx	xxx	xxx	291	xxx	xxx	xxx	xxx	xxx	xxx	
Receipts for treating ore on a custom basis.....	xxx	xxx	xxx	xxx	859	xxx	xxx	xxx	xxx	xxx	xxx	
ALL MINERAL INDUSTRIES												
Tungsten concentrates ¹	4	275	4	275	17,149	(⁵)	4	(⁵)	4	(NA)	(NA)	(NA)

See footnotes at end of table.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 5B.—PRODUCTS OF THE TUNGSTEN ORES INDUSTRY AND TUNGSTEN CONCENTRATES IN ALL MINERAL INDUSTRIES IN THE UNITED STATES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954 AND 1939—Continued

(For explanation of column captions, see INTRODUCTION)

Product, geographic division, and State	1954									1939		
	Production		Shipments and inter-plant transfers			Stocks				Production		
						December 31, 1953		December 31, 1954				
	Quantity (1,000 short tons)	Units of WO ₃ contained (1,000)	Quantity (1,000 short tons)	Units of WO ₃ contained (1,000)	Value f.o.b. mine or plants (\$1,000)	Quantity (1,000 short tons)	Units of WO ₃ contained (1,000)	Quantity (1,000 short tons)	Units of WO ₃ contained (1,000)	Quantity (1,000 short tons)	Units of WO ₃ contained (1,000)	Value f.o.b. mine or plants (\$1,000)
<u>CALIFORNIA</u>												
TUNGSTEN ORES INDUSTRY												
All products and services, total ¹	xxx	xxx	xxx	xxx	19,072	xxx	xxx	xxx	xxx	xxx	xxx	1,128
Primary products												
Crude ore mined, total.....	508	261	xxx	xxx	xxx	12	5	13	6	¹³ 168	(NA)	xxx
From underground operations.....	357	201	xxx	xxx	xxx	xxx	xxx	xxx	xxx	¹³ 168	(NA)	xxx
From open-pit operations.....	151	60	xxx	xxx	xxx	xxx	xxx	xxx	xxx			
Milling ores.....	xxx	xxx	¹³ 96	¹³ 56	¹³ 1,673	xxx	xxx	xxx	xxx	⁴ 11	(NA)	⁽¹⁴⁾
Concentrates ¹	4	274	4	274	17,082	(⁵)	4	(⁵)	4	⁶ 1	⁶ 67	⁶ 15,051
Secondary products and services												
Gold from placer gravels.....	xxx	xxx	xxx	xxx	26	xxx	xxx	xxx	xxx	xxx	xxx	} 1477
Other products and services except treating ore on a custom basis.....	xxx	xxx	xxx	xxx	291	xxx	xxx	xxx	xxx	xxx	xxx	
Receipts for treating ore on a custom basis.....	xxx	xxx	xxx	xxx	⁸ 59	xxx	xxx	xxx	xxx	xxx	xxx	
ALL MINERAL INDUSTRIES												
Tungsten concentrates ¹	4	274	4	274	17,088	(⁵)	4	(⁵)	4	(NA)	(NA)	(NA)

NA Not available. xxx Not applicable. ¹Figures for 1954 contain duplication whereas statistics for 1939 represent net figures (see Table 1, footnotes 7 and 9, and Table 3B, footnote 4). ²Includes surface float. ³No value of tailings was included since all of these tailings were consumed in the tungsten ores industry in the production of concentrates. ⁴Represents crude ore mined less crude ore treated and less ores classified as direct-shipping ores (see footnote 6 below). ⁵Less than 500 tons, or in the case of units of WO₃, less than 500 units. ⁶Includes low-grade concentrates originally classified as direct-shipping ores. For the United States, this material amounted to 134 tons, contained over 4,000 units of WO₃, and was valued at \$92,000. ⁷For 1954, represents primarily molybdenum, silver, and copper concentrates. ⁸Excluded from the total value of all products and services in order to avoid duplication. The value of concentrates above includes the value of concentrates produced on a custom basis as well as concentrates produced from own and purchased ores. ⁹North Carolina. ¹⁰From underground operations. ¹¹Represents totals for all mineral industries, since no production was reported by establishments classified in other industries. ¹²Figures for 1939 include data for Washington. ¹³Includes tailings. ¹⁴Value of milling ores is combined with other products and services. ¹⁵Computed by multiplying the units of WO₃ by the average mine or mill value per unit published by State. ¹⁶For both years, Idaho, Colorado, New Mexico, and Utah, and in addition for 1939, Arizona and Washington. ¹⁷For 1954, Washington and California; for 1939, California. Figures for Washington in 1939 are included with those for Mountain "Other States."

Table 5C.—PRODUCTS OF THE CHROMIUM ORES SUBINDUSTRY IN THE UNITED STATES: 1954

(For explanation of column captions, see INTRODUCTION)

Product	Production	Shipments and inter-plant transfers		Stocks	
				Dec. 31, 1953	Dec. 31, 1954
	Quantity (short tons)	Quantity (1,000 short tons)	Value f.o.b. mine or plant (\$1,000)	Quantity (1,000 short tons)	Quantity (1,000 short tons)
All products and services, total ¹	xxx	xxx	7,398	xxx	xxx
Crude chromium ores mined, total.....	362	35	1,349	4	2
From underground operations.....	296	xxx	xxx	xxx	xxx
From open-pit operations.....	66	xxx	xxx	xxx	xxx
Ores containing over 45% Cr ₂ O ₃	7	7	690	...	...
From underground operations.....	4	xxx	xxx	xxx	xxx
From open-pit operations.....	3	xxx	xxx	xxx	xxx
Ores containing 35 through 45% Cr ₂ O ₃	10	6	321	...	...
From underground operations.....	4	xxx	xxx	xxx	xxx
From open-pit operations.....	6	xxx	xxx	xxx	xxx
Ores containing less than 35% Cr ₂ O ₃	345	22	338	4	2
From underground operations.....	288	xxx	xxx	xxx	xxx
From open-pit operations.....	57	xxx	xxx	xxx	xxx
Chromium concentrates ²	145	145	6,049	...	...
Amount received for treating ore on a custom basis.....	xxx	xxx	³ 225	xxx	xxx

xxx Not applicable. ¹Figures contain duplication. (See Table 1, footnote 9, and Table 3C, footnote 3.) ²The value of chromium concentrates produced by establishments not classified in the chromium ores subindustry was only approximately \$1,000. ³Excluded from the total value of all products and services in order to avoid duplication. The value of concentrates above includes the value of concentrates produced on a custom basis as well as concentrates produced from own and purchased ores.

FERRO-ALLOY ORES, EXCEPT VANADIUM

101-19

Table 6A.--GENERAL STATISTICS FOR MANGANESE ORES ESTABLISHMENTS CLASSIFIED BY EMPLOYMENT SIZE, BY GEOGRAPHIC DIVISIONS AND STATES: 1954

(For explanation of column captions, see INTRODUCTION)

Geographic division, State, and number of employees in establishment	Number of establish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
United States, total.....	367	32,398	18,118	2,266	338	4,293	7,643	1,649	2,681
0.....	218	2,724	1,603	43	1	115	170	5	148
1-4.....	82	1,663	1,251	151	12	253	402	23	526
5-9.....	28	1,671	1,462	175	3	332	494	5	239
10-19.....	15	1,404	1,159	201	11	399	672	36	500
20-49.....	14	4,473	2,617	394	16	735	1,061	54	617
50-99.....	5	4,736	2,581	316	43	738	1,235	280	209
100-249.....	4	15,727	7,445	986	1252	1,721	3,609	1,246	442
250-499.....	...								
500-999.....	1								
1,000 and over.....	...	...	...	...	...	...	...	...	...
East and South, total.....	43	5,059	3,483	627	33	1,054	1,363	96	1,574
0.....	4	13	5	...	...	...	...	...	1
1-4.....	12	149	130	21	3	28	41	7	215
5-9.....	9	554	451	60	...	101	114	...	87
10-19.....	7	484	417	94	5	189	248	12	357
20-49.....	9	3,859	2,480	452	125	736	960	177	914
50-99.....	1								
100-249.....	1								
250 and over.....	...	...	...	...	...	...	...	...	...
Tennessee.....	9	1,011	794	151	1	299	393	2	254
0.....	1	33	29	16	...	26	28	...	29
1-4.....	1								
5-9.....	2								
10-19.....	2	978	765	135	1	273	365	2	225
20-49.....	3								
50 and over.....	...								
Arkansas.....	19	1,017	881	144	1	217	241	2	258
0.....	3	99	66	9	...	9	10	...	5
1-4.....	6								
5-9.....	6								
10-19.....	1	410	406	94	1	141	152	2	185
20-49.....	3								
50 and over.....	...								
Other States.....	15	3,031	1,808	332	31	538	729	92	1,062
0.....	...	...	...	...	...	...	...	...	...
1-4.....	5	76	82	15	3	27	38	7	201
5-9.....	1								
10-19.....	4								
20-49.....	3	2,749	1,533	269	124	424	566	175	656
50-99.....	1								
100-249.....	1								
250 and over.....	...	...	...	...	...	...	...	...	...
Mountain.....	257	25,854	13,513	1,532	294	3,004	5,893	1,508	854
0.....	163	1,660	863	...	...	1	2	...	72
1-4.....	60	1,350	1,021	122	8	217	346	13	293
5-9.....	16	1,058	942	101	2	203	325	4	97
10-19.....	6	824	635	82	2	167	339	3	67
20-49.....	4	6,085	3,458	374	48	836	1,519	306	178
50-99.....	4								
100-249.....	3								
250-499.....	...	14,877	6,594	853	234	1,580	3,362	1,182	147
500-999.....	1								
1,000 and over.....	...								
Montana.....	31	10,964	4,957	880	170	1,633	3,463	824	228
0.....	18	46	36	...	...	1	2	...	11
1-4.....	4	10	12	8	...	6	13	2	27
5-9.....	2	536	462	37	2	95	216	2	13
10-19.....	2								
20-49.....	...								
50-99.....	2	10,372	4,447	835	168	1,531	3,232	820	177
100-249.....	2								
250-499.....	...								
500-999.....	1	...	...	...	...	...	...	...	...
1,000 and over.....	...								
New Mexico.....	54	2,232	1,614	206	15	463	649	63	86
0.....	32	127	101	...	...	...	...	...	9
1-4.....	16	275	249	46	2	77	105	1	24
5-9.....	2								
10-19.....	...								
20-49.....	3	1,830	1,264	160	13	386	544	62	53
50-99.....	1								
100 and over.....	...								

¹Includes employees at central offices.

Table 6B.--GENERAL STATISTICS FOR TUNGSTEN ORES ESTABLISHMENTS CLASSIFIED BY EMPLOYMENT SIZE, BY GEOGRAPHIC DIVISIONS AND STATES: 1954--Continued

(For explanation of column captions, see INTRODUCTION)

Geographic division, State, and number of employees in establishment	Number of establishments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
Arizona.....	55	479	581	192	(1)	209	1370	(1)	425
0.....	37	159	101	...	...	...	...	...	4
1-4.....	12	50	41	21	...	35	55	...	14
5-9.....	4	270	439	171	(1)	174	1315	(1)	407
10-19.....	1								
20-49.....	1								
50 and over.....	...								
Nevada.....	168	20,375	15,494	1,024	99	2,528	5,432	563	2,431
0.....	116	511	416	...	...	...	...	...	45
1-4.....	31	607	425	57	4	104	198	14	156
5-9.....	7	1,311	739	46	6	111	219	35	127
10-19.....	5	795	703	68	6	155	335	28	64
20-49.....	3	2,792	2,736	220	14	488	1,043	96	934
50-99.....	2								
100-249.....	4								
Idaho, New Mexico, and Utah.....	35	7,001	2,560	180	37	401	795	163	454
0.....	15	28	17	...	...	...	...	...	29
1-4.....	9	121	147	16	3	27	47	7	108
5-9.....	7	2,739	311	30	10	66	112	34	64
10-19.....	2	4,113	2,085	134	24	308	636	122	253
20-49.....	1								
50-99.....	1								
100 and over.....	...								
South Atlantic and Pacific.....	218	28,727	19,130	1,181	189	2,839	5,893	762	1,894
0.....	142	517	391	...	...	...	...	...	88
1-4.....	56	912	810	113	5	199	376	28	257
5-9.....	11	739	546	66	3	123	236	8	218
10-19.....	3	282	222	30	1	64	136	6	19
20-49.....	3	26,277	17,161	972	180	2,453	5,145	720	1,312
50-99.....	...								
100-249.....	1								
250-499.....	1								
500-999.....	1								
1,000 and over.....	...	...	...	...	...	...	...	...	...

¹Figures for "All other employees" are included with figures for "Production and development workers."

Table 6C.--GENERAL STATISTICS FOR MOLYBDENUM ORES AND FERRO-ALLOY ORES (EXCEPT VANADIUM), NOT ELSEWHERE CLASSIFIED, ESTABLISHMENTS IN THE UNITED STATES CLASSIFIED BY EMPLOYMENT SIZE: 1954

Geographic division, State, and number of employees in establishment	Number of establishments in industry or subindustry					Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
	Molybdenum ores	Chromium ores	Cobalt ores	Nickel ores	Columbium ores			Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
United States, total	3	158	1	3	5	60,536	48,537	1,937	550	4,502	10,539	3,946	5,731
0.....	1	98	...	1	1	418	346	...	...	...	...	...	120
1-4.....	...	47	...	...	3	1,400	1,075	89	8	171	307	24	305
5-9.....	...	7	...	...	...	528	331	48	1	91	178	3	141
10-19.....	...	4	...	1	...	396	262	48	16	98	217	47	37
20-49.....	1	1	...	1	1	57,794	46,523	1,752	1,525	4,142	9,837	13,872	5,128
50-249.....	...	...	...	...	...			
250-499.....	...	1	1	...	...						
500-999.....	...	...	...	...	...			
1,000-2,499.....	1	...	...	...	...	...	...	...	...	...	...	...	...
2,500 and over...	...	...	...	...	...			

¹Includes employees at central offices.

Table 7.—MONTHLY EMPLOYMENT IN THE FERRO-ALLOY ORES, EXCEPT VANADIUM, INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES, AND BY TYPE OF OPERATION: 1954

Industry, geographic division, State, and type of operation	Average employment for the year ¹	Number of employees by month											
		January	February	March	April	May	June	July	August	September	October	November	December
MANGANESE ORES INDUSTRY													
United States, total.....	2,604	2,349	2,429	2,628	2,777	2,850	2,889	2,768	2,594	1,998	2,274	2,821	2,687
Geographic Division and State													
East and West South Central....	660	366	425	484	603	660	712	726	705	702	836	812	827
Tennessee.....	152	95	99	105	123	126	134	179	192	190	198	180	183
Arkansas.....	145	74	91	100	159	140	178	144	176	153	162	160	171
Other States.....	363	197	235	279	321	394	400	403	337	359	476	472	473
Mountain.....	1,826	1,897	1,923	2,047	2,041	2,087	2,037	1,919	1,769	1,178	1,309	1,878	1,725
Montana.....	1,050	1,207	1,229	1,314	1,290	1,283	1,233	1,120	968	375	514	1,111	961
New Mexico.....	221	155	170	184	191	207	222	228	245	243	265	268	261
Arizona.....	201	184	172	188	207	229	218	212	209	209	179	158	171
Nevada.....	331	334	338	346	331	341	332	326	317	325	329	325	322
Other States.....	23	17	14	15	22	27	32	33	30	26	22	16	10
Pacific.....	118	86	81	97	133	103	140	123	120	118	129	131	135
Type of Operation													
Producing establishments, total ²	2,536	2,295	2,372	2,576	2,731	2,802	2,816	2,689	2,527	1,929	2,198	2,739	2,606
Open-pit mines.....	890	556	625	711	840	912	925	950	933	940	1,087	1,045	1,063
Combination open-pit and underground mines.....	225	196	181	176	199	201	246	240	244	257	258	255	244
Underground mines.....	1,092	1,180	1,181	1,325	1,328	1,304	1,275	1,136	1,019	553	670	1,078	999
Beneficiating plants only ³ ..	329	363	385	364	364	385	370	363	331	179	183	361	300
Nonproducing establishments....	50	36	39	34	28	30	55	60	48	50	58	64	63
TUNGSTEN ORES INDUSTRY													
United States, total.....	2,987	2,659	2,729	2,719	2,813	2,861	3,016	3,130	3,117	3,192	3,187	3,215	3,013
Geographic Division and State													
South Atlantic.....	517	506	496	519	529	514	511	516	517	517	519	529	530
Mountain.....	1,617	1,398	1,466	1,427	1,466	1,514	1,610	1,691	1,682	1,739	1,740	1,809	1,710
Montana.....	73	59	59	58	60	62	81	81	81	82	82	79	92
Colorado.....	112	98	95	94	102	87	117	133	117	131	126	124	100
Arizona.....	92	83	85	85	92	99	92	95	96	97	93	83	85
Nevada.....	1,123	986	1,049	1,008	1,023	1,060	1,096	1,136	1,124	1,173	1,201	1,300	1,221
Other States.....	217	172	178	182	189	206	224	246	264	256	238	223	212
Pacific.....	853	755	767	773	818	833	895	923	918	936	928	877	773
Type of Operation													
Producing establishments, total	2,942	2,610	2,683	2,678	2,779	2,832	2,973	3,089	3,066	3,136	3,138	3,169	2,981
Open-pit mines.....	112	42	44	52	74	94	112	155	151	151	143	156	117
Combination open-pit and underground mines.....	1,254	1,201	1,214	1,218	1,234	1,240	1,288	1,297	1,268	1,256	1,269	1,280	1,263
Underground mines.....	1,444	1,253	1,304	1,294	1,355	1,371	1,441	1,503	1,505	1,584	1,578	1,581	1,452
Treatment plants only ³	132	114	121	114	116	127	132	134	142	145	148	152	149
Nonproducing establishments....	45	49	46	41	34	29	43	41	51	56	49	46	32
MOLYBDENUM ORES AND FERRO-ALLOY ORES													
(EXCEPT VANADIUM), NOT ELSEWHERE CLASSIFIED, INDUSTRIES													
United States.....	2,487	2,205	2,283	2,320	2,380	2,497	2,636	2,729	2,697	2,570	2,511	2,476	2,444
Type of Operation													
Producing establishments, total ⁴	2,294	2,033	2,115	2,153	2,206	2,317	2,446	2,531	2,486	2,355	2,303	2,277	2,240
Open-pit mines.....	150	107	119	123	138	155	180	185	182	162	156	137	120
Combination open-pit and underground mines.....	19	11	13	15	17	24	27	34	24	18	15	12	5
Underground mines.....	2,117	1,911	1,980	2,011	2,048	2,131	2,229	2,298	2,265	2,165	2,124	2,122	2,112
Treatment plants only.....	8	4	3	4	3	7	10	14	15	10	8	6	3
Nonproducing establishments....	43	25	21	20	22	28	38	44	57	61	63	54	59

¹Represents the sum of the average employment figures for the year as shown in the separate establishment reports. These are the averages shown in other tables of this report. Because of rounding, the sum of such average figures may differ slightly from an average of the January to December totals shown above.

²Excludes employees at central offices, which were not classified by type of operation. See table 4A, footnote 5.

³Includes plants with nonproducing mines.

⁴Excludes employees at central offices, which were not classified by type of operation. See table 4C, footnote 5.

Table 8.—GENERAL STATISTICS FOR PRODUCING TUNGSTEN ORES ESTABLISHMENTS IN THE UNITED STATES, CLASSIFIED BY OUTPUT PER MAN-HOUR: 1954

(Statistics of this type are not shown for other Ferro-Alloy Ores Industries since satisfactory quantity production figures are not available and since three-fourths of the value of shipments of the Manganese Ores Industry, and over nine-tenths of the value of shipments of the Molybdenum Ores and Ferro-Alloy Ores (except Vanadium) Industries, would have been in the "Unclassified" group for the reason indicated in footnote 2)

(For explanation of column captions, see INTRODUCTION)

Output per man hour ¹	Number of establishments	Number of mines			Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
		Open-pit	Combination open-pit and underground	Underground			Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
United States, total	510	215	48	225	60,737	40,694	2,598	344	6,262	13,028	1,585	5,450
Mines only, total.....	253	90	20	143	4,101	4,138	405	24	805	1,666	110	1,569
Less than 0.025.....	3	...	1	2	45	39	16	3	25	40	3	1
0.025-0.049.....	1	...	...	1								
0.050-0.094.....	...	...	...	...	706	643	61	9	118	230	44	52
0.095-0.124.....	2	...	...	2								
0.125-0.149.....	1	...	...	1								
0.150-0.174.....	2	...	...	2								
0.175-0.199.....	...	...	...	...	962	695	97	...	232	515	...	27
0.200-0.224.....	1	...	...	1								
0.225-0.249.....	...	...	...	...				
0.250 and over.....	2	...	1	1								
Unclassified ²	241	90	18	133	2,388	2,761	231	12	430	881	63	1,489
Mines with plant and plants only, total.....	257	³ 125	28	82	56,636	36,556	2,193	320	5,457	11,362	1,475	3,881
Less than 0.025.....	4	1	1	2	73	18	28	1	62	122	6	25
0.025-0.049.....	5	1	...	3	104	44	13	...	25	43	...	4
0.050-0.074.....	4	...	2	2	443	495	47	12	115	209	56	155
0.075-0.094.....	3	1	1	1	133	126	15	3	27	39	13	42
0.095-0.124.....	4	...	1	3	6,871	5,929	371	19	1,004	2,377	103	879
0.125-0.149.....	4	2	...	2	11,569	10,651	590	30	1,404	2,512	199	656
0.150-0.174.....	4	...	2	...	5,352	3,918	272	44	648	1,458	262	493
0.175-0.199.....	2	...	...	1	1,307	1,181	51	7	118	221	43	81
0.200-0.224.....	...	...	...	...				
0.225-0.249.....	1	...	...	...					
0.250 and over.....	9	...	1	1								
Unclassified ²	217	³ 120	20	66	20,900	7,629	364	148	979	2,426	522	332
					9,884	6,565	442	56	1,075	1,955	271	1,214

¹For mines only, represents the units of WO₃ in crude ore mined. For mines with plant and plants only, represents the units of WO₃ in concentrates produced.

²Principally represents, in terms of value of shipments and employment, reports indicating that a substantial proportion of the production was performed by contractors, for whom employee man-hours are not included above. This group also includes a large number of small establishments reporting that proprietors or partners regularly worked at the establishment; man-hours for these proprietors are not included above. For these types of reports, significant ratios of output per man-hours could not be computed. See INTRODUCTION.

³Includes nonproducing mines operated in conjunction with producing plants.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 9A.—GENERAL STATISTICS FOR MANGANESE ORES AND TUNGSTEN ORES ESTABLISHMENTS CLASSIFIED BY THE RATIO OF WAGES AND SALARIES TO VALUE ADDED IN MINING, BY GEOGRAPHIC DIVISIONS: 1954

(For explanation of column captions, see INTRODUCTION)

Industry, geographic division, and ratio of wages and salaries to value added in mining	Number of establish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expendi- tures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
MANGANESE ORES INDUSTRY									
United States, total.....	367	32,398	18,118	2,266	1338	4,293	7,643	1,649	2,681
Less than 0.30.....	41	5,094	3,478	320	5	492	740	6	606
0.30-0.39.....	21	8,372	4,856	265	82	564	1,114	477	188
0.40-0.49.....	20	2,149	1,567	218	10	400	635	55	369
0.50-0.59.....	15	2,117	1,490	193	21	441	688	116	56
0.60-0.69.....	9	651	576	127	10	271	333	22	327
0.70-0.79.....	10	527	494	101	4	200	350	15	169
0.80-0.89.....	4	2,677	1,293	210	42	401	855	279	66
0.90-0.99.....	3	3,156	2,313	525	74	924	1,847	300	189
1.00 and over.....	42	5,205	696	307	72	600	1,081	315	605
Unclassified ²	202	2,450	1,355	...	...	...	...	...	106
Middle Atlantic, West North Central, and South Atlantic, total.....	15	3,031	1,808	332	131	538	729	192	1,062
Less than 0.30.....	2	2,298	1,180	154	...	175	321	...	306
0.30-0.39.....	2								
0.40-0.49.....	2	146	155	25	4	49	58	9	184
0.50-0.59.....	1								
0.60-0.69.....	4	407	321	84	4	187	196	2	294
0.70-0.89.....	...	...	...	...	...	...	...	...	...
0.90-0.99.....	1	180	152	69	5	127	154	17	278
1.00 and over.....	3								
East South Central, total.....	9	1,011	794	151	1	299	393	2	254
Less than 0.30.....	2	727	575	84	...	172	209	...	70
0.30-0.39.....	1								
0.40-0.49.....	1	...	...	...	...	...	...	...	...
0.50-0.69.....	...								
0.70-0.79.....	2	284	219	67	1	127	184	2	184
0.80-0.99.....	...								
1.00 and over.....	3	...	...	...	...	...	...	...	...
West South Central, total.....	19	1,017	881	144	1	217	241	2	258
Less than 0.30.....	8	787	627	52	...	92	104	...	62
0.30-0.39.....	...	...	...	...	...	...	...	...	...
0.40-0.49.....	2	175	208	71	1	82	88	2	175
0.50-0.59.....	1								
0.60-0.69.....	...	...	...	...	...	...	...	...	...
0.70-0.79.....	1	...	...	...	...	...	...	...	...
0.80-0.99.....	...	...	...	...	...	...	...	...	...
1.00 and over.....	4	43	42	21	...	43	49	...	20
Unclassified ²	3	12	4	...	...	...	...	...	1
Mountain, total.....	257	25,854	13,513	1,532	294	3,004	5,893	1,508	854
Less than 0.30.....	21	1,739	1,413	89	3	169	259	2	222
0.30-0.39.....	18	8,009	4,588	236	82	498	1,024	477	122
0.40-0.49.....	13	1,548	1,042	99	6	219	410	46	36
0.50-0.59.....	11	2,080	1,425	174	20	414	657	114	24
0.60-0.69.....	4	239	250	41	6	82	134	20	33
0.70-0.79.....	4	197	168	22	...	48	129	...	57
0.80-0.89.....	4	2,677	1,293	210	42	401	855	279	66
0.90-0.99.....	2	7,838	2,564	661	135	1,173	2,425	570	230
1.00 and over.....	26								
Unclassified ²	154	1,527	770	...	...	...	...	...	64
Pacific, total.....	67	1,485	1,122	107	11	235	387	45	253
Less than 0.30.....	8	176	149	10	2	21	34	4	16
0.30-0.39.....	...	...	...	...	...	...	...	...	...
0.40-0.49.....	2	57	33	4	...	8	16	...	3
0.50-0.59.....	2								
0.60-0.69.....	1	134	178	35	4	69	113	15	104
0.70-0.79.....	3								
0.80-0.99.....	...	...	...	...	...	...	...	...	...
1.00 and over.....	6	207	181	58	5	137	224	26	89
Unclassified ²	45	911	581	...	...	...	...	...	41

See footnotes at end of table.

Table 9A.--GENERAL STATISTICS FOR MANGANESE ORES AND TUNGSTEN ORES ESTABLISHMENTS CLASSIFIED BY THE RATIO OF WAGES AND SALARIES TO VALUE ADDED IN MINING, BY GEOGRAPHIC DIVISIONS: 1954--Continued

(For explanation of column captions, see INTRODUCTION)

Industry, geographic division, and ratio of wages and salaries to value added in mining	Number of establish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expendi- tures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
TUNGSTEN ORES INDUSTRY									
United States, total.....	549	60,737	40,744	2,635	352	6,327	13,148	1,610	5,659
Less than 0.30.....	39	21,550	16,860	794	58	1,864	3,454	365	1,330
0.30-0.39.....	21	13,119	9,642	580	80	1,460	2,907	430	720
0.40-0.49.....	11	13,873	6,482	383	147	974	2,378	483	1,165
0.50-0.59.....	23	6,626	3,649	298	17	731	1,810	92	792
0.60-0.69.....	12	2,301	1,649	154	21	377	885	123	481
0.70-0.79.....	8	210	215	42	4	82	150	14	57
0.80-0.89.....	7	915	969	165	7	405	785	41	498
0.90-0.99.....	2								
1.00 and over.....	77	735	214	219	18	434	779	62	438
Unclassified ²	349	1,408	1,064	...	...	...	...	...	178
Mountain, total.....	331	32,010	21,614	1,454	163	3,488	7,255	848	3,765
Less than 0.30.....	25	10,240	6,234	225	37	509	1,059	210	640
0.30-0.39.....	13	12,843	9,387	549	80	1,400	2,813	430	698
0.40-0.49.....	4	112	562	59	3	103	215	11	727
0.50-0.59.....	13	6,035	3,298	259	15	652	1,630	85	754
0.60-0.69.....	8	221	208	27	5	59	116	21	84
0.70-0.79.....	6	1,045	1,115	189	11	457	878	55	530
0.80-0.89.....	5								
0.90-0.99.....	1	592	111	146	12	308	544	36	239
1.00 and over.....	46								
Unclassified ²	210	922	699	...	...	...	...	...	93
South Atlantic and Pacific, total	218	28,727	19,130	1,181	189	2,839	5,893	762	1,894
Less than 0.30.....	14	11,310	10,626	569	21	1,355	2,395	155	690
0.30-0.39.....	8	276	255	31	...	60	94	...	22
0.40-0.49.....	7	13,761	5,920	324	144	871	2,163	472	438
0.50-0.59.....	10	591	351	39	2	79	180	7	38
0.60-0.69.....	4	2,080	1,441	127	16	318	769	102	397
0.70-0.79.....	2	80	69	18	...	30	57	...	25
0.80-0.89.....	2								
0.90-0.99.....	1	143	103	73	6	126	235	26	199
1.00 and over.....	31								
Unclassified ²	139	486	365	...	...	...	...	...	85

¹Includes figures for employees at central offices, which were not classified by ratio of wages and salaries to value added.²Represents establishments reporting less than \$500 for wages and salaries.

Table 9B.--GENERAL STATISTICS FOR MOLYBDENUM ORES AND FERRO-ALLOY ORES (EXCEPT VANADIUM), NOT ELSEWHERE CLASSIFIED, ESTABLISHMENTS IN THE UNITED STATES CLASSIFIED BY THE RATIO OF WAGES AND SALARIES TO VALUE ADDED IN MINING: 1954

(For explanation of column captions, see INTRODUCTION)

Ratio of wages and salaries to value added in mining	Number of establishments in industry or subindustry					Value of ship- ments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by produc- tion and develop- ment workers (1,000)	Wages and salaries		New capital expendi- tures (\$1,000)
	Molyb- denum ores	Chro- mium ores	Co- balt ores	Nickel ores	Colum- bium ores			Produc- tion and develop- ment workers	All other em- ployees		Produc- tion and develop- ment workers (\$1,000)	All other employees (\$1,000)	
United States, total	3	158	1	3	5	60,536	48,537	1,937	1550	4,502	10,539	13,946	5,731
Less than 0.30.....	1	18	...	...	...	59,521	47,640	1,243	269	2,930	7,144	1,907	3,427
0.30-0.39.....	...	6	...	...	1								
0.40-0.49.....	...	6	1	1	...	278	215	33	9	64	119	19	79
0.50-0.59.....	...	7	...	...	1								
0.60-0.69.....	...	6	...	...	1	97	214	26	8	53	123	51	427
0.70-0.79.....	...	4	...	...	...					
0.80-0.89.....	...	1	...	...	1	...	...	...	...	...	...	...	...
0.90-0.99.....	...	...	...	...	...			
1.00 and over.....	2	15	...	1	...	271	147	80	11	175	322	50	188
Unclassified ².....	...	95	...	1	1	369	321	...	...	...	...	...	110

¹Includes figures for employees at central offices, which were not classified by ratio of wages and salaries to value added.²Represents establishments reporting less than \$500 for wages and salaries.

Table 10.—HORSEPOWER OF POWER EQUIPMENT USED IN THE FERRO-ALLOY ORES, EXCEPT
(For explanation of column

	Industry, geographic division, and type of operation	Aggregate horsepower per production worker	Aggregate horsepower (prime movers and electric motors driven by purchased energy)				
			Total	Loading equipment	Transportation equipment		All other equipment
					Highway type	Other	
MANGANESE ORES INDUSTRY							
1	United States, total.....	47	105,611	13,945	27,144	14,723	49,799
Geographic Division							
2	Middle Atlantic, West North Central, and South Atlantic.....	39	12,922	4,068	3,185	1,700	3,969
3	East South Central.....	38	5,767	1,213	1,630	540	2,384
4	West South Central.....	36	5,161	750	3,053	820	538
5	Mountain.....	47	72,107	6,125	16,007	10,178	39,797
6	Pacific.....	(¹)	9,654	1,789	3,269	1,485	3,111
Type of Operation							
7	Producing establishments, total.....	46	102,384	13,400	25,904	14,383	48,697
8	Open-pit mines.....	45	35,980	6,970	13,045	4,019	11,946
9	Combination open-pit and underground mines.....	71	14,668	3,175	4,230	810	6,453
10	Underground mines.....	42	40,672	2,971	8,246	9,174	20,281
11	Beneficiating plants only ²	44	11,064	284	383	380	10,017
12	Nonproducing establishments.....	75	3,227	545	1,240	340	1,102
TUNGSTEN ORES INDUSTRY							
13	United States, total.....	59	156,190	12,738	47,447	7,552	88,453
Geographic Division							
14	South Atlantic.....	11	5,623	450	785	838	3,550
15	Mountain.....	61	88,837	6,939	25,639	4,994	51,265
16	Pacific.....	(¹)	61,730	5,349	21,023	1,720	33,638
Type of Operation							
17	Producing establishments, total.....	58	151,071	12,418	45,212	7,217	86,224
18	Open-pit mines.....	(¹)	15,021	2,696	7,180	725	4,420
19	Combination open-pit and underground mines.....	78	80,647	6,357	20,310	3,036	50,944
20	Underground mines.....	37	49,893	2,917	16,887	3,144	26,945
21	Treatment plants only ²	48	5,510	448	835	312	3,915
22	Nonproducing establishments.....	(¹)	5,119	320	2,235	335	2,229
MOLYBDENUM ORES AND FERRO-ALLOY ORES (EXCEPT VANADIUM), NOT ELSEWHERE CLASSIFIED, INDUSTRIES							
23	United States, total.....	55	106,519	23,346	18,256	11,365	53,552
Type of Operation							
24	Producing establishments, total.....	55	103,686	22,648	17,226	11,325	52,487
25	Open-pit mines.....	(¹)	14,755	2,052	4,978	4,374	3,351
26	Combination open-pit and underground mines.....	(¹)	3,686	387	1,352	786	1,161
27	Underground mines.....	47	82,535	20,156	9,711	5,945	46,723
28	Treatment plants only.....	(¹)	2,710	53	1,185	220	1,252
29	Nonproducing establishments.....	89	2,833	698	1,030	40	1,065

(D) Withheld to avoid approximately disclosing figures for individual companies.

¹See table 3, footnote 5.²Includes plants with nonproducing mines.

VANADIUM INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND TYPE OF OPERATION: 1954

captions, see INTRODUCTION)

Prime movers (horsepower)							Electric motors (horsepower)						
Total	By type of equipment				By use		Total	By type of equipment			By source of energy		
	Loading equipment	Transportation equipment		All other equipment	Driving generators	Not driving generators		Loading equipment	Transportation equipment	All other equipment	Driven by purchased energy	Driven by energy generated at the establishment	
		Highway type	Other										
64,966	13,136	27,144	6,984	17,702	5,311	59,655	42,403	949	7,739	33,715	40,645	1,758	1
11,065	4,068	3,185	1,700	2,112	860	10,205	(D)	...	...	(D)	1,857	(D)	2
4,704	1,213	1,630	540	1,321	400	4,304	(D)	...	...	(D)	1,063	(D)	3
5,111	700	3,053	820	538	...	5,111	50	50	...	...	50	...	4
34,722	5,366	16,007	2,439	10,910	3,601	31,121	38,536	759	7,739	30,038	37,385	1,151	5
9,364	1,789	3,269	1,485	2,821	450	8,914	662	140	...	522	290	372	6
62,226	12,591	25,904	6,644	17,087	4,941	57,285	41,916	949	7,739	33,228	40,158	1,758	7
29,317	6,920	13,045	4,017	5,335	1,326	27,991	7,188	50	2	7,136	6,663	525	8
13,942	3,175	4,230	810	5,727	2,830	11,112	1,754	140	...	1,614	726	1,028	9
17,331	2,336	8,246	1,629	5,120	220	17,111	23,426	635	7,545	15,246	23,341	85	10
1,636	160	383	188	905	565	1,071	9,548	124	192	9,232	9,428	120	11
2,740	545	1,240	340	615	370	2,370	487	...	...	487	487	...	12
106,231	11,306	47,447	5,272	42,206	18,639	87,592	59,283	1,707	2,281	55,295	49,959	9,324	13
1,748	450	785	143	370	413	1,335	3,875	...	695	3,180	3,875	...	14
63,340	6,607	25,639	4,039	27,055	13,207	50,133	32,234	562	956	30,716	25,497	6,737	15
41,143	4,249	21,023	1,090	14,781	5,019	36,124	23,174	1,145	630	21,399	20,587	2,587	16
101,298	10,986	45,212	4,937	40,163	17,559	83,739	59,097	1,707	2,281	55,109	49,773	9,324	17
14,252	2,607	7,180	722	3,743	1,145	13,107	1,309	104	3	1,202	769	540	18
42,823	5,019	20,310	1,654	15,840	4,513	38,310	39,870	1,383	1,382	37,105	37,824	2,046	19
41,352	2,912	16,887	2,249	19,304	11,051	30,301	14,994	220	896	13,878	8,541	6,453	20
2,871	448	835	312	1,276	850	2,021	2,924	...	...	2,924	2,639	285	21
4,933	320	2,235	335	2,043	1,080	3,853	186	...	...	186	186	...	22
34,007	3,855	18,256	5,631	6,265	2,046	31,961	74,185	20,228	5,734	48,223	72,512	1,673	23
31,174	3,157	17,226	5,591	5,200	1,411	29,763	73,481	19,551	5,734	48,196	72,512	969	24
13,492	2,052	4,978	4,318	2,144	520	12,972	1,775	...	62	1,922	1,263	512	25
3,552	387	1,352	780	1,033	263	3,289	209	...		{	134	75	26
11,950	665	9,711	273	1,301	228	11,722	70,867	19,551	5,672	45,644	70,585	282	27
2,180	53	1,185	220	722	400	1,780	630	...	...	630	530	100	28
2,833	698	1,030	40	1,065	635	2,198	704	677	...	27	...	704	29

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 11.—NUMBER OF POWER LOADING MACHINES IN THE FERRO-ALLOY ORES, EXCEPT VANADIUM,

Type of loading equipment		Manganese ores industry						
		United States		Middle Atlantic, West North Central, and South Atlantic	East South Central	West South Central	Mountain	Pacific
		1954	1939 ¹					
1	Surface loading equipment, total ²	136	11	37	12	7	59	21
2	By kind of power used:							
3	Electric and Diesel-electric.....	9	2	...	...	1	8	...
4	Diesel.....	73	9	31	12	6	16	8
4	Gasoline and other.....	54		6	...	...	35	13
5	Power shovels, total.....	51	7	16	11	5	15	4
6	By kind of power used:							
7	Diesel.....	35	7	11	11	5	6	2
7	Gasoline and other.....	16		5	...	...	9	2
8	By dipper or bucket capacity (cubic yards):							
9	Less than 3.....	51	6	16	11	5	15	4
9	3-5 inclusive.....	...	1	...	...	...	...	...
10	Dragline excavators, total.....	13	1	4	...	...	8	1
11	By kind of power used:							
12	Electric and Diesel-electric.....	1	...	...	...	...	1	...
13	Diesel.....	4	1	4	...	...	...	...
13	Gasoline and other.....	8		...	...	...	7	1
14	By dipper or bucket capacity (cubic yards):							
15	Less than 3.....	11	1	3	...	...	7	1
15	3-5 inclusive.....	2	...	1	...	...	1	...
16	Scraper loaders, total.....	50	1	7	1	2	24	16
17	By kind of power used:							
18	Electric and Diesel-electric.....	3	...	...	...	1	2	...
19	Diesel.....	24	1	6	1	1	10	6
19	Gasoline and other.....	23		1	...	...	12	10
20	By rated horsepower:							
21	Less than 10.....	7	...	...	...	1	3	3
22	10-25 inclusive.....	10	1	...	...	...	8	2
23	26-100 inclusive.....	28	...	4	1	1	12	10
23	More than 100.....	5	...	3	...	...	1	1
24	Cranes and hoists, total.....	10	...	...	...	...	10	...
25	By kind of power used:							
26	Electric and Diesel-electric.....	5	...	...	...	...	5	...
27	Diesel.....	...	...	...	...	...	...	...
27	Gasoline and other.....	5	...	...	...	...	5	...
28	Pumps, total.....	10	...	10	...	...	...	...
29	By kind of power used:							
30	Electric and Diesel-electric.....	...	...	...	...	...	...	...
31	Diesel.....	10	...	10	...	...	...	...
31	Gasoline and other.....	...	...	...	...	...	...	...
32	Dredges (electric and Diesel-electric).....	...	...	...	...	...	...	...
33	All other types of equipment.....	2	2	...	...	...	2	...
34	By kind of power used:							
35	Electric and Diesel-electric.....	...	2	...	...	...	...	...
36	Diesel.....	...	...	...	...	...	...	...
36	Gasoline and other.....	2	...	...	...	...	2	...

See footnotes at end of table.

INDUSTRIES IN THE UNITED STATES: 1954 AND 1939, AND BY GEOGRAPHIC DIVISIONS: 1954

Tungsten ores industry					Molybdenum ores and ferro-alloy ores (except vanadium), not elsewhere classified, industries				
United States		South Atlantic	Mountain	Pacific	United States		Mountain	Pacific	
1954	1939 ¹				1954	1939 ¹			
120	15	...	70	50	57	2	16	41	1
5 74 41	9 6	... ... ...	2 49 19	3 25 22	5 25 27	... 2	5 3 8	... 22 19	2 3 4
52	4	...	31	21	25	2	7	18	5
35 17	4	... ...	22 9	13 8	10 15	2	3 4	7 11	6 7
47 5	4 ...	... ...	26 5	21 ...	24 1	2 ...	6 1	18 ...	8 9
13	1	...	7	6	2	...	...	2	10
1 5 7	... 1	... ... ...	... 4 3	1 1 4	... 2 ...	... ... ...	... ... ...	... 2 ...	11 12 13
13 ...	1 ...	... ...	7 ...	6 ...	2 ...	... ...	... ...	2 ...	14 15
44	...	...	22	22	24	...	3	21	16
4 25 15	... ... ...	... ... ...	2 15 5	2 10 10	... 13 11	... ... ...	... ... 3	... 13 8	17 18 19
7 10 22 5	... ... ... ...	... ... ... ...	3 5 13 1	4 5 9 4	4 5 14 1	... ... ... ...	2 ... 1 ...	2 5 13 1	20 21 22 23
1	1	...	1	...	4	...	4	...	24
... 1 ...	... 1	... ... ...	... 1 ...	... ... ...	3 ... 1	... ... ...	3 ... 1	... ... ...	25 26 27
...	9	...	...	...	...	...	...	...	28
...	9	...	...	...	...	...	...	...	30
...	...	...	...	...	...	...	...	...	31
...	...	...	...	...	...	...	...	...	32
...	...	...	...	...	2	...	2	...	33
10	...	...	9	1	...	...	...	...	34
... 8 2	... ... ...	... ... ...	... 7 2	... 1 ...	... ... ...	... ... ...	... ... ...	... ... ...	34 35 36

Table 11.—NUMBER OF POWER LOADING MACHINES IN THE FERRO-ALLOY ORES, EXCEPT VANADIUM,

Type of loading equipment	Manganese ores industry						
	United States		Middle Atlantic, West North Central, and South Atlantic	East South Central	West South Central	Mountain	Pacific
	1954	1939 ¹					
1 Underground loading equipment, total.....	147	1	3	...	...	137	7
2 By kind of power used:							
3 Compressed air.....	102	1	3	...	...	92	7
4 Electric and Diesel-electric.....	41	...	...	...	...	41	...
5 Diesel.....	2	...	...	...	...	2	...
6 Gasoline and other.....	2	...	...	...	...	2	...
6 Shovel loaders requiring a minimum working height of 8 feet or less, total.....	48	...	...	...	...	45	3
7 By kind of power used:							
8 Compressed air.....	48	...	...	...	...	45	3
8 Gasoline and other.....	...	...	...	...	...	...	...
9 Shovel loaders requiring a minimum working height of more than 8 feet, total.....	6	...	...	...	...	6	...
10 By kind of power used:							
11 Compressed air.....	5	...	...	...	...	5	...
12 Electric and Diesel-electric.....	...	...	...	...	...	...	...
13 Diesel.....	...	...	...	...	...	...	...
13 Gasoline and other.....	1	...	...	...	...	1	...
14 Scraper loaders (including slushers), total.....	92	1	3	...	...	85	4
15 By kind of power used:							
16 Compressed air.....	49	1	3	...	...	42	4
17 Electric and Diesel-electric.....	41	...	...	...	...	41	...
18 Diesel.....	2	...	...	...	...	2	...
18 Gasoline and other.....	...	...	...	...	...	...	...
19 By rated horsepower:							
20 Less than 10.....	42	1	...	...	...	41	1
21 10-25 inclusive.....	40	...	2	...	...	37	1
22 26-100 inclusive.....	10	...	1	...	...	7	2
22 More than 100.....	...	...	...	...	...	...	...
23 Other types of equipment (gasoline and other).....	1	...	...	...	...	1	...

¹For producing operations only.²In addition, 61 bulldozers were reported for the manganese ores industry, 24 for the tungsten ores industry, and 47 for the remaining ferro-alloy ores industries.

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[illegible]

MINERAL INDUSTRIES--INDUSTRY STATISTICS

Table 12A.—MATERIALS, SUPPLIES, FUELS, AND ELECTRIC ENERGY USED IN
(For explanation of line

Item	Unit of measure for quantity	United States, total		East and South		Mountain, total	
		Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
1 Crude manganese ores beneficiated, total.....	1,000 long tons.....	1,238	xxx	364	xxx	851	xxx
2 Mined and beneficiated at the same establishment...	...do.....	¹ 863	xxx	364	xxx	529	xxx
3 Received from other establishments.....	...do.....	375	5,382			322	4,492
4 Supplies used, total.....	.....	xxx	5,087	xxx	1,429	xxx	4,457
5 Explosives.....	1,000 pounds.....	1,208	281	37	7	1,060	253
6 Steel mill shapes and forms.....	Short tons.....	1,033	172	209	32	809	136
7 All other supplies.....	.....	xxx	4,634	xxx	(D)	xxx	4,068
8 Fuels used, total.....	Million kwh equivalent.	398	721	51	² 240	335	496
9 Bituminous coal.....	1,000 short tons.....	1	8	(³)	1	1	7
10 Fuel oil ⁴	1,000 barrels.....	76	334	15	90	58	228
11 Natural gas ⁵	Million cu. ft.....	633	131	...	...	629	129
12 Other fuels.....	.....	xxx	248	xxx	xxx	xxx	132
13 Electric energy purchased.....	Million kwh.....	79	477	3	149	76	414
14 Electric energy generated and used.....	...do.....	2	xxx	...	xxx	1	xxx

xxx Not applicable.

¹ Withheld to avoid approximately disclosing figures for individual companies.² In addition, between 200,000 and 250,000 long tons of concentrate fines were agglomerated. No concentrate fines were shipped to other plants for agglomeration.³ The cost of electric energy purchased is included with the cost of fuels.⁴ Less than one-half of the unit of measure specified.⁵ Includes approximately 31,000 barrels of distillate fuel oil valued at \$179,000. Establishments reporting residual fuel oil or the consumption of both distillate and residual fuel oil accounted for the balance.⁶ See table 3A, footnote 6.Table 12B.—MATERIALS, SUPPLIES, FUELS, AND ELECTRIC ENERGY USED IN
(For explanation of line

Item	Unit of measure for quantity	United States, total		South Atlantic		Mountain, total	
		Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
1 Ore, tailings, and concentrates treated, total.....	1,000 short tons.....	2,056	xxx	288	xxx	1,229	xxx
2 Units of WO ₃ contained.....	1,000.....	1,136	xxx	173	xxx	629	xxx
Mined or recovered and treated at the same establishment:							
3 Crude ore.....	1,000 short tons.....	1,632	xxx	288	xxx	930	xxx
4 Units of WO ₃ contained.....	1,000.....	805	xxx	173	xxx	426	xxx
5 Tailings.....	1,000 short tons.....	155	xxx	...	xxx	136	xxx
6 Units of WO ₃ contained.....	1,000.....	20	xxx	...	xxx	17	xxx
7 Received from other establishments of same company or purchased.....	1,000 short tons.....	143	8,118	...	...	¹ 163	¹ 6,562
8 Units of WO ₃ contained.....	1,000.....	199	xxx	...	...	¹ 186	xxx
9 Received for treatment on a custom basis.....	1,000 short tons.....	126	2,773	...	...	(¹)	(¹)
10 Units of WO ₃ contained.....	1,000.....	112	xxx	...	...	(¹)	xxx
11 Supplies used, total.....	.....	xxx	8,295	xxx	484	xxx	3,810
12 Explosives.....	1,000 pounds.....	4,038	765	638	112	2,334	460
13 Steel mill shapes and forms.....	Short tons.....	2,490	475	503	90	1,094	201
14 All other supplies.....	.....	xxx	² 7,055	xxx	282	xxx	² 3,149
15 Fuels used, total.....	Million kwh equivalent.	310	933	7	27	165	540
16 Bituminous coal.....	1,000 short tons.....	(⁴)	1	...	...	(⁴)	1
17 Distillate fuel oil.....	1,000 barrels.....	³ 119	³ 569	2	15	50	283
18 Residual fuel oil.....	...do.....	5	16	...	...	5	16
19 Natural gas.....	Million cu. ft.....	46	13	...	...	45	13
20 Other fuels.....	.....	xxx	334	xxx	12	xxx	227
21 Electric energy purchased.....	Million kwh.....	61	753	13	128	29	415
22 Electric energy generated and used.....	...do.....	20	xxx	...	xxx	16	xxx

xxx Not applicable.

¹ Receipts for treatment on a custom basis are combined with receipts from other establishments of the same company and purchases.² See table 3B, footnote 6.³ Includes approximately 45,000 barrels of fuel oil, valued at \$151,000, for establishments reporting figures for distillate and residual fuel oil combined.⁴ Less than one-half of the unit of measure specified.

captions, see INTRODUCTION)

Mountain--Continued						Pacific		
Montana		Nevada		Other states				
Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	
322	xxx	261	xxx	268	xxx	23	xxx	1
322	xxx	261	xxx	268	xxx	23	xxx	2
	5,155		3,259		535		91	3
xxx		xxx		xxx		xxx		4
531	148	9	2	520	103	111	21	5
408	67	82	18	319	51	15	4	6
xxx	(D)	xxx	(D)	xxx	(D)	xxx	(D)	7
209	178	82	168	44	150	12	248	8
1	7	...	...	...	...	...	...	9
4	29	46	155	8	44	3	16	10
(D)		...	...	(D)		4	2	11
xxx	142	xxx	13	xxx	106	xxx		12
36	220	37	161	3	28	(³)	30	13
...	xxx	...	xxx	1	xxx	1	xxx	14

captions, see INTRODUCTION)

Mountain--Continued				Pacific				
Nevada		Other states		Total		California		
Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	
818	xxx	411	xxx	539	xxx	536	xxx	1
390	xxx	239	xxx	334	xxx	332	xxx	2
677	xxx	253	xxx	414	xxx	411	xxx	3
317	xxx	109	xxx	206	xxx	204	xxx	4
3	xxx	133	xxx	19	xxx	19	xxx	5
1	xxx	16	xxx	3	xxx	3	xxx	6
¹ 138	¹ 1,792	14	3,154	¹ 106	¹ 4,329	¹ 106	¹ 4,329	7
¹ 72	xxx	69	xxx	¹ 125	xxx	¹ 125	xxx	8
(¹)	(¹)	11	1,616	(¹)	(¹)	(¹)	(¹)	9
(¹)	xxx	45	xxx	(¹)	xxx	(¹)	xxx	10
xxx	2,830	xxx	980	xxx	4,001	xxx	3,988	11
1,933	373	401	87	1,066	193	1,051	189	12
612	120	482	81	893	184	893	184	13
xxx	² 2,337	xxx	² 812	xxx	3,624	xxx	3,615	14
119	406	46	134	138	366	136	356	15
(⁴)	1	...	...	...	...	...	...	16
49	264	6	35	³ 67	³ 271	³ 67	³ 270	17
...	...	45	13	...	...	...	...	18
xxx	141	xxx	86	1	(⁴)	1	(⁴)	19
21	280	8	135	19	210	19	209	20
16	xxx	...	xxx	4	xxx	4	xxx	21

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 12C.—MATERIALS, SUPPLIES, FUELS, AND ELECTRIC ENERGY USED IN THE MOLYBDENUM ORES AND FERRO-ALLOY ORES (EXCEPT VANADIUM), NOT ELSEWHERE CLASSIFIED INDUSTRIES, BY STATE: 1954

(For explanation of line captions, see INTRODUCTION)

Item	Unit of measure for quantity	Total		Chromium ores subindustry						Other industries and subindustries ¹	
				Total		California		Other States			
		Quan- tity	Cost (\$1,000)	Quan- tity	Cost (\$1,000)	Quan- tity	Cost (\$1,000)	Quan- tity	Cost (\$1,000)	Quan- tity	Cost (\$1,000)
Ores and concentrates treated, total...	1,000 short tons..	(D)	xxx	355	xxx	(D)	xxx	(D)	xxx	(D)	xxx
Mined and treated at the same establishment.....	....do.....	(D)	xxx	329	xxx	(D)	xxx	(D)	xxx	(D)	xxx
Received from other establishments of same company or purchased.....	....do.....	7	125	7	125	} 23	400	3	61	...	...
Received for treatment on a custom basis.....	....do.....	19	336	19	336						
Supplies used, total.....	.....	xxx	9,853	xxx	1,151	xxx	341	xxx	810	xxx	8,702
Explosives.....	1,000 pounds.....	6,025	1,157	673	196	35	7	638	189	5,352	961
Steel mill shapes and forms.....	Short tons.....	6,357	855	4,455	301	(D)	} 334	(D)	} 621	1,902	554
All other supplies.....	.....	xxx	7,841	xxx	654	xxx		xxx		xxx	7,187
Fuels used, total.....	Million kwh equivalent.....	113	357	34	123	18	68	16	55	79	234
Bituminous coal.....	1,000 short tons..	2	19	...	...	...	...	...	...	2	19
Fuel oil.....	1,000 barrels.....	² 30	162	8	49	2	11	6	38	22	113
Natural gas.....	Million cu. ft....	4	...	4	...	4	...	...	...	...	...
Other fuels.....	.....	xxx	176	xxx	74	xxx	57	xxx	17	xxx	102
Electric energy purchased.....	Million kwh.....	167	1,289	13	113	1	16	12	97	154	1,176
Electric energy generated and used.....	....do.....	1	xxx	...	xxx	...	xxx	...	xxx	1	xxx

xxx Not applicable.

D Withheld to avoid approximately disclosing figures for individual companies.

¹See table 1, footnote 3.²Separate figures for distillate and residual fuel oil are not available; establishments reporting figures for distillate and residual fuel oil combined account for more than two-thirds of the total quantity shown.

Table 13.--WATER USE IN THE FERRO-ALLOY ORES, EXCEPT VANADIUM, INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES AND BY TYPE OF OPERATION: 1954

(For explanation of column captions, see INTRODUCTION)

Industry, Geographic Division, State, and Type of Operation	Number of production and development workers	Value added in mining (\$1,000)	Water intake (except mine water)			Water discharged (except mine water) (Million gallons)	Mine water (million gallons)		Gross water use, including recirculation (Million gallons)	Percent of total water intake (except mine water) by principal source						
			Million gallons	Million gallons per production worker ¹	Gallons per dollar value added		Used	Drained and discharged		Public water systems	Company surface water systems	Company ground water systems	Combined public water and company ground water systems	Combined company surface and ground water systems	Not specified	
MANGANESE ORES INDUSTRY																
United States, total.....	2,266	18,118	2,766	1.22	153	1,753	68	601	3,858	39	17	6	38	...	...
Geographic Division and State																
East and South, total..	627	3,483	723	1.15	208	683	44	54	1,165	19	61	4	...	16	...	
Tennessee.....	151	794	444	2.94	559	429	...	...	771	32	63	...	...	5	...
Arkansas.....	144	881	144	1.00	164	128	14	14	175	...	19	17	...	64	...	
Other States.....	332	1,808	135	0.41	75	126	30	40	219	1	97	2	...	...	...
Mountain.....	1,532	13,513	1,984	1.30	147	1,011	24	547	2,617	46	2	5	...	47	...	
Montana.....	880	4,957	1,042	1.18	210	843	23	546	1,336	10	...	...	...	90	...
New Mexico.....	206	1,614	153	0.74	95	148	1	1	163	24	20	56	...	...	...
Arizona.....	196	2,519	17	(²)	7	14	...	...	32	...	24	76	...	...	...
Nevada.....	229	4,220	772	3.37	183	6	...	...	1,086	100	...	...	...	...	...
Other States.....	21	203	...	...	...	...	...	...	...	...	...	...	...	...	...
Pacific.....	107	1,122	59	(²)	53	59	...	...	76	29	2	69	...	...	...
Type of Operation																
Producing establishments, total.....	2,223	18,020	2,747	1.24	152	1,738	68	601	3,839	39	17	6	...	38	...	
Mines only ³	965	7,608	9	(²)	1	7	10	218	19	89	11	...	...	...	...
Open-pit mines...	95	1,212	...	...	...	...	...	...	...	...	...	...	...	...	...
Combination open-pit and underground mines....	61	736	...	...	...	...	10	10	10	...	...	...	...	...	...
Underground mines	809	5,660	9	0.01	2	7	...	208	9	89	11	...	...	...	...
Mines with beneficiating plants...	1,009	9,182	1,619	1.60	176	825	58	383	2,138	56	27	10	...	7	...	
Open-pit mines...	704	6,819	1,438	2.04	211	647	34	44	1,904	56	28	8	...	8	...	
Combination open-pit and underground mines....	146	821	75	0.51	91	74	...	...	100	...	41	59	...	...	...
Underground mines	159	1,542	106	0.67	69	104	24	339	134	95	5	...	...	...	...
Beneficiating plants only ⁴	249	1,230	1,119	4.49	910	906	...	...	1,682	15	1	1	...	83	...
Nonproducing establishments.....	43	98	19	0.44	194	15	...	...	19	...	100	...	...	...	...
Producing beneficiating plants (with or without mines), by principal beneficiation method:																
Logwashing.....	206	994	266	1.29	268	263	4	4	270	...	91	9	...	...	...
Jigging.....	210	1,489	240	1.14	161	227	54	64	354	47	(⁷)	14	...	39	...	
Heavy density separation.....	193	1,480	343	1.78	232	323	...	...	654	51	29	20	...	...	...
Agglomeration ⁵	435	4,732	1,802	4.14	381	833	...	...	2,412	42	6	...	...	52	...
Other ⁶	214	1,717	87	0.41	51	85	...	315	130	14	11	47	...	28	...	
TUNGSTEN ORES INDUSTRY																
United States, total.....	2,635	40,746	3,040	1.15	74	2,888	340	2,076	4,913	1	53	40	1	4	1	
Geographic Division and State																
South Atlantic (North Carolina).....	501	8,906	566	1.13	63	557	32	45	1,500	...	100	...	...	...	...
Mountain.....	1,454	21,614	1,902	1.31	87	1,770	33	189	2,495	1	32	59	2	5	1	
Montana.....	(D)	1,857	240	(D)	129	234	...	...	240	...	60	...	...	40	...
Colorado.....	99	1,122	188	(²)	167	188	4	34	279	1	88	...	...	...	11
Arizona.....	(D)	581	24	(D)	41	24	4	24	34	...	8	50	...	...	42
Nevada.....	1,024	15,494	1,186	1.16	76	1,063	25	131	1,678	1	4	92	3	...	...
Other States.....	180	2,560	264	1.47	103	261	...	...	264	1	93	6	...	...	...
Pacific.....	680	10,226	572	(²)	55	561	275	1,842	918	3	76	15	...	6	...	
California.....	657	10,180	570	(²)	56	559	275	1,842	915	3	76	15	...	6	...	

See footnotes at end of table.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 13.—WATER USE IN THE FERRO-ALLOY ORES, EXCEPT VANADIUM, INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES AND BY TYPE OF OPERATION: 1954—Continued

(For explanation of column captions, see INTRODUCTION)

Industry, Geographic Division, State, and Type of Operation	Number of production and development workers	Value added in mining (\$1,000)	Water intake (except mine water)			Water discharged (except mine water) (Million gallons)	Mine water (million gallons)		Gross water use, including recirculation (Million gallons)	Percent of total water intake (except mine water) by principal source					
			Million gallons	Million gallons per production worker ¹	Gallons per dollar value added		Used	Drained and discharged		Public water systems	Company surface water systems	Company ground water systems	Combined public water and company ground water systems	Combined company surface and ground water systems	Not specified
Type of Operation															
Producing establishments, total.....	2,598	40,694	3,040	1.17	75	2,888	340	2,076	4,913	1	53	40	1	4	1
Mines only ²	405	4,138	21	(²)	5	17	...	89	24	...	100	...	...	...	...
Open-pit mines...	30	357	3	(²)	9	3	...	...	6	...	100	...	...	...	...
Combination open-pit and underground mines....	111	1,087	16	0.14	14	14	...	37	16	...	100	...	...	...	...
Underground mines	264	2,694	2	(²)	1	...	...	52	2	...	100	...	...	...	...
Mines with treatment plants.....	2,078	35,371	2,805	1.30	77	2,661	340	1,987	4,647	(⁷)	50	42	2	5	1
Open-pit mines...	73	852	182	(²)	207	181	5	5	274	1	76	12	...	...	11
Combination open-pit and underground mines....	925	15,823	899	0.97	56	866	299	1,892	1,489	...	35	51	...	14	...
Underground mines	1,080	18,696	1,724	1.50	89	1,614	36	90	2,884	1	55	41	2	...	1
Treatment plants only ⁴	115	1,185	214	1.93	176	210	...	...	242	10	84	6	...	...	...
Nonproducing establishments.....	37	52	...	...	...	...	...	...	...	...	...	...	...	...	...
Producing treatment plants (with or without mines), by principal treatment method:															
Flotation.....	571	9,640	596	1.04	62	585	275	1,867	872	...	47	53	...	...	...
Straight gravity....	261	2,089	635	(²)	304	634	4	25	765	2	70	21	...	2	5
Gravity and flotation.....	1,258	23,413	1,748	1.39	75	1,615	61	85	3,211	1	47	43	2	7	...
Primitive methods ⁵ ...	3	291	4	(²)	14	4	...	...	4	25	75	...	...	...	...
Other methods ⁶	100	1,123	36	0.36	32	33	...	10	37	11	86	...	...	...	3
MOLYBDENUM ORES AND FERRO-ALLOY ORES, EXCEPT VANADIUM, NOT ELSEWHERE CLASSIFIED, INDUSTRIES															
United States, total.....	1,937	48,537	1,232	0.64	25	392	215	30	4,788	1	95	3	...	(⁷)	1
Type of Operation															
Producing establishments, total.....	1,905	48,391	1,232	0.65	25	392	215	30	4,788	1	95	3	...	(⁷)	1
Mines only ²	100	1,295	2	(²)	2	...	...	...	2	...	...	...	...	...	100
Open-pit mines...	51	903	...	...	...	...	...	...	...	...	...	...	...	...	...
Combination open-pit and underground mines....	6	93	...	...	...	...	...	...	...	...	...	...	...	...	...
Underground mines	43	299	2	0.65	7	...	...	...	2	...	...	...	...	...	100
Mines with treatment plant.....	1,797	46,994	1,200	0.67	26	365	215	30	4,744	1	95	3	...	(⁷)	1
Open-pit mines...	79	888	95	(²)	107	95	...	...	233	11	37	42	...	1	9
Open-pit and underground mines....	13	177	16	(²)	90	15	...	7	35	...	100	...	...	...	...
Underground mines	1,705	45,929	1,089	0.64	24	255	215	23	4,476	...	100	...	...	...	...
Treatment plants only.....	8	102	30	(²)	294	27	...	...	42	7	83	...	...	...	10
Nonproducing establishments.....	32	146	...	...	...	...	...	...	...	...	...	...	...	...	...

¹For computations of water intake per production worker, including mine water used, see tables 3 and 4.²See table 3A, footnote 5.³Includes mines with nonproducing plants.⁴Includes plants with nonproducing mines.⁵See table 4A, footnote 7.⁶See table 4A, footnote 8.⁷Less than 0.5 percent.⁸See table 4B, footnote 2.⁹See table 4B, footnote 7.

Metal Mining Contract Services

This report shows 1954 Census of Mineral Industries statistics for establishments classified in Industry 1081, Metal Mining Contract Services. Industry 1081 comprises establishments primarily engaged in performing contract services for the metal mining industries, such as prospecting, mine exploration, and development work, including the removal of overburden, sinking shafts, and diamond drilling.

Establishments primarily engaged in contract construction or in performing hauling services for mineral industries are not included in the Mining Division for 1954, according to the Standard Industrial Classification, and were not covered in the 1954 minerals census. In 1939, contract construction also was excluded, but contractors hauling overburden or waste to a waste dump and hauling minerals to a primary preparation plant were included.

Companies which had complete responsibility for operating mines for others on a contract basis were requested to report as mine operators. Data for such activities are excluded from this report, but are included with other figures for mining establishments in the appropriate industry reports. No data were obtained on the receipts for such services. This report, however, includes data on mining for the account of others where such mining merely supplements activities of the mine operator.

Establishments classified in the metal mining contract services industry filed one report for all mining contract services performed in the United States. Establishments were classified on the basis of the principal industry for which the service was performed, the principal State in which the service was performed, and the principal kind of work performed. As a rule, there is a relatively high degree of concentration of contractors' activities in particular industries, States, and kinds of work. This is shown in Tables 3 and 4.

The total receipts in the metal mining contract services industry in 1954 amounted to \$38.7 million, of which \$37.4 million was receipts for services primary to this industry, \$1.2 million was for hauling and other contract services not classified in this

industry, and \$0.1 million was for products purchased and resold without further processing.

The contract services covered in this report represent about 33 percent of all contract services performed for the industries in Major Group 10, Metal Mining. In addition, contractors classified in Industries 1331, Drilling Oil and Gas Wells, and 1339, Oil and Gas Field Contract Services, Not Elsewhere Classified, reported receipts of \$0.3 million for services for these industries. Operators of mining establishments in Major Group 10 reported receipts of \$1.7 million for contract services, probably principally for establishments classified in Major Group 10. These two sources of services increase the coverage of contract receipts by mineral establishments for work for establishments in Major Group 10 to only about 34 percent of the total payments for contract work by such establishments. However, this probably represents nearly complete coverage, in terms of total receipts for services, of the types of contract service operations classified in the mineral industries.

It seems likely that the balance of the contract payments, amounting to about \$76 million, represents primarily payments made to companies engaged in contract construction of mills and other facilities at mine properties. Capital expenditures for mill and other construction amounted to about \$84 million for establishments classified in Major Group 10. Establishments reporting large capital expenditures of this type usually also reported substantial payments to contractors, suggesting that a large part of such construction work was done by contractors. Some of the balance of contract payments reported by metal mining establishments was probably for hauling minerals which, as is the case for contract construction, is excluded from the 1954 minerals census. The following table summarizes for groups of industries the available data on payments and receipts for contract services of establishments included in the 1954 minerals census and the capital expenditures by mine operators in Major Group 10 for mill and other construction work.

PAYMENTS AND RECEIPTS FOR METAL MINING CONTRACT SERVICES AND AMOUNTS CAPITALIZED
FOR CONSTRUCTION AT METAL MINING ESTABLISHMENTS: 1954

Industry served	Cost of contract work as reported by mine operators (\$1,000)	Receipts for contract services reported in the minerals census (\$1,000)				Capital expenditures by mine operators for mill and other construction (\$1,000)
		Total	By metal mining contract services industry	By drilling oil and gas wells, and oil and gas field contract services, n.e.c., industries	By mine operators classified in metal mining industries	
Metal mining, total.....	115,003	39,332	37,398	267	1,667	84,313
Iron ores.....	47,515	10,282	9,532	135	615	32,790
Copper and gold ores.....	44,598	15,437	14,836	80	521	35,881
Lead and zinc ores.....	6,080	1,676	1,281	.....	395	2,054
Tungsten ores.....	1,885	194	186	.....	8	1,267
Other metallic ores.....	14,925	11,743	11,563	52	128	12,321

A portion of the metal mining contract services is performed in small establishments, occasionally without employees, and it is probable that the coverage of such operations in this report is less complete. The mailing lists available for conducting the 1954 minerals census may not have adequately identified such small operations as performing this type of service and some of

them may have been classified incorrectly or, if they had no employees, may have been omitted entirely from the census. As indicated in Table 6 for the reports received, 68 percent of the establishments had less than 10 employees. However, these establishments accounted for less than 7 percent of the receipts for services.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 1.—COMPARATIVE STATISTICS FOR THE METAL MINING CONTRACT SERVICES INDUSTRY IN THE UNITED STATES: 1954 AND 1939

(Contractors were requested to prepare one report for all mining contract services performed in the United States. These reports were classified on the basis of the principal industry for which the service was performed. For explanation of line captions and for statement on the minimum size of establishments included for each year, see INTRODUCTION)

Item	All metal mining contract services		Iron ores contract services		Copper ores and gold contract services		Lead and zinc ores contract services		Tungsten ores contract services		Other metal mining contract services ¹	
	1954	1939 ²	1954	1939	1954	1939 ³	1954	1939	1954	1939	1954	1939
Number of operating companies.....	114	69	20	6	8	38	19	18	3	3	64	4
Amount received or due for services ⁴.....\$1,000..	38,679	2,368	10,351	254	14,836	1,360	1,281	537	186	38	12,025	179
Exploration work, including geophysical and other exploratory surveying.....do....	914	(NA)	(D)	(NA)	...	(NA)	(D)	(NA)	21	(NA)	127	(NA)
Prospect, test, and other drilling, including blasting.....do....	10,363	(NA)	2,456	(NA)	750	(NA)	406	(NA)	...	(NA)	6,751	(NA)
Sinking mine shafts and driving mine tunnels.....do....	4,725	(NA)	1,790	(NA)	9,062	{ (NA)	(D)	(NA)	...	(NA)	1,125	(NA)
Stripping overburden.....do....	12,533	(NA)	3,367	(NA)		{ (NA)	...	(NA)	...	(NA)	(D)	(NA)
Mining minerals for others.....do....	8,113	(NA)	1,517	(NA)	5,024	(NA)	76	(NA)	165	(NA)	1,331	(NA)
Other services primary to the metal mining contract services industry.....do....	714	(NA)	112	(NA)	...	(NA)	5	(NA)	...	(NA)	597	(NA)
Hauling minerals and mine equipment beyond mine property and other services classified in other industries.....do....	1,177	(NA)	(D)	(NA)	...	(NA)	(D)	(NA)	...	(NA)	(D)	(NA)
Products purchased and resold without further processing.....do....	140	(NA)	...	(NA)	...	(NA)	...	(NA)	...	(NA)	140	(NA)
Value added in mining services.....do....	26,703	1,822	6,753	197	10,202	1,081	1,103	383	166	32	8,479	129
Number of persons engaged, total.....	3,141	744	823	116	955	332	175	213	28	12	1,160	71
Production and development workers.....	2,863	637	759	98	952	{ 287	156	{ 184	24	4	1,001	64
All other employees.....	196	58	51	11		{ 27		{ 16	...	...	116	4
Proprietors and firm members.....	82	49	13	7	3	18	19	13	4	8	43	3
Performing manual labor.....	55	28	7	2	1	10	13	6	2	7	32	3
Man-hours worked by production and development workers.....,1,000..	6,519	1,344	1,695	175	2,215	637	347	409	50	9	2,212	114
Principal expenses designated below, total..\$1,000..	27,595	⁵ 1,531	8,150	⁵ 209	9,751	⁵ 756	944	⁵ 400	117	⁵ 12	8,633	⁵ 154
Wages of production and development workers.....do....	13,933	853	3,848	128	5,024	{ 432	768	{ 212	96	6	4,406	75
Salaries of all other employees.....do....	1,335	132	361	24		{ 45		{ 34	...	...	765	29
Supplies.....do....	10,286	382	3,493	47	4,211	199	119	95	11	3	2,452	38
Products purchased for resale.....do....	126	(NA)	...	(NA)	...	(NA)	...	(NA)	...	(NA)	126	(NA)
Fuel.....do....	1,273	144	229	8	516	{ 76	35	{ 47	...	...	512	12
Purchased electric energy.....do....	133	20	79	2		{ 4		{ 12	10	2	23	...
Subcontract work.....do....	509	(NA)	140	(NA)	...	(NA)	20	(NA)	...	(NA)	349	(NA)
Purchased machinery installed.....do....	2,049	(NA)	383	(NA)	727	(NA)	20	(NA)	15	(NA)	904	(NA)
Capital expenditures, total.....do....	2,400	47	726	27	820	17	18	3	16	...	820	...
New construction and major alterations of fixed structures.....do....	523	(NA)	623	{ (NA)	641	{ (NA)	...	(NA)	...	(NA)	50	...
New machinery and equipment.....do....	1,522	(NA)		{ (NA)		{ (NA)	...	(NA)	...	(NA)	710	...
Used plant and equipment.....do....	355	(NA)	103	(NA)	179	(NA)	18	{ (NA)	16	{ (NA)	60	...
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	151,925	22,895	43,488	2,253	34,701	10,615	5,079	8,502	1,805	310	66,852	1,215
Per production worker.....	53	36	57	23	37	37	34	46	75	78	67	19
Prime movers.....	137,744	(NA)	34,531	(NA)	33,851	(NA)	3,604	(NA)	1,775	(NA)	63,983	(NA)
Electric motors driven by purchased energy.....	14,181	(NA)	8,957	(NA)	850	(NA)	1,475	(NA)	30	(NA)	2,869	(NA)
Horsepower rating of electric motors driven by energy generated at establishments.....	3,787	(NA)	32	(NA)	2,725	(NA)	...	(NA)	...	(NA)	1,030	(NA)
Energy used.....million kwh equivalent..	358	(NA)	66	(NA)	135	(NA)	10	(NA)	2	(NA)	145	(NA)
Coal.....1,000 short tons..	1	(NA)	1	(NA)	...	(NA)	...	(NA)	...	(NA)	...	(NA)
Fuel oils.....1,000 barrels..	115	(NA)	21	(NA)	(D)	(NA)	(D)	(NA)	(D)	(NA)	31	(NA)
Natural gas.....million cu. ft..	14	(NA)	...	(NA)	...	(NA)	...	(NA)	...	(NA)	14	(NA)
Other fuels.....\$1,000..	574	(NA)	83	(NA)	106	(NA)	32	(NA)	7	(NA)	346	(NA)
Electric energy purchased.....million kwh..	7	(NA)	3	(NA)	(D)	(NA)	(6)	(NA)	(D)	(NA)	2	(NA)
Electric energy generated and used.....do....	6	(NA)	(6)	(NA)	5	(NA)	...	(NA)	...	(NA)	1	(NA)

D Withheld to avoid approximately disclosing figures for individual companies. NA Not available. ¹For 1954 represents establishments principally performing services for the bauxite, manganese ores, molybdenum ores, chromium ores, titanium ores, uranium-radium-vanadium ores, and for unspecified metal ores industries; for 1939, for the bauxite, molybdenum ores, and vanadium and uranium ores industries. The amount received for contract work for unspecified metal ores industries in 1954 amounted to only 11 percent of the total receipts for this group. ²The 1939 Census report contains the results of the first census of the metal mining contract services industry in the United States. ³Includes 3 establishments which primarily performed services for the silver ores industry. No contract services establishments in 1954 principally served mines in the silver ores industry. ⁴Includes receipts for services not classified in these industries such as sinking mine shafts and driving mine tunnels for the bituminous coal industry; prospect and test drilling and sinking mine shafts and driving mine tunnels for the nonmetallic minerals (except fuels) industries; water well drilling; hauling; and receipts for products purchased and resold without further processing. See table 4. ⁵Excludes cost of "Subcontract work" and "Products purchased for resale." ⁶Less than 0.5 million kilowatt hours.

METAL MINING CONTRACT SERVICES

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Table 2.—COMPARATIVE STATISTICS, BY STATE: 1954 AND 1939

(These statistics are not available for this industry)

Table 3.—DETAILED STATISTICS FOR THE METAL MINING CONTRACT SERVICES INDUSTRY, BY INDUSTRY SERVED AND BY GEOGRAPHIC DIVISIONS AND STATES: 1954

(Contractors were requested to prepare one report for all the mining contract services performed in the United States. These reports were classified on the basis of the principal industry for which the service was performed and the principal State in which the service was performed. For explanation of line captions, see INTRODUCTION)

Item	United States					
	Total	By industries served				
		Iron ores	Copper and gold ores	Lead and zinc ores	Tungsten ores	Other metallic ores
Number of operating companies.....	114	20	8	19	3	64
Amount received or due for services, total ¹.....\$1,000..	38,679	10,351	14,836	1,281	186	12,025
Receipts for services in the specified State by contractors classified in that State as percent of line 2.....percent..	xxx	xxx	xxx	xxx	xxx	xxx
Receipts for services in the specified State by contractors classified in all States as percent of line 2 ³.....do....	xxx	xxx	xxx	xxx	xxx	xxx
Value added in mining services.....\$1,000..	26,703	6,753	10,202	1,103	166	8,479
Number of persons engaged, total.....	3,141	823	955	175	28	1,160
Number of employees, total.....	3,059	810	952	156	24	1,117
Number employed in the specified State by contractors classified in that State as percent of line 7 ⁴.....percent..	xxx	xxx	xxx	xxx	xxx	xxx
Number employed in the specified State by contractors classified in all States as percent of line 7 ⁴.....do....	xxx	xxx	xxx	xxx	xxx	xxx
Production and development workers.....	2,863	759	952	156	24	1,001
All other employees.....	196	51		...	...	116
Proprietors and firm members.....	82	13	3	19	4	43
Performing manual labor.....	55	7	1	13	2	32
Man-hours worked by production and development workers, total.....1,000..	6,519	1,695	2,215	347	50	2,212
Exploration work, including geophysical and other exploratory surveying.....do....	234	412	...	127	(D)	51
Stripping overburden.....do....	1,639			...	...	304
Mining minerals for others.....do....	1,101	169	1,621	3	(D)	237
Other work.....do....	3,545	1,114	594	217	...	1,620
Principal expenses designated below, total.....\$1,000..	27,595	8,150	9,751	944	117	8,633
Wages of production and development workers.....do....	13,933	3,848	5,024	768	96	4,406
Salaries of all other employees.....do....	1,335	361		...	...	765
Supplies.....do....	10,286	3,493	4,211	119	11	2,452
Products purchased for resale.....do....	126	...	...	...	...	126
Fuel.....do....	1,273	229	516	35	10	512
Purchased electric energy.....do....	133	79		2		23
Subcontract work.....do....	509	140	...	20	...	349
Purchased machinery installed.....do....	2,049	383	727	20	15	904
Capital expenditures, total.....do....	2,400	726	820	18	16	820
New construction and major alterations of fixed structures.....do....	523	623	641	...	...	50
New machinery and equipment.....do....	1,522		179	18	16	710
Used plant and equipment.....do....	355	103				60
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	151,925	43,488	34,701	5,079	1,805	66,852
Per production worker.....	53	57	37	34	75	67
Prime movers.....	137,744	34,531	33,851	3,604	1,775	63,983
Electric motors driven by purchased energy.....	14,181	8,957	850	1,475	30	2,869
Horsepower rating of electric motors driven by energy generated at the establishment.....	3,787	32	2,725	...	...	1,030
Energy used.....million kwh equivalent..	358	66	135	10	2	145
Coal.....1,000 short tons..	1	1	...	...	...	...
Fuel oils.....1,000 barrels..	115	21	(D)	(D)	(D)	31
Natural gas.....million cu. ft..	14	...	...	...	...	14
Other fuels.....\$1,000..	574	83	106	32	7	346
Electric energy purchased.....million kwh..	7	3	(D)	(⁶)	(D)	2
Electric energy generated and used.....do....	6	(⁶)	5	...	...	1
Water intake, including mine water used.....million gallons..	99	24	...	1	...	74
Per production worker.....do....	0.03	0.03	...	0.01	...	0.07

See footnotes at end of table.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 3.—DETAILED STATISTICS FOR THE METAL MINING CONTRACT SERVICES INDUSTRY, BY
(Contractors were requested to prepare one report for all the mining contract services performed in the United States. These reports were classified
tion of line captions,

Item		Middle Atlantic (New York, New Jersey, and Pennsylvania)	East North Central (Illinois and Michigan)	West North Central (Minnesota, Missouri, South Dakota, and Kansas)	South Atlantic (Virginia and Georgia)	South Central total, (Tennessee, Alabama, Arkansas, Oklahoma, and Texas)
1	Number of operating companies.....	7	7	16	3	11
2	Amount received or due for services, total ¹.....\$1,000..	4,682	1,153	² 1,066	411	2,418
3	Receipts for services in the specified State by contractors classified in that State as percent of line 2.....percent..	36	100	92	92	99
4	Receipts for services in the specified State by contractors classified in all States as percent of line 2 ³.....do....	42	213	145	283	113
5	Value added in mining services.....\$1,000..	3,770	809	765	241	1,996
6	Number of persons engaged, total.....	466	101	114	39	243
7	Number of employees, total.....	462	93	99	38	236
8	Number employed in the specified State by contractors classified in that State as percent of line 7 ⁴.....percent..	57	100	100	100	100
9	Number employed in the specified State by contractors classified in all States as percent of line 7 ⁴.....do....	63	143	159	278	113
10	Production and development workers.....	433	90	94	38	220
11	All other employees.....	29	3	5		
12	Proprietors and firm members.....	4	8	15		
13	Performing manual labor.....	1	6	12	1	2
14	Man-hours worked by production and development workers, total.....1,000..	970	190	214	86	545
15	Exploration work, including geophysical and other exploratory surveying.....do....	62	42	8	86	317
16	Stripping overburden.....do....			62		
17	Mining minerals for others.....do....			144		
18	Other work.....do....			148		
19	Principal expenses designated below, total.....\$1,000..	3,481	752	707	326	1,534
20	Wages of production and development workers.....do....	2,378	383	382	157	1,001
21	Salaries of all other employees.....do....	191	22	41		
22	Supplies.....do....	⁵ 842	306	210		
23	Products purchased for resale.....do....	...	...	...	28	112
24	Fuel.....do....	67	40	48		
25	Purchased electric energy.....do....	³	1	...		
26	Subcontract work.....do....	(⁵)	...	26	(⁵)	11
27	Purchased machinery installed.....do....	158	20	152	29	126
28	Capital expenditures, total.....do....	158	23	135	28	119
29	New construction and major alterations of fixed structures.....do....	158	23	10	28	119
30	New machinery and equipment.....do....			85		
31	Used plant and equipment.....do....			40		
32	Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	8,394	5,019	9,057	2,805	17,852
33	Per production worker.....	19	56	96	80	81
34	Prime movers.....	7,636	4,856	9,012	2,780	16,017
35	Electric motors driven by purchased energy.....	758	163	45	25	1,835
36	Horsepower rating of electric motors driven by energy generated at the establishment.....	..	30	2	...	...
37	Energy used.....million kwh equivalent..	17	10	19	8	37
38	Coal.....1,000 short tons..	...	...	1	...	...
39	Fuel oils.....1,000 barrels..	1	5	3	3	15
40	Natural gas.....million cu. ft..	...	...	...	...	7
41	Other fuels.....\$1,000..	59	9	27	13	34
42	Electric energy purchased.....million kwh..	(⁶)	(⁶)	...	...	(⁶)
43	Electric energy generated and used.....do....	...	(⁶)	(⁶)	...	...
44	Water intake, including mine water used.....million gallons..	...	7	13	...	...
45	Per production worker.....do....	...	0.08	0.14	...	...

D Withheld to avoid approximately disclosing figures for individual companies. ¹See table 1, footnote 4. ²Includes \$813 thousand for receipts in Minnesota. ³Each contractor was asked to report the amount received or due for work performed in each State. Thus, it was possible to determine the total amount received by these contractors for work in each State, even though other State statistics were based on the classification of the establishment according to the State for which the total amount received was greatest. The ratio in this line has been computed to indicate

METAL MINING CONTRACT SERVICES

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INDUSTRY SERVED AND BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

on the basis of the principal industry for which the service was performed and the principal State in which the service was performed. For explanation see INTRODUCTION)

South Central—Continued		Mountain						Pacific			
By industries served		Total	By State		By industries served			Oregon and California	By industries served		
Lead and zinc ores	Other metallic ores		Arizona	Other States (Montana, Idaho, Wyoming, Colorado, New Mexico, Utah, and Nevada)	Iron, copper, and tungsten ores, and gold	Lead and zinc ores	Other metallic ores		Iron and tungsten ores	Other metallic ores	
4	7	62	4	58	10	5	47	8	3	5	1
439	1,979	28,408	1,119	27,289	18,319	565	9,524	541	244	297	2
xxx	xxx	81	100	75	xxx	xxx	xxx	100	xxx	xxx	3
xxx	xxx	85	305	76	xxx	xxx	xxx	817	xxx	xxx	4
379	1,617	18,667	977	17,690	11,687	512	6,468	455	214	241	5
67	176	2,109	79	2,030	1,117	68	924	69	33	36	6
64	172	2,067	75	1,992	1,111	65	891	64	30	34	7
xxx	xxx	84	100	97	xxx	xxx	xxx	100	xxx	xxx	8
xxx	xxx	87	280	78	xxx	xxx	xxx	787	xxx	xxx	9
59	161	1,929	75	1,854	1,075	65	789	64 {	30 {	34 {	10
5	11	138	...	138	36	...	102				11
3	4	42	4	38	6	3	33				12
...	2	31	3	28	4	2	25	2	1	1	13
127	418	4,392	191	4,201	2,541	157	1,694	122	62	60	14
{	...	169	...	169	{	(D)	46	(D)	...	{	15
	...	1,260	...	1,260		...	153	(D)	...		16
	...	880	...	...		(D)	...	104	...		17
	127	2,083	191	2,772		34	1,495	(D)	62		18
402	1,132	20,503	523	19,980	12,893	395	7,215	292	144	148	19
266	735	9,428	381	9,047	5,569	342	3,517	217 {	125 {	92 {	20
77	41	950	...	950	229	...	721				21
547	5252	8,713 {	60	8,653	6,405	43	2,265		54	545	22
...	...		...	...	...	...	...		...	...	23
12	104		67	890	572	10	375	21	10	11	24
(5)	(5)		15	110	104	...	21	...	...	...	25
(D)	(D)	1,530	42	1,488	777	...	753	34	26	8	27
(D)	(D)	1,914	42	1,872	1,240	...	674	23	15	8	28
...	...	510	...	510	462	...	48	...	...	...	29
(D)	(D)	1,142	42	1,362	556	...	586	23	15 {	...	30
...	(D)	6262			222	...	40			8	31
2,554	15,298	105,093	2,400	102,693	55,090	1,020	48,983	3,705	3,075	630	32
43	95	54	32	...	51	16	62	60	103	20	33
1,079	14,938	93,738	2,100	91,638	46,236	1,020	46,482	3,705	3,075	630	34
1,475	360	11,355	300	11,055	8,854	...	2,501	...	...	...	35
...	...	3,755	...	3,755	2,725	...	1,030	...	...	...	36
4	33	261	21	240	159	3	99	6	2	4	37
...	...	...	...	...	...	...	...	...	...	...	38
1	14	87	4	83	75	...	12	1	...	1	39
...	7	7	...	7	...	...	7	...	...	...	40
7	27	418	47	371	105	10	303	14	7	7	41
(6)	(6)	7	2	5	5	...	2	...	...	...	42
...	...	6	...	6	5	...	1	...	...	...	43
...	...	79	(D)	(D)	(D)	...	(D)	...	...	...	44
...	...	0.04	(D)	(D)	(D)	...	(D)	...	...	...	45

the extent to which the contract work in the specified State or States was done by contractors classified in other States. ⁴Computation is based on the total number of employees in the State or States in the pay period ended nearest March 15, 1954. ⁵Cost of subcontract work is included with cost of supplies. ⁶See table 1, footnote 6.

Table 4.--DETAILED STATISTICS FOR THE METAL MINING CONTRACT SERVICES INDUSTRY IN THE UNITED STATES, BY KIND OF WORK PERFORMED: 1954

(Contractors were requested to prepare one report for all mining contract services performed in the United States. These reports were classified on the basis of the principal kind of work performed. For explanation of line captions, see INTRODUCTION)

Item	Establishments classified by principal kind of work performed						
	All kinds of work	Exploration work	Prospect, test, and other drilling, including blasting ¹	Sinking mine shafts and driving mine tunnels	Stripping overburden	Mining minerals for the account of others	Other work
Number of operating companies.....	114	10	63	10	11	13	7
Amount received or due for services, total.....\$1,000..	38,679	662	11,726	4,822	18,306	2,239	924
Exploration work, including geophysical and other exploratory surveying.....do....	914	534	377	...	...	1	2
Prospect, test, and other drilling, including blasting.....do....	10,363	128	10,229	...	(D)	(D)	1
Sinking mine shafts and driving mine tunnels.....do....	4,725	...	743	3,920	62	...	...
Stripping overburden.....do....	12,533	...	...	...	12,299	234	...
Mining minerals for others ².....do....	8,113	...	...	...	5,879	1,994	240
Other services primary to the metal mining contract services industry ³.....do....	714	...	(D)	...	(D)	...	681
Hauling minerals and mine equipment beyond mine property and other services classified in other industries ⁴.....do....	1,177	...	246	902	(D)	(D)	...
Products purchased and resold without further processing.....do....	140	...	(D)	...	(D)	...	...
Value added in mining services.....do....	26,703	558	8,266	3,991	11,335	1,736	817
Number of persons engaged, total.....	3,141	83	1,241	551	1,028	162	76
Production and development workers.....	2,863	78	1,084	513	978	150	65
All other employees.....	196		108	30	45		8
Proprietors and firm members.....	82		49	8	5		3
Performing manual labor.....	55	2	36	3	3	10	1
Man-hours worked by production and development workers, total.....1,000..	6,519	188	2,335	1,146	2,379	343	128
Exploration work, including geophysical and other exploratory surveying.....do....	234	157	77	...	...	...	...
Stripping overburden.....do....	1,639	...	...	...	1,613	26	...
Mining minerals for others.....do....	1,101	...	...	...	733	316	52
Other work.....do....	3,545	31	2,258	1,146	33	1	76
Principal expenses designated below, total.....\$1,000..	27,595	497	9,044	4,144	12,464	1,152	294
Wages of production and development workers.....do....	13,933	392	4,876	3,031	4,762	678	226
Salaries of all other employees.....do....	1,335		746	282	251		24
Supplies.....do....	10,286		2,755	598	56,678		519
Products purchased for resale.....do....	126	...	...	...	...	...	...
Fuel.....do....	1,273	16	402	42	668	127	25
Purchased electric energy.....do....	133		...	5	105		16
Subcontract work.....do....	509		265	186	(⁵)		(⁵)
Purchased machinery installed.....do....	2,049	8	881	75	909	102	74
Capital expenditures, total.....do....	2,400	9	843	75	1,389	73	11
New construction and major alterations of fixed structures.....do....	523	...	48	...	475	...	...
New machinery and equipment.....do....	1,522	9	751	75	669	34	11
Used plant and equipment.....do....	355		44		245	39	...
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	151,925	2,285	56,119	5,981	70,887	11,433	5,220
Per production worker.....	53	30	52	12	72	78	80
Prime movers.....	137,744	2,255	55,950	3,756	61,693	10,970	3,120
Electric motors driven by purchased energy.....	14,181	30	169	2,225	9,194	463	2,100
Horsepower rating of electric motors driven by energy generated at the establishment.....	3,787	...	1,282	30	2,475	...	...
Energy used..... million kwh equivalent..	358	4	108	10	194	37	5
Coal.....1,000 short tons..	1	...	1	...	...	...	...
Fuel oils.....1,000 barrels..	115	...	6	3	95	11	...
Natural gas.....million cu. ft..	14	...	7	...	...	...	7
Other fuels.....\$1,000..	574	15	354	22	106	65	12
Electric energy purchased.....million kwh..	7	(⁶)	(⁶)	(⁶)	5	2	(⁶)
Electric energy generated and used.....do....	6	(⁶)	1	(⁶)	5	...	...
Water intake, including mine water used.....million gallons..	99	...	80	1	(D)	4	(D)
Per production worker.....do....	0.03	...	0.07	...	(D)	0.03	(D)

D Withheld to avoid approximately disclosing figures for individual companies. ⁴Receipts for other drilling, including blasting, accounted for less than 1 percent of the total. ²Receipts for underground mining for others accounted for less than 3 percent of the total. ³Represents miscellaneous work such as installing production equipment, loading ore into trucks and freight cars, foundation testing, and track repair. ⁴Represents sinking mine shafts and driving mine tunnels for the bituminous coal industry; prospect and test drilling and sinking mine shafts and driving mine tunnels for the nonmetallic minerals (except fuels) industries; and water well drilling. ⁵See table 3, footnote 5. ⁶See table 1, footnote 6.

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Table 5.—PRODUCTS AND RECEIPTS FOR SERVICES: 1954 AND 1939

(These statistics are included in Tables 1 and 4 for 1954. They are not available for this industry for 1939)

Table 6.—GENERAL STATISTICS FOR METAL MINING CONTRACT SERVICES ESTABLISHMENTS CLASSIFIED BY EMPLOYMENT SIZE AND BY GEOGRAPHIC DIVISIONS: 1954

(For explanation of column captions, see INTRODUCTION)

Geographic division and number of employees in establishment	Number of companies ¹	Amount received or due for services (\$1,000)	Value added in mining services (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
United States, total.....	114	38,679	26,703	2,863	196	6,519	13,933	1,335	2,045
0.....	6	15	13	...	...	...	...	...	(D)
1-4.....	59	1,702	1,163	126	1	248	461	1	209
5-9.....	13	906	567	88	3	187	326	10	(D)
10-19.....	10	1,361	1,068	126	9	280	548	47	89
20-49.....	14	5,011	3,638	442	31	1,006	1,970	211	206
50-99.....	5	4,594	3,282	331	37	821	1,661	301	199
100-249.....	6	25,090	16,972	1,750	115	3,977	8,967	765	1,247
500-999.....	1								
Middle Atlantic.....	7	4,682	3,770	433	29	970	2,378	191	(D)
1-4.....	1	138	66	17	1	30	68	3	...
5-9.....	2								
10-19.....	2	4,544	3,704	416	28	940	2,310	188	(D)
100-249.....	2								
East North Central.....	7	1,153	809	90	3	190	383	22	23
1-4.....	5	1,153	809	90	3	190	383	22	23
20-49.....	2								
West North Central.....	16	1,066	765	94	5	214	382	41	95
0.....	2	283	207	26	...	58	91	...	17
1-4.....	9								
5-9.....	1	783	558	68	5	156	291	41	78
10-19.....	2								
20-49.....	2	2,208	1,830	197	16	494	918	118	(D)
50-99.....	2								
South Atlantic.....	3	411	241	138	(²)	86	² 157	(²)	(D)
1-4.....	1	411	241	138	(2)	86	2157	(2)	(D)
5-9.....	1								
20-49.....	1	2,208	1,830	197	16	494	918	118	(D)
50-99.....	2								
South Central.....	11	2,418	1,996	220	16	545	1,001	118	(D)
1-4.....	3	210	166	23	...	51	83	...	(D)
5-9.....	3								
10-19.....	1	2,208	1,830	197	16	494	918	118	(D)
20-49.....	2								
50-99.....	2	23,631	15,288	1,553	111	3,540	7,744	776	1,221
100-249.....	4								
500-999.....	1	1,092	713	73	1	139	271	1	203
1-4.....	35								
5-9.....	5	424	277	37	1	84	139	6	72
10-19.....	5	801	580	63	8	139	312	43	81
20-49.....	5	2,460	1,809	203	17	490	962	124	75
50-99.....	3	23,631	15,288	1,553	111	3,540	7,744	776	1,221
100-249.....	4								
500-999.....	1	541	455	264	(2)	122	217	(2)	(D)
1-4.....	5								
5-9.....	1	119	77	9	...	15	31	...	...
20-49.....	2	422	378	255	(2)	107	2186	(2)	(D)

D Withheld to avoid approximately disclosing figures for individual companies.

¹The number of companies is the same as the number of establishments since each company was asked to make one report for all mining contract services performed.²Number of salaried employees and salaries paid them are included with figures for production and development workers.

Table 7.—MONTHLY EMPLOYMENT IN THE METAL MINING CONTRACT SERVICES INDUSTRY, BY GEOGRAPHIC DIVISIONS, STATES, AND KIND OF WORK PERFORMED: 1954

Geographic division, State, and principal kind of work performed	Average employment for the year ¹	Number of employees by month											
		January	February	March	April	May	June	July	August	September	October	November	December
United States, total.....	3,059	3,168	2,962	2,831	2,795	2,834	3,006	3,058	3,088	3,120	3,260	3,304	3,246
GEOGRAPHIC DIVISION AND STATE													
Middle Atlantic.....	462	534	518	503	438	389	403	404	459	451	477	476	486
East North Central.....	93	114	117	120	108	99	99	96	101	59	62	68	67
West North Central.....	99	87	89	78	78	91	120	139	147	137	80	70	72
South Atlantic.....	38	32	39	36	37	41	35	36	37	28	52	50	34
South Central.....	236	244	222	236	243	253	256	263	235	229	226	232	204
Mountain.....	2,067	2,124	1,949	1,827	1,821	1,876	2,000	2,041	2,036	2,143	2,283	2,339	2,322
Arizona.....	75	65	81	83	93	91	103	99	81	62	50	45	41
Montana, Idaho, Wyoming, Colorado, New Mexico, Utah, and Nevada.....	1,992	2,059	1,868	1,744	1,728	1,785	1,897	1,942	1,955	2,081	2,233	2,294	2,281
Pacific.....	64	33	28	31	70	79	93	79	73	73	80	69	61
PRINCIPAL KIND OF WORK PERFORMED													
Exploration work.....	78	75	77	77	86	83	83	86	70	72	73	73	74
Prospect, test, and other drilling, including blasting.....	1,192	1,004	1,019	1,009	986	1,041	1,116	1,191	1,240	1,324	1,429	1,481	1,449
Sinking mine shafts and driving mine tunnels.....	543	515	518	521	492	454	485	488	550	603	643	630	609
Stripping overburden.....	1,023	1,406	1,169	1,033	984	976	1,010	984	970	909	918	948	962
Mining minerals for the account of others.....	150	119	135	144	184	202	210	214	180	122	116	98	75
Other work.....	73	49	44	47	63	78	102	95	76	90	81	74	77

¹Represents the sum of the average employment figures for the year as shown on the separate establishment reports. (These are the averages shown in other tables of this report.) Because of roundings, the sum of such average figures may differ slightly from the average of the January through December totals shown above.

Table 8.—GENERAL STATISTICS FOR ESTABLISHMENTS CLASSIFIED BY OUTPUT PER MAN-HOUR: 1954

(Such statistics were not compiled for this industry)

Table 9.—GENERAL STATISTICS FOR ESTABLISHMENTS CLASSIFIED BY RATIO OF WAGES AND SALARIES TO VALUE ADDED IN MINING: 1954

(Such statistics were not compiled for this industry)

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Table 10.—HORSEPOWER OF POWER EQUIPMENT USED IN THE METAL MINING CONTRACT SERVICES INDUSTRY, BY GEOGRAPHIC DIVISIONS AND BY PRINCIPAL KIND OF WORK PERFORMED: 1954

(For explanation of column captions, see INTRODUCTION)

Geographic division and principal kind of work performed	Aggregate horsepower per production worker	Aggregate horsepower (prime movers and electric motors driven by purchased energy)					Prime movers (horsepower)			
		Total	Loading equipment	Transportation equipment		All other equipment	Total	Loading equipment	By type of equipment	
				Highway type	Other				Highway type	Other
United States, total.....	53	151,925	25,587	52,671	41,228	32,439	137,744	17,685	2,671	41,198
GEOGRAPHIC DIVISION										
Middle Atlantic.....	19	8,394	216	6,580	...	1,598	7,636	86	6,580	...
East North Central.....	56	5,019	350	793	2,000	1,876	4,856	350	793	2,000
West North Central.....	96	9,057	790	2,901	2,825	2,541	9,012	790	2,901	2,825
South Atlantic.....	80	2,805	725	800	950	330	2,780	725	800	950
South Central.....	81	17,852	6,350	4,893	3,865	2,744	16,017	6,350	4,893	3,865
Mountain.....	54	105,093	16,506	35,099	31,373	22,115	93,738	8,734	35,099	31,343
Pacific.....	60	3,705	650	1,605	215	1,235	3,705	650	1,605	215
PRINCIPAL KIND OF WORK PERFORMED										
Exploration work.....	30	2,285	...	1,690	30	565	2,255	...	1,690	...
Prospect, test, and other drilling, including blasting...	52	56,119	5	35,664	1,000	19,450	55,950	5	35,664	1,000
Sinking mine shafts and driving mine tunnels.....	12	5,981	1,576	1,675	40	2,690	3,756	1,446	1,675	40
Stripping overburden.....	72	70,887	21,036	7,312	37,703	4,836	61,693	13,264	7,312	37,703
Mining minerals for the account of others.....	78	11,433	2,410	4,370	2,375	2,278	10,970	2,410	4,370	2,375
Other work.....	80	5,220	560	1,960	80	2,620	3,120	560	1,960	80
Prime movers (horsepower)—Con.				Electric motors (horsepower)						
All other equipment	By use		Total	By type of equipment			By source of energy			
	Driving generators	Not driving generators		Loading equipment	Transportation equipment	All other equipment	Driven by purchased energy	Driven by energy generated at the establishment		
United States, total.....	26,190	4,993	132,751	17,968	10,152	30	7,786	14,181	3,787	
GEOGRAPHIC DIVISION										
Middle Atlantic.....	970	...	7,636	758	130	...	628	758	...	
East North Central.....	1,713	105	4,751	193	...	...	193	163	30	
West North Central.....	2,496	10	9,002	47	...	...	47	45	2	
South Atlantic.....	305	...	2,780	25	...	...	25	25	...	
South Central.....	909	500	15,517	1,835	...	...	1,835	1,835	...	
Mountain.....	18,562	4,378	89,360	15,110	10,022	30	5,058	11,355	3,755	
Pacific.....	1,235	...	3,705	...	...	...	...	...	...
PRINCIPAL KIND OF WORK PERFORMED										
Exploration work.....	565	...	2,255	30	...	30	...	30	...	
Prospect, test, and other drilling, including blasting...	19,281	1,528	54,422	1,451	...	...	1,451	169	1,282	
Sinking mine shafts and driving mine tunnels.....	595	575	3,181	2,255	130	...	2,125	2,225	30	
Stripping overburden.....	3,414	2,800	58,893	11,669	10,022	...	1,647	9,194	2,475	
Mining minerals for the account of others.....	1,815	90	10,880	463	463	463	...	
Other work.....	520	...	3,120	2,100	2,100	2,100	...	

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Table 11.—NUMBER OF POWER LOADING AND EXCAVATING MACHINES IN THE METAL MINING CONTRACT SERVICES
INDUSTRY IN THE UNITED STATES, BY GEOGRAPHIC DIVISIONS: 1954

Type of loading equipment	United States	Middle Atlantic	East North Central	West North Central	South Atlantic	South Central	Mountain	Pacific
Surface loading and excavating equipment, total.....	174	...	4	10	10	58	85	7
By kind of power used:								
Electric and Diesel-electric.....	11	...	...	...	...	...	11	...
Diesel.....	154	...	4	10	9	53	72	6
Gasoline and other.....	9	...	...	...	1	5	2	1
Power shovels, total.....	54	...	2	3	1	6	40	2
By kind of power used:								
Electric and Diesel-electric.....	11	...	...	...	...	...	11	...
Diesel.....	41	...	2	3	1	5	28	2
Gasoline and other.....	2	...	...	...	...	1	1	...
By dipper or bucket capacity (cubic yards):								
Less than 3.....	38	...	2	3	1	6	24	2
3-5 inclusive.....	7	...	...	...	...	...	7	...
6-12 inclusive.....	9	...	...	...	...	...	9	...
Dragline excavators, total.....	13	...	...	2	1	4	5	1
By kind of power used:								
Diesel.....	12	...	...	2	1	4	5	...
Gasoline and other.....	1	...	...	...	...	...	...	1
By dipper or bucket capacity (cubic yards):								
Less than 3.....	12	...	...	2	1	3	5	1
3-5 inclusive.....	1	...	...	...	...	1	...	...
Scraper loaders, total.....	10	...	...	...	4	5	...	1
By kind of power used:								
Diesel.....	9	...	...	...	3	5	...	1
Gasoline and other.....	1	...	...	...	1	...	...	...
By rated horsepower:								
Less than 10.....	3	...	...	...	1	2	...	...
10-25 inclusive.....	3	...	...	...	3	...	...	...
26-100 inclusive.....	3	...	...	...	...	2	...	1
More than 100.....	1	...	...	...	...	1	...	...
Clamshell and orange peel loaders (gasoline and other power).....	4	...	...	...	...	4	...	...
Bulldozers and tractor-drawn scrapers, total.....	93	...	2	5	4	39	40	3
By kind of power used:								
Diesel.....	92	...	2	5	4	39	39	3
Gasoline and other.....	1	...	...	...	...	...	1	...
Underground loading equipment, total.....	14	8	...	...	...	...	6	...
By kind of power used:								
Compressed air.....	6	...	...	...	...	...	6	...
Electric and Diesel-electric.....	6	6	...	...	...	...	...	...
Diesel.....	2	2	...	...	...	...	...	...
Shovel loaders requiring a minimum working height of 8 feet or less (Diesel power).....	2	2	...	...	...	...	...	...
Shovel loaders requiring a minimum working height of more than 8 feet (electric and Diesel-electric power).....	1	1	...	...	...	...	...	...
Scraper loaders (including slushers), total.....	11	5	...	...	...	...	6	...
By kind of power used:								
Compressed air.....	6	...	...	...	...	...	6	...
Electric and Diesel-electric.....	5	5
By rated horsepower:								
Less than 10.....	6	6	...
10-25 inclusive.....	5	5

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Table 12.—SUPPLIES, FUELS, AND ELECTRIC ENERGY USED IN THE METAL MINING CONTRACT SERVICES INDUSTRY, BY GEOGRAPHIC DIVISIONS: 1954

(For explanation of line captions, see INTRODUCTION)

Item	Unit of measure for quantity	United States		Middle Atlantic		East North Central		West North Central	
		Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
Supplies used.....	.....	xxx	10,286	xxx	1,842	xxx	306	xxx	210
Fuels used, total.....	Million kwh equivalent.	351	1,273	17	67	10	40	19	48
Coal.....	1,000 short tons	1	9	...	...	(4)	1	1	8
Fuel oils.....	1,000 barrels...	115	686	1	8	5	30	3	13
Natural gas.....	Million cu. ft..	14	4	...	...	...	...	...	...
Other fuels.....	\$1,000.....	xxx	574	xxx	59	xxx	9	xxx	27
Electric energy purchased.....	Million kwh.....	7	133	(4)	3	(4)	1	...	...
Electric energy generated and used.....	....do.....	6	xxx	...	xxx	(4)	xxx	(4)	xxx

	South Atlantic		South Central		Mountain		Pacific	
	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
Supplies used.....	xxx	2141	xxx	288	xxx	38,713	xxx	154
Fuels used, total.....	8	28	37	112	254	957	6	21
Coal.....	...	...	...	...	...	...	...	...
Fuel oils.....	3	15	15	76	87	537	1	7
Natural gas.....	...	...	7	2	7	2	...	...
Other fuels.....	...	13	xxx	34	xxx	418	xxx	14
Electric energy purchased.....	...	...	(4)	4	7	125	...	...
Electric energy generated and used.....	...	xxx	...	xxx	6	xxx	...	xxx

D Withheld to avoid approximately disclosing figures for individual companies.

¹See table 3, footnote 5.²Cost of supplies includes cost of products purchased for resale and subcontract work.³Cost of supplies includes cost of products purchased for resale.⁴See table 1, footnote 6.

Table 13.—WATER USE IN THE METAL MINING CONTRACT SERVICES INDUSTRY IN THE UNITED STATES, BY GEOGRAPHIC DIVISIONS AND BY KIND OF WORK PERFORMED: 1954

(For explanation of column captions, see INTRODUCTION)

Geographic division and kind of work performed	Average number of production and development workers	Value added in mining services (\$1,000)	Water intake (except mine water)			Water discharged (except mine water) (Million gallons)	Mine water (Million gallons)		Gross water use, including recirculation (Million gallons)	Percent of total water intake (except mine water) by principal source		
			Million gallons	Million gallons per production worker	Gallons per dollar value added		Used	Drained and discharged		Public water systems	Company surface water systems	Company ground water systems
United States, total.....	2,863	26,703	98	0.03	3.71	87	1	2,427	100	16	77	7
GEOGRAPHIC DIVISION												
Middle Atlantic.....	433	3,770	...	...	...	...	...	(D)	...	...	...	...
East North Central.....	90	809	7	0.08	8.65	1	...	...	7	86	14	...
West North Central.....	94	765	13	0.14	17.0	13	...	(D)	13	8	77	15
Mountain.....	1,929	18,667	78	0.04	4.18	73	1	(D)	80	12	82	6
South Atlantic, South Central, and Pacific.....	317	2,692	...	...	...	...	...	...	...	...	...	...
PRINCIPAL KIND OF WORK PERFORMED												
Exploration work.....	(D)	558	...	...	...	...	...	...	...	...	...	...
Prospect, test, and other drilling, including blasting.....	1,084	8,260	80	0.07	9.69	74	...	...	80	9	89	2
Sinking mine shafts and driving mine tunnels.....	513	3,991	...	...	...	...	1	(D)	2	...	...	...
Stripping overburden.....	978	11,335	(D)	(D)	(D)	...	...	(D)	(D)	...	...	100
Mining minerals for the account of others.....	(D)	1,736	4	0.03	2.30	13	{	...	4	...	100	...
Other work.....	65	823	(D)	(D)	(D)			...	(D)	100	...	...

D Withheld to avoid approximately disclosing figures for individual companies.

Miscellaneous Metal Ores

This report shows 1954 Census of Mineral Industries statistics for establishments classified in Industry Group 109, Miscellaneous Metal Ores. The separate industries included in Industry Group 109 are as follows:

Industry 1092—Mercury ores: Establishments primarily engaged in mining, milling, or otherwise preparing mercury ores, such as cinnabar. The industry includes the production of metallic mercury by furnacing or retorting at the mine site.

Industry 1093—Titanium ores: Establishments primarily engaged in mining, milling, or otherwise preparing titanium ores, such as ilmenite and rutile.

Industry 1094—Uranium-radium-vanadium ores: Establishments primarily engaged in mining, milling, or otherwise preparing uranium-radium-vanadium ores, such as uraninite (pitchblende), carnotite, and roscoelite.

Industry 1099—Metallic minerals (ores), not elsewhere classified: Establishments primarily engaged in mining, milling, or otherwise preparing miscellaneous metallic minerals, not elsewhere classified, such as antimony, beryllium, platinum group, tantalum, thorium, tin, and cerium and other rare-earth metals. Although establishments primarily engaged in mining or preparing cobalt ores are currently classified in Industry 1099, such establishments have been included as part of Industry 1069, Ferro-alloy ores, except vanadium, not elsewhere classified, since cobalt is most closely related in use to chromium, nickel, and other ferro-alloy ores.

Separate statistics are shown in Table 1 of this report for each of the above industries. However, the figures for Industries 1093 and 1099 have been combined in most other tables of this report. In compliance with security provisions of the Atomic Energy Act in respect to fissionable materials, establishments in Industry 1094, Uranium-radium-vanadium ores, were canvassed on a special form specifying that figures on products produced, shipped, or milled be omitted. The list established of firms to be canvassed on this special form included a number of producers of lithium minerals and of monazite containing thorium. Data reported by such establishments on this special form are included in the statistics shown in this report for Industry 1094. Other producers of these minerals, who filed reports on standard forms, were classified in their respective industries, Industry 1099 for monazite and Industry 1479 for lithium minerals.

Approximately 150 small uranium-radium-vanadium ores establishments, accounting for less than ten percent of the total employment and principal expenses for the industry, were canvassed on abbreviated report forms. For these establishments, less detail was obtained on selected items, such as the cost of supplies, fuels, and electric energy and the horsepower of power equipment, and certain items were omitted entirely, such as man-hours of production and development workers and water use. To obtain industry totals, estimates were prepared for items omitted for such establishments on the basis of other information reported on the short forms and the data reported on long forms for similar operations. For example, man-hours were estimated by dividing the total 1954 wage payments of such establishments by the average hourly wage in the State, as shown in

the reports of the establishments reporting both wages and man-hours of production and development workers.

The total value of shipments of the miscellaneous metal ores industries, exclusive of the uranium-radium-vanadium ores industry, amounted to \$18.6 million. Of this total, the mercury ores industry accounted for \$4.5 million; the titanium ores industry, \$12.8 million; and the metallic minerals, not elsewhere classified, industry, \$1.3 million. These figures contain some duplication since they include the value of shipments of ores to mills within the industry for treatment. This duplication amounts to less than one percent for the mercury ores and titanium ores industries, but it is estimated as more than one-third of the total value of shipments for the metallic minerals, not elsewhere classified, industry. The value of secondary products and of receipts for services for all industries in Group 109 for which shipments data were collected amounted to \$4.1 million, or nearly one-fourth of the total value of shipments. Such secondary products and services were reported almost entirely by titanium ores establishments.

It should be emphasized for the titanium ores industry that the general statistics shown in this report for such items as employment, payrolls, supplies, horsepower, capital expenditures, and energy and water use do not include the activities of establishments classified in other industries which produced titanium ores and concentrates as secondary products. Conversely, the general statistics for the titanium ores industry include the production of secondary products and the performance of services for others, since these general statistics are reported for each establishment as a whole. These factors should be taken into account in comparing product figures in Table 5 with the statistics for other items shown in this report.

The report form used by the Bureau of the Census for the miscellaneous metal ores industries, exclusive of the special form used for the uranium-radium-vanadium ores industry, also provided information required by the Bureau of Mines for its annual statistics on mercury, titanium, and miscellaneous metal ores. The Bureau of Mines statistics are, in general, comparable with those shown in this report. However, some differences occur in the statistics on products, arising principally from the difference in methods followed and objectives sought by these two bureaus in compiling and presenting the statistics. The reasons for such differences, to the extent that they pertain to statistics for the miscellaneous metal ores industries, are summarized below:

1. Figures for establishments with value of shipments of less than \$500 are excluded from this report unless the expenses for development and maintenance work amounted to \$500 or more. The Bureau of Mines includes production of all domestic mines, regardless of the size of the operation.

2. The Bureau of Mines excludes from its statistics on mercury the small quantity of mercury produced from placer operations and from clean-up activity at furnaces, whereas the Bureau of the Census includes such mercury.

3. The Bureau of the Census has included in its statistics on titanium concentrates figures covering foreign ores concentrated at mills in the United States. Statistics on mine production published by the Bureau of Mines refer only to domestic ores.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 1.—COMPARATIVE STATISTICS FOR THE MISCELLANEOUS METAL ORES INDUSTRIES IN THE
(For explanation of column captions and for statement on the minimum

	Item	Miscellaneous metal ores industries, total		Mercury ores industry					
		1954	1939	1954	1939	1929 ²	1919 ²	1909	1902
1	Number of operating companies.....	701	⁵ 83	81	⁵ 72	(NA)	(NA)	⁵ 30	⁵ 46
2	Number of establishments.....	781	(NA)	87	(NA)	40	26	(NA)	(NA)
3	Number of mines.....	776	80	87	69	40	26	40	51
4	Number of mills (or mines with furnaces or retorts)...	100	69	75	60	(NA)	24	(NA)	(NA)
5	Mercury metal produced.....flasks (76 pounds)...	xxx	xxx	17,487	18,222	23,769	(NA)	(NA)	34,517
6	Value of shipments, total ⁶.....\$1,000..	718,594	(NA)	4,519	(NA)	(NA)	1,803	868	(NA)
7	Net shipments, total ⁶.....do....	(NA)	3,760	(D)	1,830	2,820	1,803	868	1,550
8	Primary products of the industry.....do....	714,455	3,642	4,519	1,830	2,820	1,803	868	1,550
9	Other products and services.....do....	74,139	118	...	...	...	...	...	(NA)
10	Value added in mining.....do....	715,283	2,837	3,355	1,425	2,042	1,235	660	1,198
11	Number of persons engaged, total.....	5,661	1,395	578	753	1,127	846	692	1,489
12	Production and development workers.....do....	3,982	1,182	372	621	1,029	748	622	1,364
13	All other employees.....do....	899	157	81	81	88	71	48	125
14	Proprietors and firm members.....do....	780	56	125	51	10	27	22	9
15	Performing manual labor.....do....	484	44	110	41	(NA)	11	9	(NA)
16	Man-hours worked by production and development workers, total.....do....	8,536	2,622	841	1,421	...	...	...	...
17	At mines, total.....do....	5,739	¹² 1,716	706	¹² 1,122	...	...	...	...
18	Underground.....do....	3,379	(NA)	572	¹² 740	...	...	...	...
19	Open-pit.....do....	858	(NA)	30	¹² 158	...	...	...	...
20	Surface (including mine shops and yards).....do....	¹³ 1,502	(NA)	104	¹² 201	(NA)	(NA)	(NA)	(NA)
21	At mills.....do....	2,797	¹² 889	135	¹² 293	...	...	...	...
22	Man-hours spent on development and exploration work (included above).....do....	1,489	(NA)	73	(NA)	...	...	...	...
23	Mercury metal produced per man- hour.....flasks (76 pounds)...	xxx	xxx	21	13	(NA)	(NA)	(NA)	(NA)
24	Principal expenses designated below, total...\$1,000..	¹⁴ 47,401	¹⁵ 2,631	3,425	¹⁵ 1,321	¹⁵ 2,381	1,617	772	¹⁵ 1,425
25	Wages of production and development workers.....do....	16,250	1,390	1,607	752	1,383	828	477	909
26	Salaries of all other employees.....do....	4,436	318	365	164	220	221	87	164
27	Minerals received for milling.....do....	71,082	(NA)	1,160	(NA)	(NA)	...	...	(NA)
28	Supplies.....do....	13,378	511	229	464	404	141	...	...
29	Fuel.....do....	2,957	294	204	139	230	127	57	329
30	Purchased electric energy.....do....	1,341	69	61	33	69	29	...	...
31	Contract work.....do....	7,957	49	28	4	15	8	10	23
32	Purchased machinery installed.....do....	7,596	(NA)	226	(NA)	618	(NA)	...	...
33	Capital expenditures, total.....do....	20,383	(NA)	515	(NA)	(NA)	(NA)	...	...
34	Development and exploration of mineral property.....do....	5,782	(NA)	167	(NA)	460	162	...	...
35	Mill construction.....do....	5,919	160	140	68	...	...	(NA)	(NA)
36	Other construction.....do....	1,662	...	36	...	(NA)	(NA)	...	...
37	New machinery and equipment.....do....	5,155	380	116	139	...	...	...	...
38	Used plant and equipment.....do....	1,865	71	56	54	...	...	...	...
39	Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....do....	241,767	19,033	11,705	9,958	5,625	2,607	904	1,808
40	Per production worker.....do....	61	16	31	16	5	3	1	(¹⁶)
41	Prime movers.....do....	188,715	15,453	9,056	7,984	3,119	1,441	904	1,808
42	Electric motors driven by purchased energy.....do....	53,052	3,580	2,649	1,974	2,506	1,166	...	...
43	Horsepower rating of electric motors driven by energy generated at establishments reported.....do....	5,436	2,570	637	800	758	66	179	15
44	Energy used.....million kwh equivalent..	1,717	332	78	92	140	(NA)	...	...
45	Coal.....do....	69	29	...	1	...	...	...	...
46	Fuel oil.....do....	337	53	38	43	75	21	...	...
47	Natural gas.....do....	954	11	(D)	...	...	...	(NA)	(NA)
48	Electric energy purchased.....million kwh..	118	6	5	3	5	(NA)	...	...
49	Electric energy generated and used.....do....	9	3	1	1	2	(NA)	...	...
50	Water intake, including mine water used.....million gallons..	4,406	...	12	...	...	...	...	...
51	Per production worker.....do....	1.11	(NA)	0.03	(NA)	(NA)	(NA)	(NA)	(NA)

xxx Not applicable. D Withheld to avoid approximately disclosing figures for individual companies. NA Not available. ¹In addition, titanium ores establishments were reported as follows: 1929, 1; 1919, 2; 1909, 1; and 1902, 1. Uranium-radium-vanadium ores establishments were reported as follows: 1929, 2; 1919, 13; and 1909, 2. Metallic minerals, not elsewhere classified, establishments were reported as follows: 1939, 1; 1929, 1; and 1909, 3. Separate figures are not available for the years not shown in the table above. ²Excludes nonproducing operations as follows: 1929, 13 establishments, 1919, 2 establishments, and for 1889, 6 mines. It is not clear whether data for nonproducing operations in 1870 and 1880 were included in the statistics shown for those years. ³Florida, 6 establishments, and New York, Pennsylvania, Virginia, and California, 1 establishment each. ⁴Represents antimony operations and 678 nonproducing tin openings. Includes the value of product of antimony mines in Nevada (\$18,000) which were operated by working proprietors only. No expenses are available for these operations. For tin mines the figures shown for supplies, etc. (\$61,000) represents "other expenditures" and probably includes some expenditures for such items as rent, taxes, and insurance. ⁵May contain some duplication, arising from the fact that one company may have had operations in more than one of the industries specified above or may have had both producing and nonproducing operations. Information is not available to eliminate such duplications. ⁶Total value of shipments for 1954 contains some duplication since it includes the value of minerals shipped for treatment at mills within the industry as well as concentrates produced from such minerals. For both the mercury ores and titanium ores industries, however, this duplication amounts to less than one percent of the total value of shipments. Figures on such shipments are not available for the metallic minerals, not elsewhere classified, industry and the extent of duplication in the value of shipments for this industry, therefore, cannot be precisely computed. However, on the basis of figures reported on the

UNITED STATES: 1954, 1939, 1929, 1919, 1909, 1902, 1889, 1870, AND 1860.

size of establishments included for each year, see INTRODUCTION)

Mercury ores industry—Continued			Titanium ores industry ¹		Uranium—radium—vanadium ores industry ¹			Metallic minerals, not elsewhere classified, industry ¹			
1889 ²	1870	1860	1954 ³	1939	1954	1939	1902	1954	1902	1889 ⁴	
(NA)	(NA)	(NA)	7	3	572	8	3	44	22	(NA)	1
(NA)	4	3	10	(NA)	637	(NA)	(NA)	47	(NA)	(NA)	2
11	(NA)	(NA)	8	3	636	8	3	45	23	(⁴)	3
(NA)	(NA)	(NA)	8	3	8	6	(NA)	9	(NA)	(NA)	4
26,638	(NA)	(NA)	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	5
(NA)	(NA)	(NA)	12,750	(NA)	(NA)	(NA)	(NA)	1,325	(NA)	(NA)	6
1,191	818	382	(D)	458	(NA)	1,472	48	(NA)	64	(NA)	7
1,191	818	382	8,647	438	(NA)	1,374	48	1,289	64	(NA)	8
(NA)	(NA)	(NA)	4,103	20	(NA)	98	(NA)	36	(NA)	(NA)	9
971	787	216	11,134	370	(NA)	1,043	45	794	64	(⁸)	10
957	811	335	844	196	4,081	446	21	158	91	350	11
¹⁰ 917	811	335	568	183	2,944	378	⁹ 19	98	⁹ 88	350	12
40			275	13	523	63	2	20	3		13
(NA)	(NA)	(NA)	1	...	614	5	(NA)	40	(NA)	(NA)	14
			1	...	339	3	(NA)	34	(NA)	(NA)	15
			1,261	¹¹ 322	6,227	879	(NA)	207			16
			730	177	4,119	¹² 417	(NA)	184			17
			...	(NA)	2,764	¹² 293	(NA)	43			18
(NA)	(NA)	(NA)	208	(NA)	562	¹² 83	(NA)	58			19
			¹³ 522	(NA)	793	¹² 41	(NA)	¹³ 83	(NA)	(NA)	20
			531	145	2,108	¹² 451	(NA)	23			21
			39	(NA)	1,329	(NA)	(NA)	48			22
(NA)	(NA)	(NA)	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	23
¹⁵ 846	¹⁵ 630	¹⁵ 325	8,027	¹⁵ 270	¹⁵ 34,642	¹⁵ 1,038	¹⁵ 24	1,307	¹⁵ 27	¹⁵ 284	24
566	599	159	2,397	140	11,908	497	17	338	25		25
60			1,302	42	2,660	112	4	109	2		26
(NA)	(NA)	(NA)	2,801	(NA)	(NA)	(NA)	(NA)	655	(NA)	(NA)	27
220	31	166	449	38	9,844	244		41			28
(NA)	...	...	743	35	2,263	140	3	32	...	65	29
(NA)	(NA)	(NA)	335	...	505	...	...	132	...	5	30
			1,286	(NA)	5,336	(NA)	(NA)	748			32
			3,998	(NA)	14,793	(NA)	(NA)	1,077			33
(NA)	(NA)	(NA)	...	(NA)	5,494	(NA)	(NA)	121	(NA)	(NA)	34
			2,544	15	3,052	77	(NA)	183			35
			360	72	1,237	169	(NA)	29			36
			1,092	...	3,842	17	(NA)	105			37
			2	...	1,168		(NA)	639			38
2,193	71		45,841	2,251	165,264	6,824	...	18,957	30	(NA)	39
(¹⁷)	(¹⁸)		81	12	56	18	...	(¹⁹)	(¹⁸)	(NA)	40
2,193	71	(NA)	19,524	645	150,214	6,824	...	9,921	30	(NA)	41
...	...		26,317	1,606	15,050	...	...	9,036		(NA)	42
4	...		110	40	4,609	1,730	...	80	(NA)	(NA)	43
			361	18	1,266	224		12			44
(NA)	(NA)	(NA)	31	1	38	27		...			45
			28	2	268	8	(NA)	3	(NA)	(NA)	46
			(D)	11	944	...		...			47
			73	3	37	...		3			48
			...	...	8	2		...			49
(NA)	(NA)	(NA)	2,793	(NA)	1,601	(NA)	(NA)	...	(NA)	(NA)	50
			4.92	(NA)	0.54			...			51

cost of minerals received for milling, it is estimated that the duplication represents more than a third of the total value of shipments for this industry. Figures for 1939 and earlier years represent net production and do not contain the duplication referred to above. Figures for 1902 and earlier years exclude the value of secondary products and services.

⁷Excludes figures for the uranium—radium—vanadium ores industry. Data were not obtained for the 1954 Census of Mineral Industries on the value of shipments and cost of ores received for milling for establishments in this industry.

⁸Value added cannot be computed because the cost of supplies and contract work exceeds the value of product. See footnote 4 above.

⁹Figures for average number employed were reduced to a 300-day basis for establishments which operated for a shorter period.

¹⁰Represents the average number employed during the time the mines were active.

¹¹Represents total man-hours during the time the mines were active; no man-hours were reported for inactive days.

¹²Excludes man-hours worked on inactive days, which are not available by department. For mine departments at mercury mines, also excluded are man-hours for nonproducing operations; these are not available by mine department.

¹³Includes man-hours on dredges amounting to 212,000 man-hours for the titanium ores and metallic minerals, not elsewhere classified, industries combined.

¹⁴Excludes the cost of minerals received from other establishments for the uranium—radium—vanadium ores industry. (See footnote 7 above.)

¹⁵Excludes the cost of minerals received from other establishments for milling, and for 1889 and earlier years for the mercury ores industry, the cost of the contract work.

¹⁶See footnote 9 above.

¹⁷See footnote 10 above.

¹⁸Less than 0.5 horsepower per worker.

¹⁹Not computed since the number of proprietors and firm members performing manual labor exceeds one-third of the number of production and development workers.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 2.—COMPARATIVE STATISTICS FOR THE MERCURY ORES INDUSTRY, BY STATES: 1954, 1939, 1929, AND 1919
 (For explanation of column captions, see INTRODUCTION. For 1939 and earlier years excludes nonproducing operations, except for the United States totals for 1939)

State and year	Number of mines	Mercury metal produced (Flasks of 76 pounds)	Value of ship-ments ¹ (\$1,000)	Number of employees		Designated principal expenses (\$1,000)						Aggregate horsepower rating of power equipment	
				Produc-tion and develop-ment workers	All other employees	Wages of produc-tion and develop-ment workers	Salaries of all other employees	Supplies and minerals received for milling ²	Fuel	Purchased electric energy	Contract work		
United States, total.....	1954..	87	17,487	4,519	372	81	1,607	365	1,160	204	61	28	11,705
	1939..	69	18,222	1,830	621	81	752	164	229	139	33	4	9,958
	1929..	40	23,769	2,820	1,029	88	1,383	220	464	230	69	15	5,625
	1919..	26	(NA)	1,803	748	71	828	221	404	127	29	8	2,607
California.....	1954..	42	11,260	2,987	230	65	1,001	252	869	³ 150	(³)	5	6,944
	1939..	30	10,897	1,088	342	29	465	71	158	77	27	...	4,701
	1929..	18	10,036	1,178	446	28	657	73	288	86	42	10	2,566
	1919..	17	(NA)	1,217	485	35	621	97	271	80	29	7	1,907
Other States ⁴	1954..	45	6,227	1,532	142	16	606	113	291	³ 115	(³)	23	4,761
	1939..	31	7,325	742	260	45	272	84	65	61	6	3	3,687
	1929..	22	13,733	1,642	583	60	726	147	176	144	27	5	3,059
	1919..	9	(NA)	586	263	36	207	124	133	47	...	1	700

NA Not available.

¹See table 1, footnote 6.

²The cost of minerals received for milling, if any, is excluded for 1939 and 1929. No such receipts were reported for 1919.

³Cost of purchased electric energy is included with the cost of fuel.

⁴Nevada and Oregon for all years and in addition for 1954, Idaho, Arizona, and Washington; for 1939, Arkansas, Texas, Idaho, Arizona, and a central office in Washington; for 1929, Texas, Arizona, and Washington; and for 1919, Texas.

MISCELLANEOUS METAL ORES

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Table 3.—DETAILED STATISTICS FOR THE MERCURY ORES, URANIUM—RADIUM—VANADIUM ORES, AND METALLIC MINERALS, NOT ELSEWHERE CLASSIFIED, INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954

(For explanation of column captions, see INTRODUCTION)

Item	Mercury ores				
	United States, total ¹	Mountain ²	Pacific		
			Total	California	Other States ³
Number of operating companies.....	81	31	52	39	14
Number of establishments.....	87	31	56	42	14
Number of mines.....	87	31	56	42	14
Number of mills (or mercury mines with furnaces or retorts).....	75	28	47	36	11
Value of shipments ¹¹.....\$1,000..	4,519	1,395	3,124	2,987	137
Value added in mining.....do....	3,355	1,186	2,169	2,067	102
Number of persons engaged, total.....	578	183	395	354	41
Production and development workers.....	372	116	256	230	26
All other employees.....	81	16	65	65	...
Proprietors and firm members.....	125	51	74	59	15
Performing manual labor.....	110	47	63	50	13
Man-hours worked by production and development workers, total.....1,000..	841	280	561	508	53
At mines, total.....do....	706	222	484	446	38
Underground.....do....	572	140	432	401	31
Open-pit.....do....	30	6	24	22	2
Surface (including mine shops and yards).....do....	104	76	28	23	5
At mills.....do....	135	58	77	62	15
Man-hours spent on development and exploration work (included above).....do....	73	23	50	35	15
Principal expenses designated below, total.....\$1,000..	3,425	977	2,448	2,277	171
Wages of production and development workers.....do....	1,607	508	1,099	1,001	98
Salaries of all other employees.....do....	365	111	254	252	2
Minerals received for milling.....do....	1,160	249	911	869	42
Supplies.....do....	204	90	114	150	16
Fuel.....do....	61	9	52	5	13
Purchased electric energy.....do....	28	10	18		
Contract work.....do....					
Purchased machinery installed.....do....	226	80	146	129	17
Capital expenditures, total.....do....	515	229	286	233	53
Development and exploration of mineral property.....do....	167	54	113	79	34
Mill construction.....do....	140	49	91	91	...
Other construction.....do....	36	34	2	1	1
New machinery and equipment.....do....	116	56	60	48	12
Used plant and equipment.....do....	56	36	20	14	6
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	11,705	3,477	8,228	6,944	1,284
Per production worker.....	31	(¹⁴)	32	30	(¹⁴)
Prime movers.....	9,056	3,074	5,982	5,099	883
Electric motors driven by purchased energy.....	2,649	403	2,246	1,845	401
Horsepower rating of electric motors driven by energy generated at establishments reported.....	637	367	270	262	8
Energy used.....million kwh equivalent..	78	25	53	50	3
Coal.....1,000 short tons..	...	...	...	...	...
Fuel oil.....1,000 barrels..	38	13	25	24	1
Natural gas.....million cu. ft..	(D)	...	(D)	(D)	...
Electric energy purchased.....million kwh..	5	1	4	4	...
Electric energy generated and used.....do....	1	...	1	1	...
Water intake, including mine water used.....million gallons..	12	5	7	6	1
Per production worker.....do....	0.03	(¹⁴)	0.03	0.03	(¹⁴)

See footnotes at end of table.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 3.—DETAILED STATISTICS FOR THE MERCURY ORES, URANIUM—RADIUM—VANADIUM ORES, AND METALLIC

(For explanation of column

Item	Uranium—radium—vanadium ores								
	United States, total	Middle Atlantic and West North Central			South ⁵	Mountain			
		Total	South Dakota	Other States ⁴		Total	Wyoming	Colorado	New Mexico
1 Number of operating companies.....	572	18	15	3	7	534	11	228	39
2 Number of establishments.....	637	18	15	3	7	597	13	254	39
3 Number of mines.....	636	17	15	2	7	597	13	249	42
4 Number of mills (or mercury mines with furnaces or retorts).....	8	1	...	1	...	7	...	5	1
5 Value of shipments ¹¹.....\$1,000..	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
6 Value added in mining.....do....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
7 Number of persons engaged, total.....	4,081	101	53	48	23	3,902	19	1,904	460
8 Production and development workers.....	2,944	67	34	33	16	2,842	13	1,377	305
9 All other employees.....	523	18	3	15	...	495			
10 Proprietors and firm members.....	614	16	16	...	7	565			
11 Performing manual labor.....	339	15	15	...	1	309	3	169	14
12 Man-hours worked by production and development workers, total.....1,000..	6,227	134	70	64	22	6,033	25	3,055	609
13 At mines, total.....do....	4,119	(D)	70	(D)	12	(D)	25	1,555	(D)
14 Underground.....do....	2,764	29	29	...	12	2,703	10	1,263	142
15 Open-pit.....do....	562	32	32	...	...	530	11	42	103
16 Surface (including mine shops and yards).....do....	793	73	9	64	10	2,800	4	250	364
17 At mills.....do....	2,108								
18 Man-hours spent on development and exploration work (included above).....do....	1,329	22	22	...	20	1,255	19	427	51
19 Principal expenses designated below, total....\$1,000..	1334,642	13521	308	13213	57	1333,889	96	1316,545	134,943
20 Wages of production and development workers.....do....	11,908	253	128	125	40	11,553	48	5,800	1,221
21 Salaries of all other employees.....do....	2,660	87	26	61	...	2,527			
22 Minerals received for milling.....do....	(NA)	(NA)	...	(NA)	...	(NA)			
23 Supplies.....do....	9,844	89	47	27	17	9,736	15	5,544	894
24 Fuel.....do....	2,263						2	1,463	185
25 Purchased electric energy.....do....	505						...	423	...
26 Contract work.....do....	7,462	92	92	...	...	7,347	31	2,000	2,004
27 Purchased machinery installed.....do....	5,336	(D)	170	(D)	(D)	4,990	21	1,718	586
28 Capital expenditures, total.....do....	14,793	291	248	43	16	14,259	85	3,154	3,235
29 Development and exploration of mineral property.....do....	5,494	(D)	82	(D)	(D)	5,251	64	1,137	233
30 Mill construction.....do....	3,052	...	...	...	...	3,046	...	246	2,416
31 Other construction.....do....	1,237	6	6	...	...	1,226	...	236	17
32 New machinery and equipment.....do....	3,842	(D)	91	(D)	(D)	3,691	20	1,214	486
33 Used plant and equipment.....do....	1,168	75	69	6	...	1,045	1	321	83
34 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	165,264	5,130	3,915	1,215	465	157,831	2,813	71,716	11,388
35 Per production worker.....	56	77	(14)	37	29	56	(D)	52	37
36 Prime movers.....	150,214	4,740	3,875	865	465	143,483	2,813	60,824	11,258
37 Electric motors driven by purchased energy.....	15,050	390	40	350	...	14,348	...	10,892	130
38 Horsepower rating of electric motors driven by energy generated at establishments reported.....	4,609	...	...	...	...	4,609	...	1,871	2,162
39 Energy used.....million kwh equivalent..	1,266	9	4	5	1	1,254	1	920	117
40 Coal.....1,000 short tons..	38	...	...	...	...	38	...	24	8
41 Fuel oil.....1,000 barrels..	268	3	1	2	...	265	...	223	5
42 Natural gas.....million cu. ft..	944	...	...	...	...	944	...	787	98
43 Electric energy purchased.....million kwh..	37	...	...	...	...	37	...	29	...
44 Electric energy generated and used.....do....	8	...	...	...	...	8	...	1	5
45 Water intake, including mine water used.....million gallons..	1,601	...	...	...	...	1,601	...	1,417	162
46 Per production worker.....do....	0.54	...	...	...	...	0.56	...	1.03	0.53

D Withheld to avoid approximately disclosing figures for individual companies.

NA Not available.

¹In addition, two mercury ores establishments in Alaska were reported.²Idaho, 2 establishments; Arizona, 2 establishments; Nevada, 27 establishments.³Washington, 1 establishment, and Oregon, 13 establishments.⁴New Jersey, Missouri, and North Dakota, 1 establishment each.⁵North Carolina, 3 establishments, and Florida, Alabama, Arkansas, and Oklahoma, 1 establishment each.⁶Montana, 6 establishments, and Idaho, 2 establishments.⁷Washington, 2 establishments, and California, 13 establishments.

MISCELLANEOUS METAL ORES

10K-7

MINERALS, NOT ELSEWHERE CLASSIFIED, INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued
captions, see INTRODUCTION)

Uranium—radium—vanadium ores—Continued				Metallic minerals, not elsewhere classified						
Mountain—Continued				Pacific ⁷	United States, total ⁸	East and South			West ¹⁰	
Arizona	Utah	Nevada	Other States ⁶			Total	South Dakota	Other States ⁹		
42	212	6	8	15	44	24	18	6	21	1
55	221	7	8	15	47	25	19	6	22	2
57	221	7	8	15	45	25	19	6	20	3
...	1	...	...	...	9	3	2	1	6	4
(NA)	(NA)	(NA)	(NA)	(NA)	1,325	270	136	134	1,055	5
(NA)	(NA)	(NA)	(NA)	(NA)	794	328	114	214	466	6
377	1,081	19	42	55	158	64	34	30	94	7
340	772	16	35	19	98	39	11	28	79	8
37	109	...	7	10	20	...	...	...	15	9
17	200	3	7	26	40	25	23	2	15	10
	103	...	3	14	34	24	22	2	10	11
646	1,599	28	71	38	207	68	23	45	139	12
646	(D)	28	71	38	184	66	22	44	118	13
296	953	28	11	20	43	10	3	7	33	14
274	100	...	...	...	58	44	19	25	14	15
76	546	...	60	18	1283	1212	...	1212	1271	16
...		...	...	...	23	2	1	1	21	17
147	562	28	21	32	48	17	5	12	31	18
3,019	138,956	103	227	175	1,307	241	62	179	1,066	19
1,160	3,221	64	141	62	338	113	36	77	334	20
...	471	...	...	46	109	...	...	...	...	21
...	(NA)	...	...	...	...	...	...	...	...	22
1,579	1,632	15	57	36	655	11	4	7	644	23
88	477	5	29	8	41	12	4	8	61	24
...	54	...	...	...	32	...	...	...	...	25
192	3,101	19	...	23	132	105	18	87	27	26
388	2,253	14	10	110	748	602	5	597	146	27
736	6,934	68	47	227	1,077	788	9	779	289	28
304	3,419	57	37	132	121	60	4	56	61	29
...	384	...	...	6	183	98	1	97	85	30
46	927	...	...	5	29	29	...	29	...	31
247	1,714	...	10	36	105	82	...	82	23	32
139	490	11	...	48	639	519	4	515	120	33
14,762	54,248	528	2,376	1,838	18,957	2,151	1,465	686	16,806	34
45	70	33	(D)	(14)	(14)	(14)	(14)	(D)	(D)	35
14,587	51,872	528	1,601	1,526	9,921	1,683	1,315	368	8,238	36
175	2,376	...	775	312	9,036	468	150	318	8,568	37
25	551	...	...	...	80	5	5	...	75	38
24	184	2	6	2	12	2	1	1	10	39
...	6	...	...	...	...	...	...	...	...	40
5	30	1	1	...	3	...	...	...	3	41
...	59	...	...	...	...	...	...	...	...	42
...	6	...	2	...	3	...	...	...	3	43
...	2	...	...	...	...	...	...	...	...	44
11	11	...	...	...	...	...	...	...	...	45
(D)	0.01	...	...	...	...	...	...	...	...	46

⁸In addition, 2 platinum, 2 tin ore, and 1 antimony ore establishments were reported in Alaska.

⁹Connecticut, 2 establishments, and Maine, New York, South Carolina, and Georgia, 1 establishment each.

¹⁰Idaho, 6 establishments; Colorado, 5 establishments; New Mexico, 6 establishments; Nevada, 2 establishments; and Arizona, Oregon, and California, 1 establishment each.

¹¹See table 1, footnote 6.

¹²See table 1, footnote 13.

¹³See table 1, footnote 14.

¹⁴See table 1, footnote 19.

Table 4.—DETAILED STATISTICS FOR THE MISCELLANEOUS METAL ORES
(For explanation of column

Item		Mercury ores industry							
		All types of establishments	Producing establishments				Nonproducing establishments		
			Open-pit and combination open-pit and underground mines ^{1 2}	Underground mines ¹					
				Total	Open stoping, shrinkage stoping, and cut-and-fill stoping ³	Square setting and other mining methods ⁴			
1	Number of operating companies.....	81	38	31	12	19	14		
2	Number of establishments.....	87	38	31	12	19	18		
3	Number of mines.....	87	38	31	12	19	18		
4	Number of mills (or mercury mines with furnaces or retorts)...	75	36	30	11	19	9		
5	Mercury metal produced.....flasks (76 pounds)...	17,487	5,735	11,752	2,994	8,758	...		
6	Value of shipments ⁸.....\$1,000..	4,519	1,440	3,079	768	2,311	...		
7	Value added in mining.....do....	3,355	1,171	2,219	684	1,535	(⁹)		
8	Number of persons engaged, total.....	10,578	161	365	103	262	42		
9	Production and development workers.....do....	372	} 95 {	269	} 85 {	236	27		
10	All other employees.....	10,81		52		26			
11	Proprietors and firm members.....	125		66		44	18	26	15
12	Performing manual labor.....	110		60		42	16	26	8
13	Man-hours worked by production and development workers, total.....1,000..	841	234	575	180	395	32		
14	At mines, total.....do....	706	184	500	138	362	22		
15	Underground and open-pit.....do....	602	144	441	109	332	17		
16	Surface (including mine shops and yards).....do....	104	40	59	29	30	5		
17	At mills.....do....	135	50	75	42	33	10		
18	Man-hours spent on development and exploration work (included above).....do....	73	19	38	5	33	16		
19	Mercury metal produced per man-hour.....flasks (76 pounds)...	21	(¹²)	20	17	22	...		
20	Principal expenses designated below, total.....\$1,000..	103,425	793	2,352	519	1,833	230		
21	Wages of production and development workers.....do....	1,607	} 479 {	1,129	} 390 {	939	114		
22	Salaries of all other employees.....do....	10,365		200		...			
23	Minerals received for milling.....do....	} 1,160 {		763	...	
24	Supplies.....do....			223		75	...		
25	Fuel.....do....	204	84	117	33	84	3		
26	Purchased electric energy.....do....	61	5	55	19	36	1		
27	Contract work.....do....	28	2	13	2	11	13		
28	Purchased machinery installed.....do....	226	97	118	38	80	11		
29	Capital expenditures, total.....do....	515	142	281	83	198	92		
30	Development and exploration of mineral property.....do....	167	45	98	14	84	24		
31	Mill construction.....do....	140	4	115	26	89	21		
32	Other construction.....do....	36	2	21	18	3	13		
33	New machinery and equipment.....do....	116	69	39	19	20	8		
34	Used plant and equipment.....do....	56	22	8	6	2	26		
35	Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	11,705	4,527	6,258	1,442	4,816	920		
36	Per production worker.....	31	(¹²)	23	18	26	(¹²)		
37	Prime movers.....	9,056	4,336	3,855	732	3,123	865		
38	Electric motors driven by purchased energy.....	2,649	191	2,403	710	1,693	55		
39	Horsepower rating of electric motors driven by energy generated at establishments reported.....	637	202	435	40	395	...		
40	Energy used.....million kwh equivalent..	78	23	54	23	31	1		
41	Coal.....1,000 short tons..	...	...	...	...	...	...
42	Fuel oil.....1,000 barrels..	38	12	26	10	16	...		
43	Natural gas.....million cu. ft..	(D)	...	(D)	(D)	...	...
44	Electric energy purchased.....million kwh..	5	...	5	2	3	...		
45	Electric energy generated and used.....do....	1	1	...	...	...	...
46	Water intake, including mine water used.....million gallons..	12	9	3	1	2	...		
47	Per production worker.....do....	0.03	(¹²)	0.01	0.01	0.01	...		

xxx Not applicable.

D Withheld to avoid approximately disclosing figures for individual companies.

¹All mines were operated in conjunction with furnaces or retorts except for two open-pit mines and one underground mine, which together accounted for less than one percent of the total value of shipments.²Four combination open-pit and underground mines account for more than 80 percent of the total value of shipments for this group. Also includes 30 open-pit mines and 4 placer deposit operations, accounting for less than 20 percent and 2 percent, respectively, of the combined value of shipments.³Shrinkage stoping accounts for more than 95 percent of the total.⁴Square setting accounts for more than 90 percent of the total. Includes establishments not reporting their principal method.⁵Includes one establishment classified as a dredge, accounting for less than 10 percent of the employment and principal expenses shown for this group.⁶Includes one mine operated in conjunction with a mill, accounting for more than one-half of the employment and principal expenditures shown for this group.⁷Represents 29 open-pit mines without mills, 7 open-pit mines with mills, 2 combination open-pit and underground mines with mills, 1 underground mine without a mill, 3 dredges without a mill, and 2 dredges with mills.

MISCELLANEOUS METAL ORES

10K-9

INDUSTRIES IN THE UNITED STATES, BY TYPE OF OPERATION: 1954

captions, see INTRODUCTION)

Uranium--radium--vanadium ores industry						Titanium ores and Metallic minerals, not elsewhere classified, industries				
All types of estab- lishments	Producing establishments				Nonproducing estab- lish- ments	All types of estab- lishments	Producing establishments		Nonproducing estab- lish- ments	
	Open-pit mines ⁵	Combination open-pit and underground mines ⁶	Underground mines	Mills only			Mines ⁷	Mills only		
572	42	21	232	5	278	51	41	4	9	1
637	50	21	252	7	307	57	44	4	9	2
636	50	23	256	...	307	53	44	...	9	3
8	...	1	...	7	...	17	11	4	2	4
xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	5
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	14,075	12,489	1,586	...	6
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	11,928	9,239	434	2,255	7
4,081	247	478	1,619	1,001	736	1,002	781	53	168	8
2,944	149	358	1,205	758	474	666	596	37	33	9
523	23	102	90	243	65	295	149	15	131	10
614	75	18	324	...	197	41	36	1	4	11
339	42	16	196	...	85	35	33	1	1	12
6,227	278	(D)	2,525	(D)	863	1,468	1,312	84	72	13
4,119	278	453	2,525	...	863	914	842	...	72	14
3,326	212	377	2,096	...	641	309	289	...	20	15
793	66	76	429	...	222	11,605	11,553	...	52	16
2,108	...	(D)	...	(D)	...	554	470	84	...	17
1,329	50	18	494	4	763	87	18	7	62	18
xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	19
1334,642	1,278	136,207	11,698	1311,320	4,139	9,334	6,647	1,343	1,344	20
11,908	495	1,461	4,751	3,530	1,671	2,735	2,440	130	165	21
2,660	123	570	508	1,226	233	1,411	779	75	557	22
(NA)	...	(NA)	...	(NA)	...	3,456	1,891	1,106	459	23
9,844	14558	143,999	2,904	3,778	709	490	447	13	30	24
2,263	82	177	667	1,147	190	775	740	18	17	26
505	20	...	32	1,449	4	467	350	1	116	27
7,462	(14)	(14)	2,836	1,190	1,332	2,034	667	19	1,348	28
5,336	417	587	2,148	806	1,378	5,036	845	5	4,225	29
14,793	645	3,184	4,810	1,118	5,036	121	14	...	107	30
5,494	263	99	2,137	...	2,995	2,727	346	...	2,381	31
3,052	...	2,416	83	545	8	389	...	...	389	32
1,237	25	46	473	...	693	1,197	360	4	833	33
3,842	190	538	1,604	567	943	641	125	1	515	34
1,168	167	85	513	6	397	64	...	...	...	...
165,264	20,104	10,461	76,464	23,431	34,804	64,798	43,025	1,452	20,321	35
56	135	29	63	31	73	97	72	39	616	36
150,214	19,291	10,193	75,479	11,346	33,905	29,445	19,680	1,015	8,750	37
15,050	813	268	985	12,085	899	35,353	23,345	437	11,571	38
4,609	25	2,157	356	1,822	249	190	190	...	...	39
1,266	23	117	189	887	50	373	363	4	6	40
38	...	8	...	30	...	31	31	...	...	41
268	5	6	50	196	11	31	29	...	2	42
944	4	98	...	838	4	(D)	...	(D)	...	43
37	2	...	2	...	33	76	74	1	1	44
8	...	4	1	2	1	...	...	...	...	45
1,601	1	160	42	1,396	2	2,793	2,763	30	...	46
0.54	0.01	0.45	0.03	1.84	(15)	4.19	4.64	0.81	...	47

⁸See table 1, footnote 6.⁹Value added not computed; the cost of supplies, fuel, purchased electric energy, contract work, and of purchased machinery installed exceeds total capital expenditures by \$35,000.¹⁰Includes 10 employees at central offices, paid \$50,000 in salaries. These offices were not classified by type of operation.¹¹See table 1, footnote 13.¹²See table 1, footnote 19.¹³See table 1, footnote 14.¹⁴The cost of contract work is included with the cost of supplies.¹⁵Less than 5,000 gallons per production worker.

Table 5.—PRODUCTS OF THE MERCURY ORES INDUSTRY, BY STATE, AND TITANIUM CONCENTRATES IN ALL MINERAL INDUSTRIES, FOR THE UNITED STATES: 1954 AND 1939
(For explanation of column captions, see INTRODUCTION)

Product ¹	Unit of measure for quantity	1954					1939 production	
		Production	Shipments and interplant transfers		Stocks (Quantity)		Quantity	Value f.o.b. mine or mill
			Quantity	Value f.o.b. mine or mill	December 31, 1953	December 31, 1954		
		(Quantity)		(\$1,000)				(\$1,000)
UNITED STATES								
MERCURY ORES								
All products and services, total.....	.....	xxx	xxx	² 4,519	xxx	xxx	xxx	² 1,830
Crude ore mined.....	Short tons.....	175,373	xxx	xxx	xxx	xxx	196,397	³ 16
Mercury metal, total ⁴	Flasks (76 pounds)	17,487	18,995	⁵ 4,519	1,693	185	18,222	1,814
Produced from mined ore, total.....	...do.....	17,363	xxx	xxx	xxx	xxx	18,111	1,801
In furnaces.....	...do.....	⁶ 16,460	xxx	xxx	xxx	xxx	16,565	1,640
In retorts.....	...do.....	903	xxx	xxx	xxx	xxx	1,546	161
Produced from old surface ore and dumps.....	...do.....	124	xxx	xxx	xxx	xxx	111	13
CALIFORNIA								
All products and services, total.....	.....	xxx	xxx	² 2,987	xxx	xxx	xxx	² 1,088
Crude ore mined.....	Short tons.....	123,197	xxx	xxx	xxx	xxx	131,790	³ 9
Mercury metal, total ⁴	Flasks (76 pounds)	11,260	11,337	⁵ 2,987	106	29	10,897	1,079
Produced from mined ore, total.....	...do.....	11,154	xxx	xxx	xxx	xxx	⁷ 10,897	⁷ 1,079
In furnaces.....	...do.....	⁶ 10,549	xxx	xxx	xxx	xxx	10,111	} 1,079
In retorts.....	...do.....	605	xxx	xxx	xxx	xxx	786	
Produced from old surface ore and dumps.....	...do.....	106	xxx	xxx	xxx	xxx	(⁷)	(⁷)
OTHER STATES ⁸								
All products and services, total.....	.....	xxx	xxx	² 1,532	xxx	xxx	xxx	² 742
Crude ore mined.....	Short tons.....	52,176	xxx	xxx	xxx	xxx	64,607	³ 7
Mercury metal, total ⁴	Flasks (76 pounds)	6,227	7,658	⁵ 1,532	1,587	156	7,325	735
Produced from mined ore, total.....	...do.....	6,209	xxx	xxx	xxx	xxx	⁷ 7,325	⁷ 735
In furnaces.....	...do.....	5,911	xxx	xxx	xxx	xxx	6,505	} 735
In retorts.....	...do.....	298	xxx	xxx	xxx	xxx	820	
Produced from old surface ore and dumps.....	...do.....	18	xxx	xxx	xxx	xxx	(⁷)	(⁷)
UNITED STATES								
TITANIUM ORES								
Titanium concentrates, total ⁹	Short tons.....	557,276	541,519	¹⁰ 8,647	29,982	45,739	16,471	438
Ilmenite concentrates.....	...do.....	547,981	531,924	¹⁰ 7,455	29,982	45,739	¹¹ 16,471	438
Rutile concentrates.....	...do.....	9,295	9,595	1,192				

¹Data on products were not obtained in the 1954 Census of Mineral Industries for establishments in the uranium-radium-vanadium ores industry. Detailed statistics on products are not shown for the metallic minerals, not elsewhere classified, industry, primarily to avoid approximately disclosing figures for individual companies. Statistics on beryllium concentrates cannot be shown because figures on shipments of beryllium ores to mills were not identified separately from figures on beryllium concentrates. However, on the basis of information on receipts of beryllium ores at mills for concentration, it is estimated that approximately 550 short tons of beryllium concentrates were produced and 650 tons were shipped at a value of about \$320,000. Of this total, it is estimated that the metallic minerals, not elsewhere classified, industry produced approximately 500 tons and shipped 600 tons at a value of about \$300,000.

²See table 1, footnote 6.

³Represents only the value of ore mined but not treated in 1939.

⁴Represents production in all mineral industries, as well as production in the mercury ores industry. No production of mercury was reported by establishments classified in other mineral industries.

⁵Includes the value of crude mercury ore shipped to other mineral establishments for treatment, amounting to less than 0.1 percent of the United States total value shown.

⁶Includes mercury metal produced by chemical extraction, amounting to less than 0.1 percent of the figure shown.

⁷Figures for mercury produced from old surface ore and dumps are included with those for mercury produced from mined ore.

⁸For both years, represents Idaho, Arizona, Nevada, and Oregon, and, in addition for 1939, Arkansas and Texas.

⁹Represents figures for establishments in all mineral industries.

¹⁰Includes the value of a small quantity of titanium ore shipped for concentration, amounting to less than one percent of the total value shown for titanium concentrates.

¹¹Ilmenite concentrates represent approximately 86 percent of the total.

Table 6.—GENERAL STATISTICS FOR MISCELLANEOUS METAL ORES ESTABLISHMENTS CLASSIFIED BY EMPLOYMENT SIZE, BY GEOGRAPHIC DIVISIONS, AND STATES: 1954
(For explanation of column captions, see INTRODUCTION)

Industry, geographic division, State, and number of employees in establishment	Number of establish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expendi- tures (\$1,000)																					
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)																						
MERCURY ORES INDUSTRY																														
United States, total.....	87	4,519	3,355	372	81	841	1,607	365	459																					
0.....	55	137	141	...	...	...	...	...	67																
1-4.....	20	113	60	28	5	49	90	13	28																					
5-9.....	4	84	83	19	}	51	84	}	100																					
10-19.....	3	1,028	915	105		}	199		435	}	118																			
20-49.....	2				3,157		2,156	220	}		542	998	}	146																
50-99.....	2	}	}	}		}				}	}	}		}																
100-249.....	1																													
California, total.....	42	2,987	2,067	230	65	508	1,001	252	219																					
0.....	27	75	80	...	...	...	...	...	12																
1-4.....	9	78	69	11	}	20	33	}	17																					
5-9.....	2	2,834	1,918	219		}	488		968	}	190																			
10-19.....	1				}		}	}	}			}	}	}																
20-49.....	1														}	}	}	}	}	}	}									
50-99.....	1																					}	}	}	}	}	}	}		
100-249.....	1																												}	}
Other States, total.....	45	1,532	1,288	142		16				333	606																			
0.....	28	62	61	55																					
1-4.....	11	35	(2)	17	}	29	57	}	11																					
5-9.....	2	1,435	1,236	125		}	304		549	}	174																			
10-19.....	2				}		}	}	}			}	}	}																
20-49.....	1														}	}	}	}	}	}	}									
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See footnotes at end of table.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 6.—GENERAL STATISTICS FOR MISCELLANEOUS METAL ORES ESTABLISHMENTS CLASSIFIED BY EMPLOYMENT SIZE, BY GEOGRAPHIC DIVISIONS, AND STATES: 1954—Continued

(For explanation of column captions, see INTRODUCTION)

Industry, geographic division, State, and number of employees in establishment	Number of establish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expendi- tures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
URANIUM-RADIUM-VANADIUM ORES INDUSTRY—Con.									
Mountain—Con.									
Colorado, total.....	254	(NA)	(NA)	1,377	254	3,055	5,800	1,315	2,833
0.....	61	(NA)	(NA)	...	...	...	...	...	137
1-4.....	138	(NA)	(NA)	276	20	497	903	82	1,094
5-9.....	37	(NA)	(NA)	184	19	393	697	73	452
10-19.....	7	(NA)	(NA)	86	4	203	395	18	198
20-49.....	4	(NA)	(NA)	101	30	203	399	187	62
50-99.....	3	}	(NA)	730	181	1,759	3,406	955	890
100-249.....	3								
250-499.....	1								
New Mexico, total.....	39	(NA)	(NA)	305	116	609	1,221	639	3,152
0.....	5	...	(NA)	...	...	...	...	...	26
1-4.....	25	(NA)	(NA)	47	2	82	123	9	222
5-9.....	6	(NA)	(NA)	34	1	69	111	2	65
10-19.....	1	}	(NA)	224	113	458	987	628	2,839
20-49 and over.....	1								
250-499.....	1								
Arizona, total.....	55	(NA)	(NA)	3340	(3)	646	3,160	(3)	597
0.....	19	(NA)	(NA)	...	...	...	...	...	51
1-4.....	23	(NA)	(NA)	339	(3)	55	3,104	(3)	128
5-9.....	5	}	(NA)	374	(3)	125	3,277	(3)	252
10-19.....	3								
20-49.....	3								
50-99.....	1	}	(NA)	3,227	(3)	466	3,779	(3)	166
100-249.....	1								
Utah, total.....	221	(NA)	(NA)	772	109	1,599	3,221	471	6,444
0.....	46	(NA)	...	...	...	...	...	...	758
1-4.....	128	(NA)	...	234	23	412	820	65	2,388
5-9.....	34	(NA)	...	202	17	408	836	72	803
10-19.....	7	(NA)	...	97	7	198	391	55	756
20-49.....	5	}	(NA)	239	62	581	1,174	279	1,739
50-99.....	...								
100-249.....	1								
Other States, total.....	28	(NA)	(NA)	364	(3)	124	3,253	(3)	188
0.....	7	(NA)	(NA)	...	...	...	...	...	28
1-4.....	18	(NA)	(NA)	330	(3)	55	3,117	(3)	160
5-9.....	2	}	(NA)	334	(3)	69	3,136	(3)	...
20-49.....	1								
Pacific, total.....	15	(NA)	(NA)	19	10	38	62	46	179
0.....	5	(NA)	(NA)	...	...	...	...	...	}
1-4.....	8	}	(NA)	19	10	38	62	46	
5-9.....	2								

Industry, geographic division, State, and number of employees in establishment	Number of establishments		Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and de- velopment workers (1,000)	Wages and salaries		New capital expendi- tures (\$1,000)
	Titanium ores industry	Metallic minerals, not elsewhere classified, industry			Production and de- velopment workers	All other employees		Production and de- velopment workers (\$1,000)	All other employees (\$1,000)	
TITANIUM ORES AND METALLIC MINERALS, NOT ELSEWHERE CLASSIFIED, INDUSTRIES										
United States, total.....	10	47	14,075	11,928	666	295	1,468	2,735	1,411	4,434
0.....	1	25	68	52	...	...	...	...	...	15
1-4.....	...	13	227	159	19	}	33	55	}	40
5-9.....	...	5	715	349	26		62	98		31	293
10-19.....	3	2	235	50	52	13	108	212	72	80
20-49.....	2	2	1,519	817	71	20	151	235	109	45
50-99.....	...	...	...	...	...	...	...	...	...	...
100-249.....	3	...	11,311	10,501	498	255	1,114	2,135	1,199	3,961
250-499.....	1	...								

NA Not available.

¹Includes 10 employees at central offices, paid \$50,000 in salaries.²The cost of supplies, fuels, purchased electric energy, contract work, and purchased machinery installed exceeds the value of shipments and capital expenditures by \$9,000.³Figures for all other employees are combined with those for production and development workers.

MISCELLANEOUS METAL ORES

10K-13

Table 7.—MONTHLY EMPLOYMENT IN THE MISCELLANEOUS METAL ORES INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES, AND BY TYPE OF OPERATION: 1954

Industry, geographic division, State, and type of operation	Average employ- ment for the year ¹	Number of employees by month											
		January	February	March	April	May	June	July	August	September	October	November	December
MERCURY ORES INDUSTRY													
United States, total.....	453	376	376	386	370	397	409	446	494	496	535	574	570
GEOGRAPHIC DIVISION AND STATE													
Mountain.....	132	79	84	90	103	111	108	136	146	157	184	193	176
Pacific, total.....	321	297	292	296	267	286	301	310	348	339	351	381	394
California.....	295	279	278	289	260	273	279	279	307	308	315	333	339
Other States.....	26	18	14	7	7	13	22	31	41	31	36	48	55
TYPE OF OPERATION													
Producing establishments, total ²	416	359	359	368	352	379	389	423	465	456	470	500	480
Open-pit mines and combination open-pit and underground mines ³ ..	95	69	73	79	90	99	100	104	110	104	107	116	96
Underground mines.....	321	290	286	289	262	280	289	319	355	352	363	384	384
Nonproducing establishments.....	27	8	8	9	9	9	11	13	19	30	55	64	80
URANIUM-RADIUM-VANADIUM ORES INDUSTRY													
United States, total.....	3,467	2,895	2,914	2,960	3,055	3,129	3,357	3,675	3,779	3,847	3,905	3,927	3,971
GEOGRAPHIC DIVISION AND STATE													
East and South, total.....	101	93	99	98	94	90	96	105	115	114	98	96	92
South Dakota.....	37	31	32	32	28	27	30	35	36	44	49	49	48
Other States.....	64	62	67	66	66	63	66	70	79	70	49	47	44
Mountain, total.....	3,337	2,790	2,803	2,850	2,949	3,022	3,243	3,538	3,629	3,692	3,758	3,778	3,823
Colorado.....	1,631	1,503	1,513	1,516	1,527	1,524	1,582	1,691	1,693	1,724	1,738	1,747	1,750
New Mexico.....	421	341	349	359	372	399	419	432	457	460	460	481	489
Arizona.....	340	289	281	271	270	287	322	345	382	411	410	406	414
Utah.....	881	616	619	660	727	759	850	992	1,013	1,015	1,061	1,071	1,097
Other States.....	64	41	41	44	53	53	70	78	84	82	89	73	73
Pacific.....	29	12	12	12	12	17	18	32	35	41	49	53	56
TYPE OF OPERATION													
Producing establishments, total.....	2,928	2,652	2,651	2,676	2,714	2,768	2,907	3,014	3,059	3,090	3,142	3,184	3,234
Open-pit mines ⁴	172	136	150	148	143	144	155	161	153	185	185	188	186
Combination open-pit and under- ground mines ⁵	460	379	374	381	383	415	465	481	504	507	511	536	550
Underground mines.....	1,295	1,156	1,147	1,166	1,204	1,231	1,276	1,349	1,384	1,370	1,424	1,445	1,475
Mills only.....	1,001	981	980	981	984	978	1,011	1,023	1,018	1,028	1,022	1,015	1,023
Nonproducing establishments.....	539	243	263	284	341	361	450	661	720	757	763	743	737
TITANIUM ORES AND METALLIC MINERALS, NOT ELSEWHERE CLASSIFIED, INDUSTRIES													
United States, total.....	961	865	896	902	920	935	962	984	992	1,003	1,003	1,029	1,029
TYPE OF OPERATION													
Producing establishments, total.....	797	785	781	771	783	792	805	820	812	798	795	804	800
Mines ⁶	745	722	721	721	733	740	756	770	765	747	744	754	753
Mills only.....	52	63	60	50	50	52	49	50	47	51	51	50	47
Nonproducing establishments.....	164	80	115	131	137	143	157	164	180	205	208	225	229

¹Represents the sum of the average employment figures for the year as shown in the separate establishment reports. These are the averages shown in other tables of this report. Because of rounding, the sum of such average figures may differ slightly from an average of the January to December totals shown above.

²Excludes 10 employees at central offices. These offices were not classified by type of operation. Also, see table 4, footnote 1.

³See table 4, footnote 2.

⁴See table 4, footnote 5.

⁵See table 4, footnote 6.

⁶See table 4, footnote 7.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 8.—GENERAL STATISTICS FOR PRODUCING MERCURY ORES ESTABLISHMENTS IN THE UNITED STATES CLASSIFIED BY OUTPUT PER MAN-HOUR AND BY TYPE OF OPERATION: 1954

(For explanation of column captions, see INTRODUCTION)

Output per man-hour ¹	Number of establishments			Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
	Total	Open-pit mines and combination open-pit and underground mines	Underground mines			Production and development workers	All other employees		Production and development workers	All other employees	
United States, total.....	69	38	31	4,519	3,390	² 416	(²)	809	² 1,808	(²)	393
Less than 0.010 flasks.....	3	1	2	43	36	² 20	(²)	43	² 85	(²)	64
0.010 to 0.019 flasks.....	4	1	3	462	352	² 61	(²)	129	² 242	(²)	65
0.020 to 0.029 flasks.....	3	1	2	3,753	2,787	261	57	609	1,178	252	195
0.030 to 0.039 flasks.....	1	...	1								
Unclassified ³	58	35	23	261	215	² 17	(²)	28	² 51	(²)	69

¹Flasks of mercury metal (76 pounds per flask) produced per man-hour.²Figures for all other employees are combined with those for production and development workers.³Principally represents a relatively large number of small establishments reporting that proprietors or partners regularly worked at the establishment. Man-hours for these proprietors are not included above and, consequently, significant ratios of output per man-hour could not be computed.

Table 9.—GENERAL STATISTICS FOR MISCELLANEOUS METAL ORES, EXCEPT URANIUM-RADIUM-VANADIUM ORES, ESTABLISHMENTS CLASSIFIED BY THE RATIO OF WAGES AND SALARIES TO VALUE ADDED IN MINING, BY INDUSTRY, FOR THE UNITED STATES: 1954

(For explanation of column captions, see INTRODUCTION)

Industry and ratio of wages and salaries to value added in mining ¹	Number of establishments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
MERCURY ORES INDUSTRY									
United States, total.....	87	4,519	3,355	372	² 81	841	1,607	² 365	459
Less than 0.30.....	4	90	88	5	...	8	14	...	13
0.30-0.39.....	1	2,545	2,190	184	{	{	419	844	{
0.40-0.49.....	1								
0.50-0.59.....	3								
0.60-0.69.....	1	1,687	964	146	{	{	344	615	{
0.70-0.79.....	1								
0.80-0.89.....	1								
0.90-0.99.....	1								
1.00 and over.....	22	60	(³)	37	14	70	134	63	64
Unclassified ⁴	52	137	141	...	...	...	...	...	62
TITANIUM ORES AND METALLIC MINERALS, NOT ELSEWHERE CLASSIFIED, INDUSTRIES									
United States, total.....	57	14,075	11,928	666	295	1,468	2,735	1,411	4,434
Less than 0.30.....	8	1,341	2,899	35	131	77	128	541	3,666
0.30-0.39.....	3	9,727	7,238	398	88	871	1,752	484	435
0.40-0.49.....	1								
0.50-0.59.....	5								
0.60-0.69.....	1	2,636	1,617	151	58	357	576	294	168
0.80-0.89.....	1								
0.90-0.99.....	4								
1.00 and over.....	8	300	154	43	9	87	106	36	69
Unclassified ⁴	26	68	(³)	39	9	76	173	56	81
			52	...	...	...	...	...	15

¹Since figures on value added are not available for the uranium-radium-vanadium ores industry, the ratio of wages and salaries to value added could not be computed for this industry.²Includes figures for 10 employees at central offices paid \$50,000 in salaries. These offices were not classified by the ratio of wages and salaries to value added.³The cost of supplies, fuels, purchased electric energy, contract work, and purchased machinery installed exceeded the value of shipments plus capital expenditures by \$28,000, for the mercury ores industry, and by \$32,000 for the titanium ores and metallic minerals, not elsewhere classified, industries.⁴Represents establishments reporting less than \$500 for wages and salaries.

Table 10.—HORSEPOWER OF POWER EQUIPMENT USED IN THE MISCELLANEOUS METAL ORES INDUSTRIES, BY GEOGRAPHIC DIVISION AND TYPE OF OPERATION: 1954

(For explanation of column captions, see INTRODUCTION)

Industry, geographic division, and type of operation	Aggregate horsepower per production worker	Aggregate horsepower (prime movers and electric motors driven by purchased energy)					Prime movers (horsepower)			
		Total	Loading equipment	Transportation equipment		All other equipment	Total	By type of equipment		
				Highway type	Other			Loading equipment	Transportation equipment	
									Highway type	Other
MERCURY ORES INDUSTRY										
United States, total.....	31	11,705	1,396	3,638	1,107	5,564	9,056	931	3,638	1,072
GEOGRAPHIC DIVISION										
Mountain.....	(¹)	3,477	490	1,430	240	1,317	3,074	931	1,430	1,072
Pacific.....	32	8,228	906	2,208	867	4,247	5,982		2,208	
TYPE OF OPERATION										
Producing establishments, total ²	30	10,785	1,306	3,445	927	5,107	8,191	841	3,445	892
Open-pit mines and com- bination open-pit and underground mines ³	(¹)	4,527	721	2,190	140	1,476	4,336	841	2,190	892
Underground mines.....	23	6,258	585	1,255	787	3,631	3,855		1,255	
Nonproducing establishments.....	(¹)	920	90	193	180	457	865	90	193	180
URANIUM-RADIUM-VANADIUM ORES INDUSTRY										
United States, total.....	56	165,264	13,784	69,032	15,102	67,346	150,214	12,535	69,032	14,945
GEOGRAPHIC DIVISION										
East and South.....	67	5,595	1,148	1,781	490	2,176	5,205	1,148	1,781	490
Mountain.....	56	157,831	12,521	66,306	14,492	64,512	143,483	11,272	66,306	14,455
Pacific.....	(¹)	1,838	115	945	120	658	1,526	115	945	...
TYPE OF OPERATION										
Producing establishments, total.	53	130,460	13,009	53,122	11,653	52,676	116,309	11,790	53,122	11,734
Open-pit mines ⁴	135	20,104	2,631	13,017	2,621	1,835	19,291	2,459	11,517	2,621
Combination open-pit and underground mines ⁵	29	10,461	2,052	3,906	600	3,903	10,193	1,924	3,906	600
Underground mines.....	63	76,464	6,193	32,013	7,177	31,081	75,479	5,608	33,513	7,258
Mills only.....	31	23,431	2,133	4,186	1,255	15,857	11,346	1,799	4,186	1,255
Nonproducing establishments.....	73	34,804	775	15,910	3,449	14,670	33,905	745	15,910	3,211
TITANIUM ORES AND METALLIC MINERALS, NOT ELSEWHERE CLASSIFIED, INDUSTRIES										
United States, total.....	97	64,798	8,568	12,036	10,500	33,694	29,445	3,424	12,036	10,250
TYPE OF OPERATION										
Producing establishments, total.	70	44,477	6,295	7,622	7,075	23,485	20,695	2,586	7,622	7,075
Mines ⁶	72	43,025	6,002	7,260	6,973	22,790	19,680	2,296	7,260	6,973
Mills only.....	39	1,452	293	362	102	695	1,015	290	362	102
Nonproducing establishments.....	616	20,321	2,273	4,414	3,425	10,209	8,750	838	4,414	3,175

See footnotes at end of table.

Table 10.--HORSEPOWER OF POWER EQUIPMENT USED IN THE MISCELLANEOUS METAL ORES INDUSTRIES, BY GEOGRAPHIC DIVISION AND TYPE OF OPERATION: 1954--Con.
(For explanation of column captions, see INTRODUCTION)

Industry, geographic division, and type of operation	Prime movers (horsepower)—Continued			Electric motors (horsepower)							
	By type of equipment— Continued	By use		Total	By type of equipment			By source of energy			
		Driving generators	Not driving generators		Loading equipment	Transport- ation equipment	All other equipment	Driven by purchased energy	Driven by energy generated and used at same establish- ment		
MERCURY ORES INDUSTRY											
United States, total.....	3,415	785	8,271	3,286	465	35	2,786	2,649	637		
GEOGRAPHIC DIVISION											
Mountain.....	964	404	2,670	770	}	465	35	{	720 2,066	403 2,246	367 270
Pacific.....	2,451	381	5,601	2,516							
TYPE OF OPERATION											
Producing establishments, total ² .	3,013	785	7,406	3,231	465	35	2,731	2,594	637		
Open-pit mines and com- bination open-pit and underground mines ³	1,290	259	4,077	393	}	465	35	{	388 2,343	191 2,403	202 435
Underground mines.....	1,723	526	3,329	2,838							
Nonproducing establishments.....	402	...	865	55	...	...	55	55	...
URANIUM-RADIUM-VANADIUM ORES INDUSTRY											
United States, total.....	53,702	8,149	142,065	19,659	1,317	353	17,989	15,050	4,609		
GEOGRAPHIC DIVISION											
East and South.....	1,786	115	5,090	390	...	...	390	390	...
Mountain.....	51,450	8,034	135,449	18,957	1,317	233	17,407	14,348	4,609		
Pacific.....	466	...	1,526	312	...	120	192	312	...		
TYPE OF OPERATION											
Producing establishments, total..	39,663	7,475	108,834	18,511	1,247	115	17,149	14,151	4,360		
Open-pit mines ⁴	2,694	84	19,207	838	172	...	666	813	25		
Combination open-pit and underground mines ⁵	3,763	2,480	7,713	2,425	128	...	2,297	268	2,157		
Underground mines.....	29,100	1,618	73,861	1,341	585	115	641	985	356		
Mills only.....	4,106	3,293	8,053	13,907	362	...	13,545	12,085	1,822		
Nonproducing establishments.....	14,039	674	33,231	1,148	70	238	840	899	249		
TITANIUM ORES AND METALLIC MINERALS, NOT ELSEWHERE CLASSIFIED, INDUSTRIES											
United States, total.....	3,735	818	28,627	35,543	5,219	250	30,074	35,353	190		
TYPE OR OPERATION											
Producing establishments, total..	3,412	818	19,877	23,972	3,784	...	20,188	23,782	190		
Mines ⁶	3,151	818	18,862	23,535	3,781	...	19,754	23,345	190		
Mills only.....	261	...	1,015	437	3	...	434	437	...		
Nonproducing establishments.....	323	...	8,750	11,571	1,435	250	9,886	11,571	...		

¹See table 1, footnote 19.²See table 4, footnote 1.³See table 4, footnote 2.⁴See table 4, footnote 5.⁵See table 4, footnote 6.⁶See table 4, footnote 7.

Table 11.—NUMBER OF POWER LOADING MACHINES IN THE MISCELLANEOUS METAL ORES INDUSTRIES: 1954 AND 1939, AND BY GEOGRAPHIC DIVISIONS: 1954

Type of loading equipment	Mercury ores industry				Uranium-radium-vanadium ores industry					Titanium ores and metallic minerals, not elsewhere classified, industries (United States)	
	United States, total		Mountain	Pacific	United States, total		East and South	Mountain	Pacific	1954	1939
	1954	1939			1954	1939					
Surface loading equipment, total....	11	14	3	8	233	3	14	218	1	40	1
By kind of power used:											
Steam.....	...	...	...	...	...	...	...	...	...	1	...
Electric and Diesel-electric..	...	2	...	...	31	2	...	31	...	15	...
Diesel.....	4	2	...	4	80	...	10	70	...	16	...
Gasoline and other.....	7	12	3	4	122	1	4	117	...	8	1
Power shovels, total.....	8	9	2	6	65	1	10	54	1	11	1
By kind of power used:											
Steam.....	...	...	...	...	...	...	...	...	...	1	...
Electric and Diesel-electric....	...	...	...	...	...	...	...	...	...	3	...
Diesel.....	4	...	...	4	47	...	8	39	...	4	...
Gasoline and other.....	4	9	2	2	18	1	2	15	1	3	1
By dipper or bucket capacity (cubic yards):											
Less than 3.....	8	9	2	6	64	1	10	53	1	10	1
3-5 inclusive.....	...	...	...	...	1	...	...	1	...	1	...
Dragline excavators, total ³.....	...	2	...	...	5	...	...	5	...	10	1
By kind of power used:											
Electric and Diesel-electric....	...	2	...	...	...	...	...	...	...	2	...
Diesel.....	...	...	...	...	1	...	...	1	...	7	...
Gasoline and other.....	...	...	...	...	4	...	...	4	...	1	1
Scraper loaders, total.....	3	3	1	2	64	2	3	61	...	10	...
By kind of power used:											
Electric and Diesel-electric....	...	...	...	...	5	2	...	5	...	2	...
Diesel.....	...	...	...	...	28	...	2	26	...	4	...
Gasoline and other.....	3	3	1	2	31	...	1	30	...	4	...
By rated horsepower:											
Less than 10.....	2	2	...	2	10	2	...	10	...	...	...
10-25 inclusive.....	...	1	...	...	6	...	1	5	...	5	...
26-100 inclusive.....	1	...	1	...	47	...	2	45	...	3	...
More than 100.....	...	...	...	...	1	...	...	1	...	2	...
Cranes and hoists, total.....	...	...	...	...	98	...	1	97	...	4	...
By kind of power used:											
Electric and Diesel-electric....	...	...	...	...	25	...	...	25	...	3	...
Diesel.....	...	...	...	...	4	...	...	4	...	1	...
Gasoline and other.....	...	...	...	...	69	...	1	68	...	...	...
Dredges (electric and Diesel-electric)	...	...	...	...	1	...	...	1	...	5	...
Underground loading equipment, total	73	...	24	49	312	3	5	303	4	1	...
By kind of power used:											
Compressed air.....	68	...	22	46	275	3	5	266	4	1	...
Electric and Diesel-electric..	5	...	2	3	12	...	...	12	...	...	...
Diesel.....	...	...	...	...	25	...	...	25	...	...	...
Shovel loaders requiring a minimum working height of 8 feet or less, total.....	18	...	4	14	88	3	2	85	1	1	...
By kind of power used:											
Compressed air.....	16	...	2	14	79	3	2	76	1	1	...
Electric and Diesel-electric....	2	...	2	...	2	...	...	2	...	...	...
Diesel.....	...	...	...	...	7	...	...	7	...	...	...
Shovel loaders requiring a minimum working height of more than 8 feet, total.....	...	...	...	...	22	...	3	18	1	...	...
By kind of power used:											
Compressed air.....	...	...	...	...	12	...	3	8	1	...	...
Electric and Diesel-electric....	...	...	...	...	1	...	...	1	...	...	...
Diesel.....	...	...	...	...	9	...	...	9	...	...	...
Scraper loaders (including slushers), total.....	55	...	20	35	202	...	...	200	2	...	...
By kind of power used:											
Compressed air.....	52	...	20	32	184	...	...	182	2	...	...
Electric and Diesel-electric....	3	...	...	3	9	...	...	9	...	...	...
Diesel.....	...	...	...	...	9	...	...	9	...	...	...
By rated horsepower:											
Less than 10.....	45	...	20	25	154	...	...	153	1	...	...
10-25 inclusive.....	8	...	...	8	37	...	...	36	1	...	...
26-100 inclusive.....	2	...	...	2	11	...	...	11	...	...	...
More than 100.....	...	...	...	...	...	...	...	...	...	...	...

¹In addition, 8 bulldozers were reported for the mercury ores industry, 51 for the uranium-radium-vanadium ores industry, and 3 for the titanium ores and metallic minerals, not elsewhere classified, industries. ²The three scraper loaders were driven by compressed air. ³All less than 3 cubic yards dipper or bucket capacity.

Table 12.—MATERIALS, SUPPLIES, FUELS, AND ELECTRIC ENERGY USED IN THE MISCELLANEOUS METAL ORES INDUSTRIES, BY GEOGRAPHIC DIVISIONS: 1954

(For explanation of line captions, see INTRODUCTION)

Item	Unit of measure for quantity	Mercury ores industry							
		United States, total		Mountain		Pacific			
		Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)		
Mercury ore treated, total.....	Short tons.....	1 ¹ 73,027	(¹)	43,529	...	1 ¹ 29,498	(¹)		
Mined ore, total.....	...do.....	170,052	xxx	(D)	xxx	(D)	xxx		
Treated in furnaces.....	...do.....	2 ¹ 57,972	xxx	39,962	xxx	2 ¹ 18,010	xxx		
Treated in retorts.....	...do.....	12,080	xxx	}	3,567	xxx	11,488	xxx	xxx
Material from old surface ore and dumps.....	...do.....	2,975	xxx						
Supplies used, total.....	.....	xxx	1 ¹ ,160	xxx	249	xxx	1 ¹ 911		
Explosives.....	1,000 pounds.....	310	64	60	16	250	48		
Steel mill shapes and forms.....	Short tons.....	163	24	(D)	}	(D)	}	1 ¹ 863	xxx
All other supplies.....	.....	xxx	1 ¹ ,072	xxx		xxx			
Fuels used, total.....	Million kwh equivalent.	73	204	24	90	49	114		
Coal ²	1,000 short tons..	(⁶)	2	(⁶)	2	...	...
Fuel oil ⁷	1,000 barrels....	38	182	13	80	25	102		
Natural gas.....	Million cu. ft....	(D)	}	...	}	(D)	}	12	xxx
Other fuels.....	.....	xxx		xxx		xxx			
Electric energy purchased.....	Million kwh.....	5	61	1	9	4	52		
Electric energy generated and used.....	...do.....	1	xxx	...	xxx	1	xxx		
Uranium-radium-vanadium ores industry									
United States, total		East and South		Mountain		Pacific		Titanium ores and Metallic minerals, not elsewhere classified, industries (United States)	
Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
Mercury ore treated, total.....	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Mined ore, total.....	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Treated in furnaces.....	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Treated in retorts.....	}	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Material from old surface ore and dumps.....									
Supplies used, total.....	xxx	9,844	xxx	72	xxx	9,736	xxx	36	xxx
Explosives.....	(NA)	}	(NA)	}	(NA)	}	(NA)	}	1,014
Steel mill shapes and forms.....	(NA)		(NA)		(NA)		(NA)		287
All other supplies.....	xxx	9,844	xxx	72	xxx	9,736	xxx	36	xxx
Fuels used, total.....	1,229	2,263	10	434	1,217	2,230	2	48	297
Coal ²	38	238	...	...	38	238	...	...	31
Fuel oil ⁷	268	1,036	3	11	265	1,025	...	...	31
Natural gas.....	944	204	...	...	944	204	...	...	(D)
Other fuels.....	xxx	785	xxx	}	xxx	763	xxx	}	58
Electric energy purchased.....	37	505	(⁶)		37	496	(⁶)		775
Electric energy generated and used.....	8	xxx	...	xxx	8	xxx	...	xxx	xxx

xxx Not applicable.

D Withheld to avoid approximately disclosing figures for individual companies.

NA Not available.

¹Less than two percent of the total quantity of ore treated was received from other establishments. The cost of ore received for milling is included with the cost of all other supplies.²Includes ore treated chemically, amounting to less than 0.1 percent of the total for the United States.³Includes the cost of minerals received for milling.⁴Includes the cost of purchased electric energy.⁵Entirely bituminous coal and lignite for the uranium-radium-vanadium ores industry. Most of the coal for the balance of the miscellaneous metal ores industries was reported by establishments indicating they consumed both bituminous coal and anthracite.⁶Less than one-half of the unit of measure specified.⁷Principally distillate fuel oil. Less than one-fourth of the total fuel oil consumed was residual fuel oil or was reported by establishments reporting combined figures for distillate and residual fuel-oils or not specifying the kind of fuel oil consumed.

MISCELLANEOUS METAL ORES

10K-19

Table 13.—WATER USE IN THE MISCELLANEOUS METAL ORES INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES AND BY TYPE OF OPERATION: 1954

(For explanation of column captions, see INTRODUCTION)

Industry, geographic division, State, and type of operation	Number of produc- tion and develop- ment workers	Value added in mining (\$1,000)	Water intake (except mine water)			Water dis- charged (except mine water) (Million gallons)	Mine water (Million gallons)		Gross water use, in- cluding recircu- lation (Million gallons)	Percent of total water intake (except mine water) by principal source					
			Million gallons	Million gallons per pro- duction worker ¹	Gallons per dollar value added		Used	Drained and dis- charged		Pub- lic water sys- tems	Com- pany sur- face water sys- tems	Com- pany ground water sys- tems	Combined public water and company surface water systems	Not spec- ified	
MERCURY ORES INDUSTRY															
United States, total...	372	3,355	10	0.03	3	7	2	46	12	...	20	80	...	...
GEOGRAPHIC DIVISION															
Mountain.....	116	1,186	5	(²)	4	5	...	...	5	...	...	100	...	...
Pacific.....	256	2,169	5	0.02	2	2	2	46	7	...	40	60	...	...
TYPE OF OPERATION															
Producing establishments, total.....	(D)	3,390	10	(D)	3	7	2	46	12	...	20	80	...	...
Open-pit mines and combination open-pit and underground mines ³	(D)	1,171	8	(D)	7	6	1	...	9	...	13	87	...	...
Underground mines ³	269	2,219	2	0.01	1	1	1	46	3	...	50	50	...	...
Nonproducing establish- ments.....	(D)	(⁴)	...	...	...	...	...	...	...	...	...	...	...	...
URANIUM-RADIUM-VANADIUM ORES INDUSTRY															
United States, total...	2,944	(NA)	1,600	0.54	(NA)	1,504	1	3	1,601	(⁵)	51	36	(⁵)	13	
GEOGRAPHIC DIVISION AND STATE															
East and South.....	83	(NA)	...	...	...	...	...	...	...	...	...	...	...	...
Mountain, total.....	2,842	(NA)	1,600	0.56	(NA)	1,504	1	1	1,601	(⁵)	51	36	(⁵)	13	
Colorado.....	1,377	(NA)	1,417	1.03	(NA)	1,355	...	1	1,417	...	57	28	...	15	
New Mexico.....	305	(NA)	162	0.53	(NA)	131	...	...	162	1	...	98	...	1
Arizona.....	(D)	(NA)	11	(D)	(NA)	18	...	...	11	...	...	100	...	...
Utah.....	772	(NA)	10	0.01	(NA)		1	...	11	...	10	20	30	40	
Other States.....	(D)	(NA)	...	...	...	...	...	...	...	...	...	...	...	...
Pacific.....	19	(NA)	...	...	...	...	...	2	...	...	...	...	...	...
TYPE OF OPERATION															
Producing establishments, total.....	2,470	(NA)	1,598	0.65	(NA)	1,502	1	1	1,599	(⁵)	51	36	(⁵)	13	
Mines ⁶	1,712	(NA)	202	0.12	(NA)	164	1	1	203	1	6	85	2	6	
Mills only.....	758	...	1,396	1.84	(NA)	1,338	...	...	1,396	...	58	28	...	14
Nonproducing establish- ments.....	474	...	2	(²)	(NA)	2	...	2	2	...	...	...	...	100
TITANIUM ORES AND METALLIC MINERALS, NOT ELSEWHERE CLASSIFIED, INDUSTRIES															
United States, total...	666	11,928	2,793	4.19	234	743	...	53	20,000	(⁵)	27	73	...	...
TYPE OF OPERATION															
Producing establishments, total.....	633	9,673	2,793	4.41	289	743	...	53	20,000	(⁵)	27	73	...	...
Mines ⁷	596	9,239	2,763	4.64	299	713	...	53	19,956	...	27	73	...	...
Mills only.....	37	434	30	0.81	69	30	...	...	44	7	...	93	...	...
Nonproducing establish- ments.....	33	2,255	...	...	...	...	...	...	...	...	...	...	...	...

D Withheld to avoid approximately disclosing figures for individual companies.

NA Not available.

¹For computations of water intake per production worker, including mine water used, see tables 1, 3, and 4.²See table 1, footnote 19.³See table 4, footnotes 1 and 2.⁴See table 4, footnote 9.⁵Less than 0.5 percent.⁶Represents mines only and mines with mills.⁷See table 4, footnote 7.

COAL MINING

11A-1

Coal Mining

This report shows 1954 Census of Mineral Industries statistics for establishments classified in Major Groups 11, Anthracite Mining, and 12, Bituminous Coal and Lignite Mining. These groups comprise establishments primarily engaged in producing coal or in developing coal mines. Statistics in Table 1 of this report represent all industries in the two major groups combined; the remaining tables show separate industry figures for each group. More complete statistics for each group and a description of the types of establishments classified in each are provided in the following separate reports:

<u>Report</u>	<u>Industries Covered</u>
MI-11B—Anthracite Mining	<ul style="list-style-type: none"> 1111—Anthracite 1112—Anthracite stripping contract services 1113—Anthracite contract services, except stripping
MI-12A—Bituminous coal and Lignite Mining and	<ul style="list-style-type: none"> 1211—Bituminous coal 1212—Lignite
MI-12B—Distribution of Bituminous Coal and Lignite	<ul style="list-style-type: none"> 1213—Bituminous coal and lignite mining contract services

Establishments were classified by industry on the basis of the kind of coal produced—anthracite, bituminous coal, and lignite; or in the case of contractors, on the basis of the industry principally served and the principal kind of work done. The statistics for anthracite (Major Group 11) relate only to its production in eastern Pennsylvania, including, because of its proximity to the anthracite counties, the semianthracite produced in the Bernice Basin in Sullivan County. The statistics for bituminous coal and lignite (Major Group 12) cover all other coal mining activity. Separate industry figures are shown for bituminous coal, including subbituminous, semianthracite, and all coal sometimes classified as anthracite mined outside of Pennsylvania, and for lignite mining.

The combined value of shipments of all industries included in these two major groups in the United States amounted to \$2,477 million in 1954. Of this total, the anthracite mining in-

dustries accounted for \$408 million and the bituminous coal and lignite mining industries for \$2,068 million. These figures contain some duplication, since they include the value of raw coal sold or transferred to other establishments in the same industries for preparation or for resale as marketable raw coal, amounting to \$379 million for the two groups, as well as the value of shipments of prepared coal recovered from such raw coal. Net shipments in 1954 amounted to \$2,098 million, with the coal industries accounting for \$2,037 million. The coal contract services industries, with receipts amounting to \$60 million, accounted for the remainder.

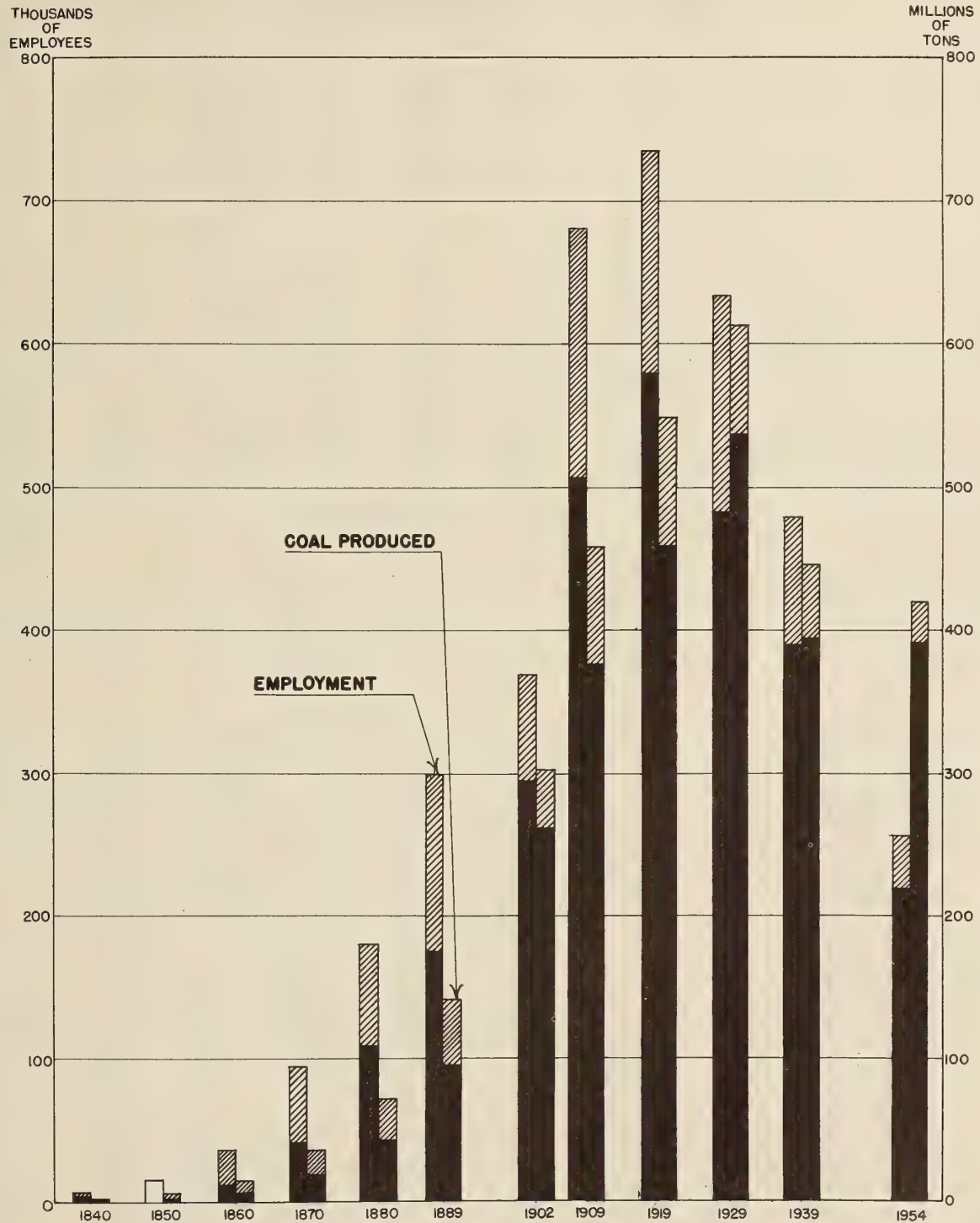
Net coal shipments in the United States in 1954 were 420 million tons, representing 29 million tons of anthracite, 387 million tons of bituminous coal, and 4 million tons of lignite. These figures exclude coal produced and used at the same establishment for power or heat, which in 1954 amounted to nearly one and one-half million tons.

The production of coal was less in 1954 than in 1939, the year covered by the preceding Census of Mineral Industries, and according to annual statistics published by the Bureau of Mines, lower than in any of the intervening years. This was primarily due to a decreased demand for coal. During the year many mines were closed and companies went out of business. As a result, it was difficult to contact all companies which operated only part of the year, and quite incomplete data were obtained regarding some of the smaller establishments. In such cases the reports were completed by estimate on the basis of similar reports for the same areas.

The report forms used by the Bureau of the Census for the anthracite, anthracite stripping contract services, and bituminous coal and lignite industries, exclusive of the special form for the anthracite contract services, except stripping, and the bituminous coal and lignite mining contract services, also provided information required by the coal divisions of the Bureau of Mines for their annual commodity, employment, and mechanical equipment statistics. Some differences occur in the similar statistics compiled by the two agencies, arising principally from differences in methods followed and objectives sought in compiling and presenting the results. In general, the figures on products differ by less than one percent. Reasons for differences in the statistics published by the two agencies are discussed in detail in the separate industry reports.

COAL MINING IN THE UNITED STATES: 1840-1954

▨ ANTHRACITE ■ BITUMINOUS COAL □ COAL UNSPECIFIED



MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 1.—COMPARATIVE STATISTICS FOR THE COAL MINING INDUSTRIES IN THE UNITED STATES:

(For explanation of line captions and for statement on the minimum

Item	1954				1959			
	Coal mining industries, total	Coal industries	Coal stripping contract services ²	Coal mining contract services, except stripping ³	Coal mining industries, total	Coal industries	Coal stripping contract services ²	Coal mining contract services, except stripping ³
1 Number of operating companies.....	7,397	7,126	268	28	5,539	5,437	58	45
2 Number of establishments.....	8,291	7,994	269	28	(NA)	(NA)	(NA)	(NA)
3 Number of mines, culm banks, and dredges.....	8,081	8,081	xxx	xxx	6,365	6,365	xxx	xxx
4 Number of preparation plants and dredges.....	850	850	xxx	xxx	562	562	xxx	xxx
5 Net production of coal, total ⁸.....1,000 short tons..	420,364	420,364	(⁹)	xxx	446,572	446,572	(⁹)	(NA)
6 From underground operations.....do....	305,840	305,840	xxx	xxx	10,399,864	10,399,864	xxx	xxx
7 From strip-pit, auger, culm bank, and dredge operations.....do....	114,524	114,524	(⁹)	xxx	10,46,708	10,46,708	(⁹)	xxx
8 Net shipments of coal ⁸.....do....	419,939	419,939	xxx	xxx	(NA)	(NA)	xxx	xxx
9 Value of shipments, total ⁸.....\$1,000..	2,476,614	2,416,123	58,008	2,483	(NA)	(NA)	10,936	1,154
10 Raw coal sold or transferred for preparation or for resale.....do....	378,887	378,887	xxx	xxx	(NA)	(NA)	xxx	xxx
11 Net shipments, total ⁸.....do....	2,097,727	2,037,236	58,008	2,483	932,553	920,463	10,936	1,154
12 Coal net shipments ⁸.....do....	2,030,536	2,030,536	xxx	xxx	917,363	917,363	xxx	xxx
13 All other products and services.....do....	67,191	6,700	58,008	2,483	15,190	3,100	10,936	1,154
14 Value added in mining.....do....	1,615,219	1,572,957	40,269	1,993	764,697	756,615	7,126	956
15 Number of persons engaged, total.....	266,393	259,953	6,116	324	484,347	481,136	2,702	509
16 Production and development workers.....	232,681	227,147	5,270	264	454,056	451,174	2,461	421
17 All other employees.....	23,614	23,009	570	35	25,314	25,089	185	40
18 Proprietors and firm members.....	10,098	9,797	276	25	4,977	4,873	56	48
19 Performing manual labor.....	7,550	7,352	179	19	3,570	3,528	21	21
20 Man-hours worked by production and development workers, total.....1,000..	374,035	365,372	8,240	423	670,164	665,422	4,038	704
21 Underground (mining and development).....do....	261,826	261,712	xxx	114	1,4531,413	1,4531,413	xxx	
22 Strip-pit (stripping overburden and mining), auger mining, culm bank, and dredge.....do....	36,613	28,640	7,973	...	1,419,262	1,415,224	1,403,038	(NA)
23 Preparation plant and other surface (including tipples, shops and yards, and auxiliary units).....do....	75,596	75,020	267	309	1,498,070	1,498,070	(15)	
24 Net coal produced per man-hour...short tons..	1.12	1.15	xxx	xxx	0.67	0.67	xxx	xxx
25 Principal expenses designated below, total.....\$1,000..	1,870,024	1,829,002	39,217	1,805	764,582	756,058	7,725	799
26 Wages of production and development workers.....do....	878,795	858,030	19,732	1,033	539,986	536,326	3,166	494
27 Salaries of all other employees.....do....	131,439	128,277	2,948	214	56,740	55,884	749	107
28 Raw coal received for preparation.....do....	323,801	323,801	xxx	xxx			xxx	xxx
29 Raw coal received for resale without preparation.....do....	62,065	62,065	xxx	xxx	(NA)	(NA)		
30 Supplies.....do....	289,878	278,084	11,301	493	114,005	110,931	2,956	118
31 Fuel ¹⁶.....do....	21,043	17,989	3,000	54	9,352	8,654	619	79
32 Purchased electric energy.....do....	56,589	56,163	418	8	31,419	31,324	94	1
33 Contract work.....do....	106,414	104,593	1,818	3	13,080	12,939	141	(NA)
34 Purchased machinery installed.....do....	130,910	124,755	6,038	117			(NA)	(NA)
35 Capital expenditures, total.....do....	129,305	124,284	4,836	185	(NA)	(NA)	1,000	50
36 Development and exploration of mineral property.....do....	5,039	5,039	xxx	xxx			xxx	xxx
37 Preparation plant construction and major alterations.....do....	24,468	24,468	xxx	xxx	7,092	7,092	xxx	xxx
38 Other construction.....do....	11,941	11,762	111	68			899	
39 New machinery and equipment.....do....	70,973	67,691	3,220	62	17,25,353	24,404		1,750
40 Used plant and equipment.....do....	16,884	15,324	1,505	55	3,289	3,188	101	
41 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....1,000..	7,838	7,239	588	11	4,465	4,383	71	11
42 Per production worker.....do....	34	31	112	42	10	10	29	26
43 Prime movers.....do....	3,359	2,833	519	7	181,422	1,360	62	
44 Electric motors driven by purchased energy.....do....	4,479	4,406	69	4	183,032	3,023	9	(NA)
45 Horsepower rating of electric motors driven by energy generated at the establishment.....do....	227	204	23	...	990	990	...	

See footnotes at end of table.

1954, 1939, 1935, 1929, 1919, 1909, 1902, 1889, 1880, 1870, 1860, 1850, AND 1840

size of establishments included for each year, see INTRODUCTION)

1935 ¹			Coal industries										
Coal mining industries, total	Coal industries	Coal stripping contract services ²	1929	1919	1909	1902	1889	1880	1870	1860	1850	1840	
(NA)	(NA)	(NA)	(NA)	(NA)	3,742	4,528	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	1
(NA)	(NA)	(NA)	5,193	6,916	4,760	(NA)	(NA)	48,419	1,566	622	510	(NA)	2
6,661	56,661	xxx	5,942	8,842	6,504	6,021	712,552	(NA)	(NA)	(NA)	(NA)	(NA)	3
(NA)	(NA)	xxx	(NA)	539	6424	6369	6343	6275	(NA)	(NA)	(NA)	(NA)	4
424,413	424,413	(⁹)	611,989	548,597	457,940	301,591	7141,230	471,482	36,823	14,334	6,446	2,071	5
(NA)	(NA)	xxx	587,331	541,360	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	6
(NA)	(NA)	(⁹)	24,658	7,237	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	7
(NA)	(NA)	xxx	601,200	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	8
(NA)	(NA)	(NA)	(NA)	1,510,062	550,828	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	9
(NA)	(NA)	(NA)	(NA)	11433	xxx	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	10
(NA)	868,826	(NA)	1,351,548	1,509,629	550,828	367,032	7160,227	495,758	73,525	20,244	7,174	7,174	11
867,691	867,691	xxx	,461	1,507,835	550,584	367,032	7160,227	495,758	73,525	20,244	7,174	7,174	12
(NA)	1,135	(NA)	1,014	1,794	244	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	13
(NA)	729,559	(NA)	1,140,732	1,251,882	462,338	327,842	138,244	84,159	67,856	17,491	6,928	(NA)	14
553,182	549,927	3,255	636,713	739,019	684,274	12367,756	299,559	179,989	94,754	36,486	15,118	6,811	15
527,864	524,811	3,053	601,636	693,641	658,156	350,329	291,479	179,989	94,754	36,486	15,118	6,811	16
23,786	23,584	202	32,056	40,977	22,182	17,427	8,080						17
131,532	131,532	(NA)	3,021	4,401	3,936								18
				1,966	1,790								19
													20
	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	21
													22
													23
	(NA)	xxx	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	24
	705,056	7,028	1,095,631	1,233,405	476,545	276,807	131,113	67,511	49,986	12,403	4,315	(NA)	25
	519,041	3,738	804,886	893,481	362,991	220,198	103,426	55,912	44,317	9,650	4,069	(NA)	26
	46,748	442	79,929	81,744	25,064	17,419	5,704					(NA)	27
				433	...							(NA)	28
	(NA)	xxx	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	29
(NA)	98,660	2,185	149,927	202,822	73,673			11,599	5,669	2,753	246	(NA)	30
	8,438	555	14,949	37,307	10,708	37,540	18,828	...	...	...	...	(NA)	31
	32,169	108	37,248	13,191								(NA)	32
			8,692	4,427	4,109	1,650	3,155					(NA)	33
			40,527	(NA)								(NA)	34
			(NA)									(NA)	35
			24,830	37,488		(NA)	(NA)	(NA)	(NA)	(NA)		(NA)	36
			(NA)	(NA)								(NA)	37
	(NA)	(NA)								(NA)	(NA)	(NA)	38
												(NA)	39
												(NA)	40
			4,167	3,058	1,909	955	(NA)	132	63				41
			7	4	3	3	(NA)	1	1				42
			1,340	2,168	1,882	953	208	132	63				43
			2,827	890	27	2		...	...				44
							8						45
			894	893	376	72		...	...				45

Table 1.—COMPARATIVE STATISTICS FOR THE COAL MINING INDUSTRIES IN THE UNITED STATES:

(For explanation of line captions and for statement on the minimum

Item	1954				1939			
	Coal mining industries, total	Coal industries	Coal stripping contract services ²	Coal mining contract services, except stripping ³	Coal mining industries, total	Coal industries	Coal stripping contract services ²	Coal mining contract services, except stripping ³
46 Energy used.....million kwh equivalent..	22,549	21,587	947	15	42,303	42,042	261	(NA)
47 Coal produced and used at same establishment.....1,000 short tons..	1,356	1,356	xxx	xxx	5,111	5,110	xxx	xxx
Fuel purchased:								
48 Coal.....do....	220	216	4	...			1	
49 Fuel oil.....1,000 barrels..	2,454	2,081	368	5	249	174	75	
50 Gas (natural and manufactured).....million cu.ft..	508	508	...	...	103	103	...	(NA)
51 Electric energy purchased....million kwh..	4,359	4,334	25	...	2,549	2,540	9	
52 Electric energy generated and used.....do....	241	226	15	...	990	990	...	

NA Not available.

¹Represents producing operations only.²For 1954, represents the Anthracite stripping contract services industry and subindustry figures for establishments primarily engaged in Bituminous coal and lignite stripping and auger mining contract services. For 1939 and 1935, represents the Anthracite stripping contract services industry only. Separate statistics are not available for these years for Bituminous coal and lignite stripping contract services.³For 1954, represents the Anthracite contract services, except stripping, industry and subindustry figures for establishments primarily engaged in Bituminous coal and lignite contract services, except stripping and auger mining. For 1939, includes Bituminous coal and lignite stripping contract services, if any. Separate statistics for such services are not available.⁴Includes data for 5,148 bituminous coal and lignite mines, producing 917 thousand tons of coal valued at \$1,093 thousand, representing "irregular" operations for which no other data are available.⁵Represents number of bituminous coal and lignite mines and number of anthracite establishments.⁶For 1909, represents anthracite breakers, washeries, and dredges only; and for 1902, 1889, and 1880 represents anthracite breakers and washeries only. There was very little preparation of bituminous coal in these years.⁷Includes data for 9,920 "local mines and farmers' banks," producing about 2 percent of all bituminous coal and lignite, for which no data are available on labor, expenditures, or horsepower.⁸"Net production" represents the clean-coal equivalent of all coal mined, based on the location of the mine, including coal produced and used at the same establishment for power or heat. For 1954, coal "net shipments" represents all marketable coal for shipment and includes marketable raw coal for shipment direct from the mine plus the cleaned coal for shipment from the preparation plant, but excludes raw coal sold or transferred for preparation and coal produced and used at the same establishment for power and heat. Figures for value of net shipments for years prior to 1954 represent net production. The "net shipments" figures eliminate the duplication in "total" shipments which results from inclusion of the value of both the raw coal sold or transferred for preparation and the clean coal recovered therefrom.

1954, 1939, 1935, 1929, 1919, 1909, 1902, 1889, 1880, 1870, 1860, 1850, AND 1840—Continued
size of establishments included for each year, see INTRODUCTION)

1935 ¹			Coal industries																		
Coal mining industries, total	Coal industries	Coal stripping contract services ²	1929	1919	1909	1902	1889	1880	1870	1860	1850	1840									
}	(NA)	(NA)	80,460	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	46								
		xxx	}	10,203	20,705	17,992	9,996						5,382	47							
		(NA)												}	18	4	(NA)	(NA)	(NA)	(NA)	48
		(NA)																			49
		}	(NA)	}	303	866	(NA)						(NA)	(NA)	50						
															(NA)	2,514	(NA)	51			
																		943	(NA)	52	

⁹Coal mined by contractors is included in the production shown for the coal industries.

¹⁰For anthracite mining, census information on the net production by method of mining was not obtained for 1939. For combinations with bituminous coal and lignite statistics, estimates of this anthracite detail have been prepared, based partly on the census statistics for quantity of raw coal mined by the different methods and partly on published statistics of the Bureau of Mines.

¹¹Represents "cost of coal purchased as a material or for resale." It is not clear whether, as in 1954, this figure includes the estimated value of coal transferred by a company from its mines to a separately operated preparation plant and of coal received for custom preparation.

¹²Figures for average employment were reduced to a 300-day basis for establishments which operated for a shorter period.

¹³Represents the Bituminous coal and Lignite industries only.

¹⁴Excludes man-hours worked in the Bituminous coal and Lignite industries on days when the mine was not active for production or development work. Also, excludes man-hours of the Coal contract services, except stripping, industries.

¹⁵Man-hours for "Other surface" operations are included with those for "Strip pit, auger mining, culm bank, and dredge."

¹⁶For 1954 and 1880 excludes, but for 1939 and most other years includes, the value of coal produced and used at the same establishment for power and heat.

¹⁷The bracketed figure for the Contract stripping services industry is included in the total for all Coal mining industries with "New machinery and equipment."

¹⁸Excludes figures for the Coal mining contract services, except stripping, industry.

Table 2.--DETAILED STATISTICS FOR THE COAL MINING INDUSTRIES IN THE UNITED STATES, BY INDUSTRY: 1954

(For explanation of line captions, see INTRODUCTION)

Item	Coal mining industries, total	Anthracite mining industries				Bituminous coal and lignite mining industries				
		Total	Anthracite industry	Anthracite stripping contract services industry	Anthracite contract services, except stripping, industry	Total	Bituminous coal industry	Lignite industry	Bituminous coal and lignite mining contract services industry	
									Stripping and auger mining contract service sub-industry	Contract services, except stripping, sub-industry
Number of operating companies.....	7,397	1,296	1,160	131	13	6,104	5,913	56	137	15
Number of establishments.....	8,291	1,436	1,291	132	13	6,855	6,643	60	137	15
Number of mines, culm banks, and dredges	8,081	1,237	1,237	xxx	xxx	6,844	6,784	60	xxx	xxx
Number of preparation plants.....	824	196	196	xxx	xxx	628	628	...	xxx	xxx
Net production of coal,										
total ¹.....1,000 short tons..	420,364	29,255	29,255	(²)	xxx	391,109	386,864	4,245	(²)	xxx
From underground operations....do....	305,840	16,860	16,860	xxx	xxx	288,980	288,932	48	xxx	xxx
From strip-pit operations....do....	105,704	8,043	8,043	(²)	xxx	97,661	93,464	4,197	(²)	xxx
From auger operations....do....	4,468	xxx	xxx	xxx	xxx	4,468	4,468	...	(²)	xxx
From culm-bank operations....do....	3,637	3,637	3,637	(²)	xxx	xxx	xxx	xxx	xxx	xxx
From dredge operations....do....	715	715	715	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Net shipments of coal ¹.....do....	419,939	28,695	28,695	xxx	xxx	391,244	387,006	4,238	xxx	xxx
Value of shipments, total ¹.....\$1,000..	2,476,614	408,431	365,536	42,048	847	2,068,183	2,040,200	10,387	15,960	1,636
Raw coal sold or transferred for preparation or for resale....do....	378,887	117,023	117,023	xxx	xxx	261,864	261,864	...	xxx	xxx
Net shipments, total ¹.....do....	2,097,727	291,408	248,513	42,048	847	1,806,319	1,778,336	10,387	15,960	1,636
Coal net shipments ¹.....do....	2,030,536	246,276	246,276	xxx	xxx	1,784,260	1,773,930	10,330	xxx	xxx
Electric energy generated and sold.....do....	4,029	1,740	1,740	...	...	2,289	2,289	...	...	...
Other products and services....do....	63,162	43,392	497	42,048	847	19,770	2,117	57	15,960	1,636
Value added in mining.....do....	1,615,219	196,835	167,090	29,079	666	1,418,384	1,396,774	9,093	11,190	1,327
Number of persons engaged, total.....	266,393	39,800	34,970	4,682	148	226,593	224,352	631	1,434	176
Production and development workers...	232,681	33,026	28,823	4,074	129	199,655	197,819	505	1,196	135
All other employees.....do....	23,614	4,436	3,946	482	8	19,178	18,994	69	88	27
Proprietors and firm members.....	10,098	2,338	2,201	126	11	7,760	7,539	57	150	14
Performing manual labor.....do....	7,550	2,065	1,985	72	8	5,485	5,324	43	107	11
Man-hours worked by production and development workers, total.....1,000..	374,035	48,266	42,061	6,038	167	325,769	322,410	901	2,202	256
Underground (mining and development).....do....	261,826	27,958	27,844	xxx	114	233,868	233,827	41	...	...
Strip-pit, total.....do....	34,119	6,625	1,297	5,328	xxx	27,494	24,999	545	1,950	...
Stripping overburden.....do....	18,875	2,494	158	2,336	xxx	16,381	14,899	259	1,223	...
Mining.....do....	15,244	4,131	1,139	2,992	xxx	11,113	10,100	286	727	...
Auger mining.....do....	1,398	xxx	xxx	xxx	xxx	1,398	1,193	...	205	...
Culm bank.....do....	862	862	372	490	xxx	xxx	xxx	xxx	xxx	xxx
Dredge.....do....	234	234	234	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Preparation plant and other surface (including tipples, mine shops and yards, and auxiliary units)....do....	75,596	12,587	12,314	220	53	63,009	62,391	315	47	256
Man-hours spent on development and exploration work (included above)....do....	1,531	441	441	...	xxx	1,090	1,089	1	xxx	xxx
Net coal produced per man-hour.....short tons..	1.12	0.61	0.70	xxx	xxx	1.20	1.20	4.71	xxx	xxx
Principal expenses designated below, total.....\$1,000..	1,870,024	348,749	318,733	29,357	659	1,521,275	1,506,355	3,914	9,860	1,146
Wages of production and development workers.....do....	878,795	113,932	98,678	14,809	445	764,863	757,175	2,177	4,923	588
Salaries of all other employees.....do....	131,439	21,997	19,392	2,571	34	109,442	108,474	411	377	180
Raw coal received for preparation or for resale without preparation.....do....	385,866	119,848	119,848	xxx	xxx	266,018	266,018	...	xxx	xxx
Supplies.....do....	289,878	29,027	20,224	8,651	152	260,851	257,233	627	2,650	341
Purchased fuel.....do....	21,043	3,932	2,038	1,868	26	17,111	15,712	239	1,132	28
Purchased electric energy.....do....	56,589	8,787	8,397	390	...	47,802	47,512	254	28	8
Contract work.....do....	106,414	51,226	50,156	1,068	2	55,188	54,231	206	750	1
Purchased machinery installed.....do....	130,910	9,270	5,667	3,529	74	121,640	118,481	607	2,509	43
Capital expenditures, total.....do....	129,305	10,494	7,884	2,537	73	118,811	115,761	639	2,299	112
Development and exploration of mineral property.....do....	5,039	1,438	1,438	xxx	xxx	3,601	3,586	15	xxx	xxx
Preparation plant construction and major alterations.....do....	24,468	1,281	1,281	xxx	xxx	23,187	23,186	1	xxx	xxx
Other construction.....do....	11,941	960	867	93	...	10,981	10,762	133	18	68
New machinery and equipment.....do....	70,973	4,767	3,367	1,371	29	66,206	63,845	479	1,849	33
Used plant and equipment.....do....	16,884	2,048	931	1,073	44	14,836	14,382	11	432	11
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....1,000..	7,838	1,506	1,072	433	1	6,332	6,093	75	155	9
Per production worker.....do....	34	46	37	106	11	32	31	148	130	63
Prime movers.....1,000..	3,359	703	319	383	1	2,656	2,469	45	136	6
Electric motors driven by purchased energy.....do....	4,479	803	753	50	...	3,676	3,624	30	19	3

See footnotes at end of table.

Table 2.—DETAILED STATISTICS FOR THE COAL MINING INDUSTRIES IN THE UNITED STATES, BY INDUSTRY: 1954—Continued

(For explanation of line captions, see INTRODUCTION)

Item	Coal mining industries, total	Anthracite mining industries				Bituminous coal and lignite mining industries				
		Total	Anthracite industry	Anthracite stripping contract services industry	Anthracite contract services, except stripping, industry	Total	Bituminous coal industry	Lignite industry	Bituminous coal and lignite mining contract services industry	
									Stripping and auger mining contract service sub-industry	Contract services, except stripping, sub-industry
Horsepower rating of electric motors driven by energy generated at the establishment.....1,000..	227	103	86	17	...	124	117	1	6	...
Energy used.....million kwh equivalent..	22,549	7,198	6,589	602	7	15,351	14,854	144	345	8
Coal produced and used at same establishment.....1,000 short tons..	1,356	595	595	xxx	xxx	761	754	7	xxx	xxx
Fuel purchased:										
Coal.....do....	220	143	141	2	...	77	75	...	2	...
Distillate fuel oil.....1,000 barrels..	2,353	311	95	212	4	2,042	1,886	24	131	1
Residual fuel oil.....do....	101	23	6	17	...	78	70	...	8	...
Gas (natural and manufactured).....million cu. ft..	508	1	1	...	...	507	507	...	...	...
Other fuels.....\$1,000..	7,643	1,631	944	685	2	6,012	5,534	97	357	24
Electric energy purchased.....million kwh..	4,359	731	708	23	...	3,628	3,601	25	2	...
Electric energy generated and used.....do....	241	109	94	15	...	132	132	...	...	...
Water intake, including mine water used.....million gallons..	56,622	27,214	27,206	8	...	29,408	29,325	16	67	...
Per production worker.....do....	0.24	0.82	0.94	(³)	...	0.15	0.15	0.03	0.06	...

¹See table 1, footnote 8.²See table 1, footnote 9.³Less than 5,000 gallons.

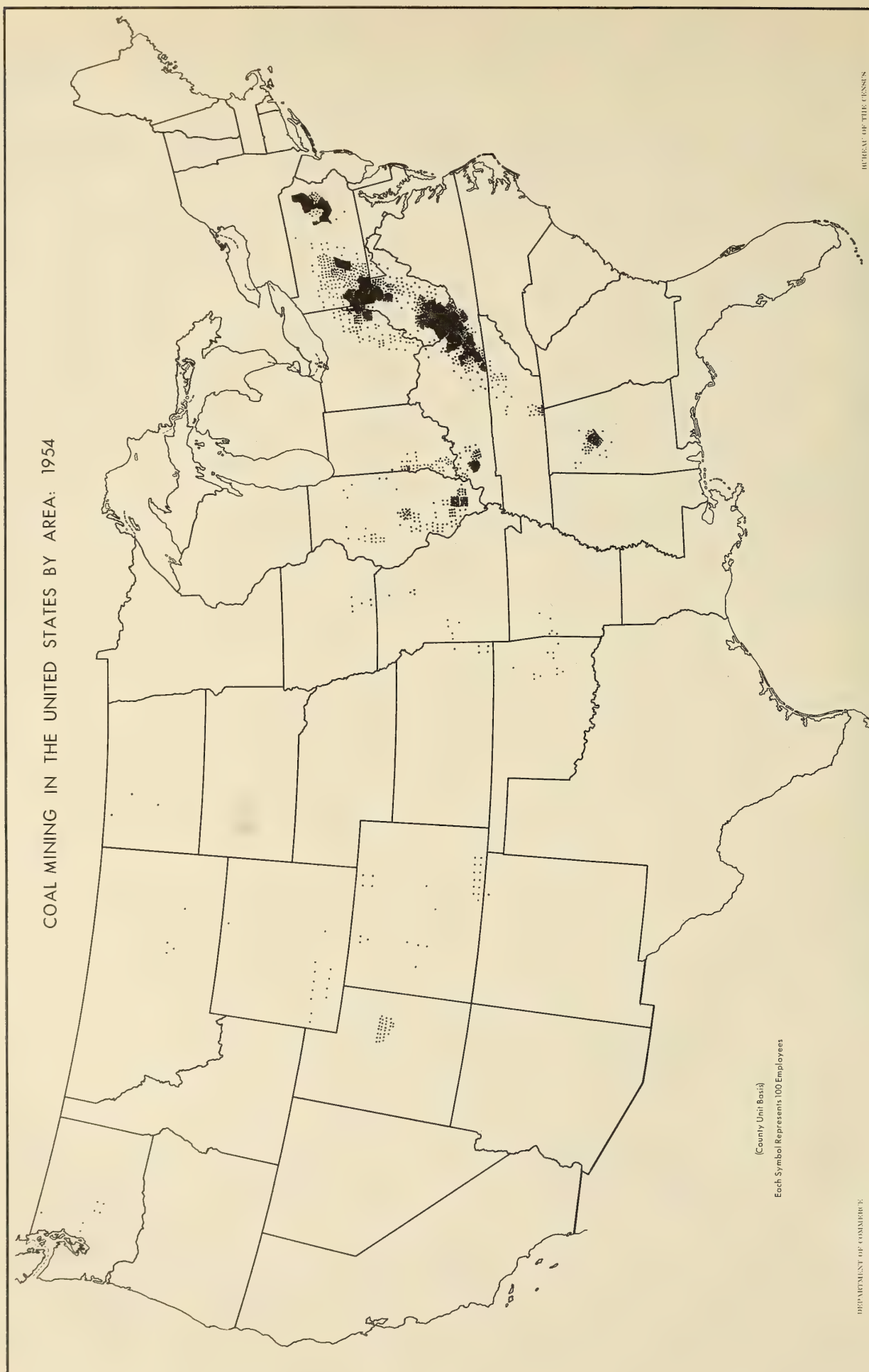


Table 3.— NUMBER OF COAL MINING ESTABLISHMENTS CLASSIFIED BY EMPLOYMENT SIZE, BY INDUSTRY AND BY GEOGRAPHIC DIVISIONS AND STATES: 1954

Geographic division, State, and Industry	Number of establishments, total	Number of establishments by employment size										
		No em- ployees	1-4 em- ployees	5-9 em- ployees	10-19 em- ployees	20-49 em- ployees	50-99 em- ployees	100-249 em- ployees	250-499 em- ployees	500-999 em- ployees	1,000-2,499 em- ployees	2,500 and over
United States, total.....	8,291	1,225	2,878	1,475	1,005	783	348	318	172	80	6	1
Anthracite mining, total.....	1,436	660	262	159	110	129	44	32	25	13	2	...
Anthracite.....	1,291	655	230	134	86	93	31	25	22	13	2	...
Anthracite stripping contract services.....	132	4	31	19	22	33	13	7	3	...	...	...
Anthracite contract services, except stripping.....	13	1	1	6	2	3	...	...	...	...	...	...
Bituminous coal and lignite mining, total.....	6,855	565	2,616	1,316	895	654	304	286	147	67	4	1
Bituminous coal.....	6,643	545	2,517	1,274	873	633	296	286	147	67	4	1
Lignite.....	60	10	30	9	2	5	4	...	...	...	...	...
Bituminous coal and lignite mining contract services...	152	10	69	33	20	16	4	...	...	...	...	...
Middle Atlantic (Pennsylvania), total...	3,043	785	1,020	403	307	272	87	75	55	34	4	1
Anthracite mining, total.....	1,436	660	262	159	110	129	44	32	25	13	2	...
Anthracite.....	1,291	655	230	134	86	93	31	25	22	13	2	...
Anthracite stripping contract services.....	132	4	31	19	22	33	13	7	3	...	...	...
Anthracite contract services, except stripping.....	13	1	1	6	2	3	...	...	...	...	...	...
Bituminous coal mining, total.....	1,607	125	758	244	197	143	43	43	30	21	2	1
Bituminous coal.....	1,545	122	733	231	185	137	40	43	30	21	2	1
Bituminous coal mining contract services.....	62	3	25	13	12	6	3	...	...	...	...	...
East North Central, total.....	833	90	229	143	128	105	60	51	17	10	...	...
Ohio, total.....	534	74	170	88	94	70	19	11	4	4	...	...
Bituminous coal.....	517	70	163	83	94	69	19	11	4	4	...	...
Bituminous coal mining contract services.....	17	4	7	5	...	1	...	...	...	...	...	...
Indiana, total.....	101	2	20	26	12	8	19	10	4	...	...	...
Bituminous coal.....	98	2	17	26	12	8	19	10	4	...	...	...
Bituminous coal mining contract services.....	3	...	3	...	...	...	...	...	...	...	...	...
Illinois (bituminous coal).....	198	14	39	29	22	27	22	30	9	6	...	...
West North Central, total.....	227	23	99	46	29	16	13	1	...	...	...	...
Iowa, total.....	74	4	28	20	18	2	2	...	...	...	...	...
Bituminous coal.....	73	4	28	19	18	2	2	...	...	...	...	...
Bituminous coal mining contract services.....	1	...	...	1	...	...	...	...	...	...	...	...
Missouri, total.....	72	9	35	10	4	9	5	...	...	...	...	...
Bituminous coal.....	69	9	32	10	4	9	5	...	...	...	...	...
Bituminous coal mining contract services.....	3	...	3	...	...	...	...	...	...	...	...	...
North Dakota, total.....	45	6	22	9	1	4	3	...	...	...	...	...
Lignite.....	44	6	22	8	1	4	3	...	...	...	...	...
Lignite mining contract services..	1	...	...	1	...	...	...	...	...	...	...	...
South Dakota (lignite).....	2	...	1	...	1	...	...	...	...	...	...	...
Kansas (bituminous coal).....	34	4	13	7	5	1	3	1	...	...	...	...
South Atlantic, total.....	2,029	67	747	443	276	204	93	108	65	25	1	...
Maryland (bituminous coal).....	79	11	41	16	8	3	...	...	...	...	...	...
Virginia (bituminous coal).....	607	23	237	143	108	56	22	7	8	3	...	...
West Virginia, total.....	1,338	33	464	284	160	145	71	101	57	22	1	...
Bituminous coal.....	1,294	31	442	276	154	139	71	101	57	22	1	...
Bituminous coal mining contract services.....	44	2	22	8	6	6	...	...	...	...	...	...
Georgia (bituminous coal).....	5	...	5	...	...	...	...	...	...	...	...	...
East South Central, total.....	1,779	217	630	380	226	150	67	72	27	9	1	...
Kentucky, total.....	1,150	167	353	244	144	107	53	57	18	6	1	...
Bituminous coal.....	1,145	167	352	241	144	106	53	57	18	6	1	...
Bituminous coal mining contract services.....	5	...	1	3	...	1	...	...	...	...	...	...
Tennessee, total.....	412	29	206	96	50	16	8	7	...	...	...	...
Bituminous coal.....	409	29	203	96	50	16	8	7	...	...	...	...
Bituminous coal mining contract services.....	3	...	3	...	...	...	...	...	...	...	...	...
Alabama, total.....	217	21	71	40	32	27	6	8	9	3	...	...
Bituminous coal.....	213	21	68	40	32	26	6	8	9	3	...	...
Bituminous coal mining contract services.....	4	...	3	...	...	1	...	...	...	...	...	...

Table 3.—NUMBER OF COAL MINING ESTABLISHMENTS CLASSIFIED BY EMPLOYMENT SIZE, BY INDUSTRY AND BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

Geographic division, State, and Industry	Number of establishments, total	Number of establishments by employment size										
		No em- ployees	1-4 em- ployees	5-9 em- ployees	10-19 em- ployees	20-49 em- ployees	50-99 em- ployees	100-249 em- ployees	250-499 em- ployees	500-999 em- ployees	1,000-2,499 em- ployees	2,500 and over
West South Central, total.....	81	14	25	15	8	8	8	2	1	...	...	...
Arkansas, total.....	36	11	10	6	2	2	5	...	...	...	...	...
Bituminous coal.....	33	10	9	5	2	2	5	...	...	...	...	...
Bituminous coal mining contract services.....	3	1	1	1	...	...	...	...	...	...	...	...
Oklahoma, total.....	43	3	15	9	6	5	2	2	1	...	...	...
Bituminous coal.....	42	3	15	9	5	5	2	2	1	...	...	...
Bituminous coal mining contract services.....	1	...	...	...	1	...	...	...	...	...	...	...
Texas (lignite).....	2	...	...	...	...	1	1	...	...	...	...	...
Mountain, total.....	281	28	122	41	29	27	18	8	6	2	...	...
Montana, total.....	39	6	20	7	2	1	2	1	...	...	...	...
Bituminous coal.....	27	2	14	6	2	1	1	1	...	...	...	...
Lignite.....	11	4	6	1	...	...	...	...	...	...	...	...
Bituminous coal and lignite mining contract services.....	1	...	...	...	...	...	1	...	...	...	...	...
Wyoming, total.....	34	5	10	2	5	6	4	...	2	...	...	...
Bituminous coal.....	32	5	10	2	4	5	4	...	2	...	...	...
Bituminous coal mining contract services.....	2	...	...	...	1	1	...	...	...	...	...	...
Colorado (bituminous coal).....	127	12	64	16	11	13	7	2	1	1	...	...
New Mexico (bituminous coal).....	24	...	14	6	1	3	...	...	...	...	...	...
Arizona (bituminous coal).....	3	...	1	1	1	...	...	...	...	...	...	...
Utah (bituminous coal).....	54	5	13	9	9	4	5	5	3	1	...	...
Pacific, total.....	18	1	6	4	2	1	2	1	1	...	...	...
Washington, total.....	16	...	5	4	2	1	2	1	1	...	...	...
Bituminous coal.....	14	...	4	3	2	1	2	1	1	...	...	...
Bituminous coal mining contract services.....	2	...	1	1	...	...	...	...	...	...	...	...
Oregon (bituminous coal).....	1	1	...	...	...	...	...	...	...	...	...	...
California (lignite).....	1	...	1	...	...	...	...	...	...	...	...	...

ANTHRACITE MINING

11B-1

Anthracite Mining

This report shows 1954 Census of Mineral Industries statistics for establishments classified in Major Group 11, Anthracite Mining. This major group includes establishments primarily engaged in producing anthracite (hard coal). The separate industries included in this group are:

Industry 1111, Anthracite: Establishments primarily engaged in producing anthracite or in developing anthracite mines. All establishments in the United States that are classified in this industry are in Pennsylvania. This industry includes underground mines, stripping and culm-bank operations by owners or operators, dredge operations, and coal preparation plants (breakers, washeries, and cleaning plants) whether or not operated in conjunction with the mines served.

Industry 1112, Anthracite stripping contract services: Establishments primarily engaged in contract strip mining of fresh or culm-bank anthracite.

Industry 1113, Anthracite contract services, except stripping: Establishments primarily engaged in sinking mine shafts, driving mine tunnels, drilling, and performing other related services at the mines or on mine property on contract for anthracite establishments. Establishments primarily engaged in performing hauling services or in contract construction are not included in the Mining Division, according to the Standard Industrial Classification, and were not covered in the 1954 minerals census.

The production of fuel briquets and packaged fuel is classified in Major Group 29, Products of petroleum and coal, and the production of manufactured gas from coal in Industry 4925, Manufactured gas production and distribution.

The combined value of shipments of the industries in Major Group 11 amounted to \$408 million in 1954. Of this total, the anthracite industry had shipments of \$366 million, including \$117 million for raw coal sold or transferred to other establishments in the industry for preparation, or net shipments of \$249 million. The anthracite stripping contract services industry, with receipts of \$42 million, and the anthracite contract services, except stripping industry, with receipts of nearly \$1 million, accounted for the remainder.

Net shipments of anthracite amounted to 29 million tons. An additional 0.6 million tons of anthracite were mined and used at the same establishment for power or heat.

Net production, net shipments, and transfers for preparation.--The figures for "net shipments" represent all prepared anthracite for shipment, sale, or employee use, including coal to stock, reported by breaker, washery, and dredge operators, plus any raw anthracite sold for use without preparation. The figures exclude coal used at the producing mine or preparation plant for power or heat. They also exclude the raw coal sold or transferred to other establishments for preparation, thus eliminating the duplication in "total" shipments which results from inclusion of the value of both the raw coal sold or transferred for preparation and the clean coal recovered therefrom. For individual counties, geographic fields, and trade regions, the net shipments figures include the prepared coal recovered from raw coal mined in other counties, fields, or regions.

"Net production," on the other hand, represents the net tonnage of anthracite mined, excluding breaker, washery, and other refuse, based on the location of the mining operation. For individual counties, geographic fields, and trade regions, the figures represent the net usable product from mines, culm banks, and dredges located within the boundaries of the designated area. At the mine level, the net production includes the tonnage of coal mined and prepared at the same establish-

ment, coal used at the establishment for power or heat, the prepared or sized coal equivalent of raw coal mined for preparation at other establishments, and any raw coal sold for use without preparation.

More than 99 percent of all anthracite mined is prepared prior to use. The coal beds in the anthracite region are, in general, steeply pitching, and much folded and faulted. Steep-pitch mining makes it necessary to bring to the surface all material which is mined, including large quantities of slate and other refuse. In 1954 about 45 million tons of raw coal were processed at breakers and washeries. Of this quantity, 21 million tons of raw coal were mined and prepared at the same establishment. Another 15 million tons were transferred for preparation at plants of the same company, and about 9 million tons were sold for preparation at plants of other companies. Since 1939, the year covered by the preceding minerals census, the number of breakers operated in conjunction with the mines served has decreased. At the same time, there has been an increase in the number of separately-operated preparation plants. Some of these are large central breakers, equipped to handle the coal from a number of large mines. Many of them, however, are smaller plants preparing coal purchased from mine operators in the immediate vicinity or from truckers who buy the coal at the mines and truck it to the breakers, selling it wherever they can find a purchaser. A considerable quantity of the coal transferred or sold for preparation is mined in counties other than the one in which the breaker or washery is located and the determination of the prepared-coal equivalent of the output for an individual mine was often dependent upon information reported by the plant or plants which prepared the coal. Where such information was not reported, estimates were made, based upon the average recovery ratio at the plant or upon data reported for similar operations in the same area, taking into consideration the quantity of raw coal sold and the related employment and other economic data reported by the mine operator.

Coverage of small establishments.--The 1954 minerals census excludes establishments with value of shipments or expenditures for production, development, and maintenance work less than \$500. The Census, however, attempted to obtain reports from all operators of mine properties, whether or not they had employees, for which shipments or expenditures exceeded this amount. An analysis of the Census coverage indicated that the methods used in developing a mailing list and in collecting Census reports did not provide complete coverage of small mines with no employees, particularly in Northumberland and Schuylkill counties. Based upon receipts of coal for preparation reported by breakers and washeries, estimates were prepared to account for these small establishments at which all of the work was performed by proprietors or partners.

Contract work.--Stripping of fresh-mined anthracite and loading of culm-bank material by contractors represent a significant component of anthracite mining. Anthracite operators reported a total of 8 million tons of strip-pit coal produced, of which nearly 7 million tons were mined for them by contractors. While separate figures were not obtained for the tonnage of culm-bank coal mined by contractors, the high ratio of contract payments to wages at culm-bank operations indicates that a major portion of the almost 4 million tons of coal recovered from culm banks was loaded by contractors.

Establishments classified in the anthracite stripping contract services industry reported receipts of \$42 million for services performed at strip pits and culm banks. A total of 4,682 persons were engaged in these services, accounting for about 12 percent of the total number of persons engaged in the anthracite mining industries.

For tabulation and presentation of the related economic statistics in most of the tables in this report, contractors were classified according to the principal county in which work was performed and the principal kind of work done. A number of contracting companies performed work in more than one county. The extent of this overlap between counties is shown in the statistics presented in Table 5B.

The figures in this report for the two contract services industries--anthracite stripping contractors and anthracite contractors other than stripping--cover, except for hauling, all activities which represent an integral part of anthracite mining operations. Receipts by these contractors represent 84 percent of the total payments for contract services by the anthracite mining industries and a small amount of additional contract work was done by operators of anthracite properties, presumably primarily for other anthracite operators. These services probably represent nearly complete coverage of the types of contract service operations classified in the mineral industries.

Secondary production.--The general statistics for the anthracite industry include the production of secondary products and the performance of services for others, since these general statistics are reported for each establishment as a whole. However, secondary products and services in this industry amounted to less than one percent of the total value of shipments for the industry. All anthracite was produced in the anthracite industry.

Comparison with Bureau of Mines Statistics.--The report forms used by the Bureau of the Census for the anthracite and the anthracite stripping contract services industries, exclusive of the special form used for the anthracite contract services, except stripping, industry, also provided information required by the Bureau of Mines for its annual commodity, employment, and mechanical equipment statistics on Pennsylvania anthracite. Some differences occur in the similar statistics compiled by the two agencies, arising principally from differences in methods followed and objectives sought in compiling and presenting the statistics. The reasons for such differences, to the extent that they pertain to statistics for the anthracite and anthracite stripping contract services industries, are summarized below:

1. The Bureau of Mines statistics on both production and shipments are based on data reported by breakers, washeries, and dredges, the quantity and value of the prepared coal at such plants being distributed among the counties from which raw coal was received. The Census statistics are on an establishment basis, taking into account the location and type of product of the establishment and making a distinction between "net production" and "net shipments." The statistics presented by the Bureau of Mines therefore represent the quantity and value of prepared coal recovered from raw coal mined in a given county, whether or not prepared in that county. They are comparable by county only with the Census statistics for "net production" and are not comparable with the Census county figures for "net shipments."

2. The usual average employment figures in this report represent a 12-month average of paid employees as of the 15th of each month, including periods when the establishment was inactive and only watchmen, maintenance men, and repairmen were on duty. The Bureau of Mines statistics on employment represent the average number of men working daily during the time the mine or preparation plant was active for production, computed by dividing the number of active production days for the mine or plant into the number of man-shifts reported by the operator. Census statistics showing the number of production and development workers on active days are presented in Table 3B of this report, and only these figures are comparable with the Bureau of Mines employment figures. Employees of stripping contractors are included in the statistics of both agencies. The Bureau of Mines also includes the estimated working time of owners, operators, or partners performing work at the mines or plants, whereas the Census statistics on man-shifts and man-hours include data for paid production and development workers only. Census data indicated that 2,065 owners or operators performed manual labor at anthracite mining operations in 1954, amounting to 5 percent of the total number of persons engaged at such operations.

3. Census figures on net production slightly exceed the Bureau of Mines figures, due in part to the inclusion of some late reports and revisions which were processed by the Census Bureau after the Bureau of Mines had closed its tabulations.

Table 1.—COMPARATIVE STATISTICS FOR THE ANTHRACITE MINING INDUSTRIES IN THE UNITED STATES:

(For explanation of line captions and for statement on the minimum

Item	1954				1939			
	Anthracite mining industries, total	Anthracite industry	Anthracite stripping contract services industry	Anthracite contract services, except stripping, industry	Anthracite mining industries, total	Anthracite industry	Anthracite stripping contract services industry	Anthracite contract services, except stripping, industry
1 Number of operating companies.....	1,296	1,160	131	13	359	289	58	13
2 Number of establishments.....	1,436	1,291	132	13	(NA)	(NA)	(NA)	(NA)
3 Number of mines, culm banks, and dredges.....	1,263	1,263	xxx	xxx	518	518	xxx	xxx
4 Number of preparation plants and dredges.....	222	222	xxx	xxx	197	197	xxx	xxx
5 Net production of anthracite, total ⁶.....1,000 short tons..	29,255	29,255	(7)	xxx	51,865	51,865	(7)	xxx
6 Fresh-mined coal from:								
7 Undergound operations.....do....	16,860	16,860	xxx	xxx	50,987	50,987	xxx	xxx
8 Strip-pit operations.....do....	8,043	8,043	(7)	xxx				
9 Culm bank coal.....do....	3,637	3,637	(7)	xxx				
10 Dredge coal.....do....	715	715	xxx	xxx	878	878	xxx	xxx
11 Net shipments of anthracite, total ⁶.....do....	28,695	28,695	xxx	xxx	(NA)	(NA)	xxx	xxx
12 Raw coal sold for use without preparation.....do....	124	124	xxx	xxx				
13 Breaker and washery product.....do....	27,859	27,859	xxx	xxx				
14 Dredge product.....do....	712	712	xxx	xxx				
15 Value of shipments, total ⁶.....\$1,000..	408,431	365,536	42,048	847	201,126	189,648	10,936	542
16 Raw coal sold or transferred for preparation.....do....	117,023	117,023	xxx	xxx				
17 Net shipments, total ⁶.....do....	291,408	248,513	42,048	847				
18 Coal net shipments, total.....do....	246,276	246,276	xxx	xxx				
19 Raw coal sold for use without preparation.....do....	156	156	xxx	xxx	443	443	xxx	xxx
20 Breaker and washery product.....do....	244,363	244,363	xxx	xxx	188,118	188,118	xxx	xxx
21 Dredge product.....do....	1,757	1,757	xxx	xxx	871	871	xxx	xxx
22 Other products and services.....do....	45,132	2,237	42,048	847	11,694	216	10,936	542
23 Value added in mining.....do....	196,835	167,090	29,079	666	154,023	146,418	7,126	479
24 Number of persons engaged, total.....do....	39,800	34,970	4,682	148	88,893	85,945	2,702	246
25 Production and development workers.....do....	33,026	28,823	4,074	129	83,112	80,429	2,461	222
26 All other employees.....do....	4,436	3,946	482	8	5,480	5,284	185	11
27 Proprietors and firm members.....do....	2,338	2,201	126	11	301	232	56	13
28 Performing manual labor.....do....	2,065	1,985	72	8	161	139	21	1
29 Man-hours worked by production and development workers, total.....1,000..	48,266	42,061	6,038	167	124,462	120,085	4,038	339
30 Undergound (mining and development).....do....	27,958	27,844	xxx	114	124,462	94,560	xxx	(NA)
31 Strip-pit (stripping overburden and mining coal).....do....	6,625	1,297	5,328	...	4,661	13,220	13,441	
32 Culm bank.....do....	862	372	490	...	879	13,207	13,672	
33 Dredge.....do....	234	234	xxx	...	532	532	xxx	
34 Preparation plant.....do....	5,987	5,987	xxx	...	11,543	11,543	xxx	
35 All other surface (including shops and yards).....do....	6,600	6,327	220	53	11,948	11,948	(13)	
36 Net anthracite produced per man-hour.....short tons..	0.61	0.70	xxx	xxx	0.42	0.43	xxx	xxx
37 Principal expenses designated below, total.....\$1,000..	348,749	318,733	29,357	659	167,153	159,090	7,725	338
38 Wages of production and development workers.....do....	113,932	98,678	14,809	445	107,798	104,378	3,166	254
39 Salaries of all other employees.....do....	21,997	19,392	2,571	34	12,252	11,482	749	21
40 Raw anthracite received for preparation.....do....	119,848	119,848	xxx	xxx	(NA)	(NA)	xxx	xxx
41 Supplies.....do....	29,027	20,224	8,651	152	25,489	22,496	2,956	37
42 Fuel ¹⁴.....do....	3,932	2,038	1,868	26	3,920	3,275	619	26
43 Purchased electric energy.....do....	8,787	8,397	390	...	6,524	6,430	94	...
44 Contract work.....do....	51,226	50,156	1,068	2	11,170	11,029	141	(NA)
45 Purchased machinery installed.....do....	9,270	5,667	3,529	74	(NA)	(NA)	(NA)	(NA)
46 Capital expenditures, total.....do....	10,494	7,884	2,537	73				
47 Development and exploration of mineral property.....do....	1,438	1,438	xxx	xxx				
48 Preparation plant construction and major alterations.....do....	1,281	1,281	xxx	xxx	151,771	1,771	xxx	xxx
49 Other construction.....do....	960	867	93	...	152,882	1,974	899	9
50 New machinery and equipment.....do....	4,767	3,367	1,371	29				
51 Used plant and equipment.....do....	2,048	931	1,073	44	322	221	101	

See footnotes at end of table.

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size of establishments included for each year, see INTRODUCTION)

1935 ¹			Anthracite industry										
Anthracite industry and Anthracite stripping contract services industry, total	Anthracite industry	Anthracite stripping contract services industry	1929	1919 ¹	1909 ²	1902 ³	1889	1880	1870	1860	1850	1840	
(NA)	(NA)	(NA)	(NA)	(NA)	198	119	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	1
(NA)	350	(NA)	198	254	365	(NA)	(NA)	275	229	176			2
(NA)	(NA)	xxx	4303	534	433	(NA)	411	297	(NA)	(NA)			3
(NA)	(NA)	xxx	(NA)	405	424	369	343	275	(NA)	(NA)			4
52,159	52,159	(7)	74,546	88,171	80,987	41,374	45,545	28,641	17,528	8,115	4,138	963	5
43,658	43,658	xxx (7)	73,817	86,709	75,926	41,374	45,545	28,641	17,528	8,115	4,138	963	6
5,187	5,187												7
2,724	2,724	(7)		766	4,942	}	...	...	...	...	...	...	8
590	590	xxx	729	696	119								9
(NA)	(NA)	xxx	868,731	(NA)	72,373	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	10
		xxx	868,731		72,256								11
		xxx			117								12
		xxx											13
(NA)	(NA)	(NA)	(NA)	364,084	149,028	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	14
(NA)	210,351	(NA)	384,854	363,651	10149,028	76,174	65,722	42,283	38,437	11,870	5,269	5,269	15
210,130	210,130	xxx	384,754	363,512	149,028	76,174	65,722	42,283	38,437	11,870	5,269		16
...	...	xxx	383,927	362,619	148,937	76,174	65,722	42,283	38,437	11,870	5,269	(NA)	17
209,613	209,613	xxx											18
517	517	xxx	827	893	91	(NA)	...	(NA)	(NA)	(NA)	(NA)	(NA)	19
(NA)	221	(NA)	100	139	...								20
(NA)	174,665	(NA)	320,756	289,049	120,601	63,027	52,567	35,541	34,841	10,232	(NA)	(NA)	22
99,308	96,053	3,255	151,209	154,882	173,967	1172,705	124,203	70,975	53,021	25,126	(NA)		23
92,438	89,385	3,053	142,801	147,372	169,471	69,691	122,375	69,688	53,021	25,126	(NA)	2,977	24
6,870	6,668	202	8,370	7,351	4,308	3,014	1,828	1,287	}	}	(NA)	2,977	25
			38	159	188								
				34	72								27
													28
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	29
													30
													31
													32
													33
													34
													35
173,295	166,267	7,028	315,347	298,319	125,353	54,770	52,433	29,493	26,579	7,141	(NA)	(NA)	36
120,102	116,364	3,738	229,967	210,289	92,343	38,716	37,768	}	22,751	22,983	5,503		37
14,659	14,217	442	21,282	12,995	4,583	2,907	1,510						
(NA)	(NA)	xxx	(NA)	433	...	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	39
27,140	24,955	2,185	43,367	59,738	23,532	}	12,741	10,822	6,742	3,596	1,638		40
4,197	3,642	555	7,420	11,406	3,192								
7,197	7,089	108	6,509	1,900		}	406	2,333	(NA)	(NA)	(NA)		42
			6,802	1,558	1,703								
			5,580	(NA)	}	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)		44
			(NA)	(NA)									
(NA)	(NA)	(NA)	7,902	6,190	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	46
			(NA)	(NA)									47
													48
													49
													50

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 1.—COMPARATIVE STATISTICS FOR THE ANTHRACITE MINING INDUSTRIES IN THE UNITED STATES:

(For explanation of line captions and for statement on the minimum

Item	1954				1939			
	Anthracite mining industries, total	Anthracite industry	Anthracite stripping contract services industry	Anthracite contract services, except stripping, industry	Anthracite mining industries, total	Anthracite industry	Anthracite stripping contract services industry	Anthracite contract services, except stripping, industry
1 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	1,505,742	1,071,655	432,662	1,425	1,091,479	1,018,561	70,553	2,365
2 Per production worker.....	46	37	106	11	13	13	29	11
3 Prime movers.....	702,298	319,041	382,517	740	1,506,881	445,361	61,520	
4 Electric motors driven by purchased energy....	803,444	752,614	50,145	685	1,582,233	573,200	9,033	
5 Horsepower rating of electric motors driven by energy generated at the establishment.....	102,958	85,772	17,186	...	368,372	368,298	74	(NA)
6 Energy used.....million kwh equivalent..	7,198	6,589	602	7	19,716	19,455	261	
7 Anthracite produced and used at same establishment.....1,000 short tons..	595	595	xxx	xxx	182,534	182,533	xxx	xxx
8 Fuel purchased:								
9 Anthracite.....do....	18143	18141	2	...			1	
10 Fuel oil.....1,000 barrels..	334	101	229	4	82	7	75	(NA)
Gas (natural and manufactured).....million cu. ft..	1	1	...	...	...	...	...
11 Electric energy purchased.....million kwh..	731	708	23	...	591	582	9	
12 Electric energy generated and used.....do....	109	94	15	...	374	374	...	

NA Not available.

¹Represents producing operations only.²Includes data for 3 operating companies with 3 mines and 4 washeries, producing 106,000 tons of coal valued at \$70,000, for which no other data were reported.³During 1902 anthracite mining operations were almost entirely suspended for more than 5 months, due to a strike of mine workers.⁴Represents number of "collieries, washeries, and dredges."⁵Represents breakers only.⁶"Net production" represents the clean-coal equivalent of all coal mined, based on the location of the mine, including coal produced and used at the same establishment for power or heat. For 1954, coal "net shipments" represents all breaker, washery, and dredge product shipped and all raw coal sold for use without preparation, but excludes raw coal sold or transferred for preparation and coal produced and used at the same establishment for power or heat. Figures for value of net shipments for years prior to 1954 represent net production.

The "net shipments" figures eliminate the duplication in "total" shipments which results from inclusion of the value of both the raw coal sold or transferred for preparation and the clean coal recovered therefrom.

⁷Coal mined by contractors is included in the production shown for the anthracite industry. For 1954, see table 5C.⁸Represents sales.

1954, 1939, 1935, 1929, 1919, 1909, 1902, 1889, 1880, 1870, 1860, 1850, AND 1840

size of establishments included for each year, see INTRODUCTION)

1935 ¹			Anthracite industry									
Anthracite industry and Anthracite stripping contract services industry, total	Anthracite industry	Anthracite stripping contract services industry	1929	1919 ¹	1909 ²	1902 ³	1889	1880	1870	1860	1850	1840
<div> <div> <div>(NA)</div> <div>2,746</div> <div>(NA)</div> </div> </div>	<div> <div>(NA)</div> <div>2,746</div> <div>(NA)</div> </div>	<div> <div>(NA)</div> <div>xxx</div> <div>(NA)</div> </div>	1,041,465 ⁷	899,783 ⁶	678,073 ⁴	434,220 ⁶	(NA)	105,777 ¹	49,140 ¹			
			618,042	782,090	676,663	434,220	17154,077	17105,777	49,140			
			423,423	117,693	1,410	...	6,906	...	...	
			464,164	185,723	46,088	5,755		...	...	
			42,694	(NA)	(NA)	(NA)	(NA)			(NA)	(NA)	(NA)
			185,679 ¹	189,578 ¹	8,614	4,994	3,941	(NA)	(NA)			
			...	...	(NA)	(NA)	(NA)					
			470	(NA)								
			478	(NA)								

⁹Represents "cost of coal purchased as a material or for resale." It is not clear whether, as in 1954, this figure includes the estimated value of coal transferred by a company from its mines to a separately operated preparation plant and of coal received for custom preparation.

¹⁰Represents value of products. The value of anthracite marketed was \$145,950,000.

¹¹Figures for average employment were reduced to a 300-day basis for establishments which operated for a shorter period.

¹²The combined figure for the Anthracite contract services, except stripping, industry is included in the major group total under "Underground."

¹³Data for the Anthracite industry in Northumberland county are included with those for the Anthracite stripping contract services industry. For stripping contractors data for all other surface operations are included with those for man-hours at strip pit and culm bank.

¹⁴For 1954 and 1880 excludes, but for 1939 and most other years includes, the value of coal produced and used at the same establishment for power or heat.

¹⁵All combined figures for contract service operations have been included in the major group total under "new machinery and equipment."

¹⁶Excludes data for the Anthracite contract services, except stripping, industry.

¹⁷Statistics for "prime movers" represent horsepower of steam boilers.

¹⁸Includes bituminous coal as follows: for 1954, approximately 1,000 tons; for 1939, approximately 5,000 tons; for 1929, approximately 29,000 tons; and for 1919, approximately 4,000 tons.

Table 2A.—COMPARATIVE STATISTICS FOR THE ANTHRACITE MINING INDUSTRIES IN

(For explanation of column captions, and statement in the

Trade region, year, and industry		Number of mines, culm banks, and dredges	Net shipments of anthracite ¹ (1,000 short tons)	Value of net shipments ¹ (\$1,000)
1	1954, total.....	1,237	28,695	291,408
2	Anthracite industry.....	1,237	28,695	248,513
3	Anthracite stripping contract services industry.....	xxx	(²)	42,048
4	Anthracite contract services, except stripping, industry.....	xxx	xxx	847
5	1939, total ³	518	51,865	201,026
6	Anthracite industry.....	518	51,865	189,648
7	Anthracite stripping contract services industry.....	xxx	(²)	10,936
8	Anthracite contract services, except stripping, industry ⁴	xxx	xxx	542
9	1919 (Anthracite industry).....	534	88,171	⁶ 363,651
TRADE REGION				
Lehigh:				
10	1954, total.....	62	4,117	45,823
11	Anthracite industry.....	62	4,117	36,338
12	Anthracite stripping contract services industry.....	xxx	(²)	9,183
13	Anthracite contract services, except stripping, industry.....	xxx	xxx	302
14	1939, total.....	76	8,715	(NA)
15	Anthracite industry.....	76	8,715	32,344
16	Anthracite stripping contract services industry.....	xxx	(²)	(NA)
17	1919 (Anthracite industry).....	67	13,505	54,377
Schuylkill:				
18	1954, total.....	923	12,991	122,923
19	Anthracite industry.....	923	12,991	98,402
20	Anthracite stripping contract services industry.....	xxx	(²)	24,053
21	Anthracite contract services, except stripping, industry.....	xxx	xxx	468
22	1939, total.....	176	14,891	(NA)
23	Anthracite industry.....	176	14,891	50,941
24	Anthracite stripping contract services industry.....	xxx	(²)	(NA)
25	1919 (Anthracite industry).....	186	26,153	100,969
Wyoming:				
26	1954, total.....	278	11,587	122,662
27	Anthracite industry.....	278	11,587	113,773
28	Anthracite stripping contract services industry.....	xxx	(²)	8,812
29	Anthracite contract services, except stripping, industry.....	xxx	xxx	77
30	1939, total.....	255	28,259	(NA)
31	Anthracite industry.....	255	28,259	106,363
32	Anthracite stripping contract services industry.....	xxx	(²)	(NA)
33	1919 (Anthracite industry).....	281	48,513	208,738

¹See table 1, footnote 6. The quantity of anthracite for 1939 and 1919 represents "net production." The total value of shipments, including raw coal sold or transferred for preparation in the anthracite industry in 1954 was \$46,46,000 for the Lehigh region, \$155,231,000 for the Schuylkill region, and \$163,859,000 for the Wyoming region.

²See table 1, footnote 7.

³Total includes data for 11 nonproducing mines which cannot be distributed by Trade region.

⁴Includes anthracite produced and used at the same establishment for power or heat.

THE UNITED STATES (PENNSYLVANIA), BY TRADE REGIONS: 1954, 1939, AND 1919

minimum size of establishments included for each year, see INTRODUCTION)

Number of employees		Designated principal expenses (\$1,000)						Aggregate horsepower rating of power equipment	
Production and development workers	All other employees	Wages of production and development workers	Salaries of all other employees	Supplies	Fuel	Purchased electric energy	Contract work		
33,026	4,436	113,932	21,997	29,027	3,932	8,787	51,226	1,505,742	1
28,823	3,946	98,678	19,392	20,224	2,038	8,397	50,156	1,071,655	2
4,074	482	14,809	2,571	8,651	1,868	390	1,068	432,662	3
129	8	445	34	152	26	...	2	1,425	4
83,112	5,480	107,797	12,252	25,489	⁴ 3,920	6,524	11,170	1,091,480	5
80,429	5,284	104,378	11,482	22,496	⁴ 3,275	6,430	11,029	1,018,561	6
2,461	185	3,165	749	2,956	619	94	141	70,553	7
222	11	254	21	37	26	...	...	2,366	8
147,372	7,351	210,289	12,995	60,172	⁴ 11,406	1,900	1,558	899,783	9
4,472	355	16,168	1,819	4,234	433	1,468	9,777	317,849	10
3,569	264	12,511	1,340	2,500	79	1,362	9,437	181,794	11
868	90	3,528	475	1,676	329	106	340	135,120	12
35	1	129	4	58	25	...	...	935	13
14,964	882	19,786	2,263	4,307	⁴ 832	1,280	⁷ 128	197,239	14
14,203	823	18,769	1,908	3,646	⁴ 631	1,246	⁷ 128	177,040	15
761	59	1,017	355	661	202	34	...	20,199	16
19,472	(NA)	27,964	(NA)	8,158	⁴ 2,159	681	615	112,923	17
12,327	1,164	40,746	6,159	13,775	2,345	3,761	24,613	570,677	18
9,634	844	31,664	4,464	8,745	1,218	3,538	23,982	321,467	19
2,604	315	8,784	1,684	4,955	1,126	223	629	248,900	20
89	5	298	11	75	1	...	2	310	21
19,071	924	26,945	1,971	7,478	⁴ 848	2,921	⁷ 267	320,609	22
17,855	847	25,386	1,756	5,975	⁴ 563	2,874	⁷ 126	287,536	23
1,216	77	1,559	215	1,503	285	47	141	33,073	24
43,941	(NA)	63,560	(NA)	17,057	⁴ 2,823	603	405	377,759	25
16,227	2,917	57,018	14,019	11,018	1,154	3,558	16,836	617,216	26
15,620	2,838	54,503	13,588	8,979	741	3,497	16,737	568,394	27
602	77	2,497	412	2,020	413	61	99	48,642	28
5	2	18	19	19	...	...	...	180	29
48,787	3,467	60,715	7,454	13,626	⁴ 2,207	2,188	⁷ 136	519,368	30
48,303	3,418	60,126	7,275	12,834	⁴ 2,075	2,175	⁷ 136	502,087	31
484	49	589	179	792	132	13	...	17,281	32
83,959	(NA)	118,765	(NA)	34,957	⁴ 6,424	616	538	409,101	33

⁵Detail by trade region is not available.⁶The sum of \$433,000, cost of coal purchased for resale, is excluded from the industry total but included in the trade region figures.⁷Excludes payments to stripping contractors.

Table 2B.—COMPARATIVE STATISTICS FOR THE ANTHRACITE INDUSTRY IN THE UNITED STATES FOR SELECTED COUNTIES: 1954, 1939, AND 1929

County and year	Number of mines, culm banks, and dredges	Net shipments of anthracite ¹ (1,000 short tons)	Net shipments ¹ (\$1,000)	Number of employees		Designated principal expenses (\$1,000)						Aggregate horsepower rating of power equipment
				Production workers	All other employees	Wages of production and development workers	Salaries of all other employees	Supplies	Fuel	Purchased electric energy	Contract work	
Pennsylvania:												
1954.....	1,263	28,695	248,513	28,823	3,946	98,678	19,392	20,224	2,038	8,397	50,156	1,071,655
1939.....	518	51,865	189,648	80,429	5,284	104,378	11,482	22,496	² 3,275	6,429	11,029	1,018,561
1929.....	³ 303	74,546	384,854	142,801	8,370	229,967	21,282	43,367	² 7,420	6,509	6,802	1,041,465
Carbon:												
1954.....	17	1,251	9,863	834	69	3,436	349	⁴ 1,530	19	421	2,342	83,428
1939 ⁵	12	1,879	6,635	2,986	180	3,964	488	864	² 142	321	⁶ 11	46,520
Columbia:												
1954.....	18	381	3,742	564	37	2,008	191	⁴ 3,402	28	217	886	19,055
1939 ⁷	13	433	1,626	484	37	693	77	168	² 23	83	...	5,803
Lackawanna:												
1954.....	153	3,348	34,395	4,421	897	13,815	4,257	2,326	537	1,054	3,423	160,364
1939 ⁸	146	9,082	33,602	15,145	1,723	18,450	3,737	4,446	² 882	771	⁶ 49	166,035
1929.....	65	17,331	93,867	34,765	(NA)	58,181	(NA)	9,510	² 1,453	1,083	(NA)	195,155
Luzerne:												
1954.....	160	10,235	98,750	12,763	2,056	46,725	9,906	8,136	250	3,001	18,643	456,483
1939 ⁷	144	23,204	88,402	39,681	2,156	50,416	4,561	10,024	² 1,481	1,888	⁶ 173	405,740
1929.....	102	29,990	162,745	58,558	(NA)	91,407	(NA)	16,213	² 2,705	1,976	(NA)	388,614
Northumberland:												
1954.....	470	3,892	30,292	2,998	218	9,118	1,613	2,686	330	887	5,077	92,723
1939 ⁹	44	5,293	19,976	6,140	211	9,042	411	2,553	² 77	1,088	⁶ 57	86,554
1929.....	28	6,028	27,708	10,220	(NA)	17,190	(NA)	3,722	² 640	722	(NA)	83,279
Schuylkill:												
1954.....	407	8,795	69,029	7,009	651	22,841	3,015	6,008	767	2,788	19,778	247,746
1939 ⁹	126	11,062	38,446	15,588	739	21,377	1,600	4,312	² 621	2,093	⁶ 101	249,079
1929.....	67	16,937	81,704	30,886	(NA)	50,855	(NA)	10,910	² 2,168	2,385	(NA)	292,230
Sullivan:												
1954.....	3	20	145	30	4	82	13	15	3	4	...	500
1939.....	6	34	89	84	6	62	7	10	² 2	3	...	481

NA Not available.

¹See table 1, footnote 6.²See table 2A, footnote 4.³See table 1, footnote 4.⁴Includes cost of raw anthracite received for preparation.⁵All figures, except "number of mines, culm banks, and dredges," exclude data for one dredging operation. The combined value of shipments of 3 dredging operations in Carbon, Lehigh, and Northampton counties was \$54,000.⁶See table 2A, footnote 7.⁷All figures, except "number of mines, culm banks, and dredges," exclude data for dredging operations. The combined value of shipments of 6 dredging operations in Columbia and Luzerne counties was \$54,000.⁸All figures, except "number of mines, culm banks, and dredges," include data for 3 mines in Susquehanna county and 1 mine in Wayne county.⁹All figures, except "number of mines, culm banks, and dredges," exclude data for dredging operations. This combined value of shipments of 18 dredging operations in Northumberland, Schuylkill, and Berks counties was \$495,000.

Table 3A.—DETAILED STATISTICS FOR THE ANTHRACITE MINING INDUSTRIES IN THE UNITED STATES (PENNSYLVANIA), BY GEOGRAPHIC FIELD AND TRADE REGION: 1954

(For explanation of line captions, see INTRODUCTION)

Item	All fields and regions				Geographic field ¹	
	Anthracite mining industries, total	Anthracite industry	Anthracite stripping contract services industry	Anthracite contract services, except stripping, industry	Northern	
					Anthracite mining industries, total	Anthracite industry
Number of operating companies.....	1,296	1,160	131	13	242	201
Number of establishments.....	1,436	1,291	132	13	303	259
Number of mines, culm banks, and dredges.....	1,263	1,263	xxx	xxx	278	278
Number of breakers and culm-bank washeries.....	196	196	xxx	xxx	45	45
Net production of anthracite, total ³.....1,000 short tons..	29,255	29,255	xxx	xxx	12,244	12,244
Fresh-mined coal from:						
Underground operations.....do....	16,860	16,860	xxx	xxx	9,565	9,565
Strip-pit operations.....do....	8,043	8,043	(⁴)	xxx	2,167	2,167
Culm-bank coal.....do....	3,637	3,637	(⁴)	xxx	512	512
Dredge coal.....do....	715	715	xxx	xxx		
Net shipments of anthracite, total ³	28,695	28,695	xxx	xxx	11,587	11,587
Raw coal sold for use without preparation.....do....	124	124	xxx	xxx	...	...
Breaker and washery product.....do....	27,859	27,859	xxx	xxx	11,587	11,587
Dredge product.....do....	712	712	xxx	xxx		
Value of shipments, total ³.....\$1,000..	408,431	365,536	42,048	847	172,748	163,859
Raw coal sold or transferred for preparation, total.....do....	117,023	117,023	xxx	xxx	50,086	50,086
At plants of same company.....do....	73,825	73,825	xxx	xxx	32,019	32,019
At plants of other companies.....do....	43,198	43,198	xxx	xxx	18,067	18,067
Net shipments, total ³.....do....	291,408	248,513	42,048	847	122,662	113,773
Coal net shipments, total ³.....do....	246,276	246,276	xxx	xxx	111,600	111,600
Raw coal sold for use without preparation.....do....	156	156	xxx	xxx	...	...
Breaker and washery product.....do....	244,363	244,363	xxx	xxx	111,600	111,600
Dredge product.....do....	1,757	1,757	xxx	xxx		
Other products and services.....do....	45,132	2,237	42,048	847	11,062	2,173
Value added in mining.....do....	196,835	167,090	29,079	666	90,169	83,948
Number of persons engaged, total.....	39,800	34,970	4,682	148	19,454	18,719
Production and development workers.....	33,026	28,823	4,074	129	16,227	15,620
All other employees.....	4,436	3,946	482	8	2,917	2,838
Proprietors and firm members.....	2,338	2,201	126	11	310	261
Performing manual labor.....	2,065	1,985	72	8	222	192
Man-hours worked by production and development workers.....1,000..	48,266	42,061	6,038	167	23,965	22,882
Net anthracite produced per man-hour.....short tons..	0.61	0.70	xxx	xxx	0.51	0.54
Principal expenses designated below, total.....\$1,000..	348,749	318,733	29,357	659	154,050	148,492
Wages of production and development workers.....do....	113,932	98,678	14,809	445	57,018	54,503
Salaries of all other employees.....do....	21,997	19,392	2,571	34	14,019	13,588
Raw anthracite received for preparation.....do....	119,848	119,848	xxx	xxx	50,447	50,447
Supplies.....do....	29,027	20,224	8,651	152	11,018	8,979
Purchased fuel.....do....	3,932	2,038	1,868	26	1,154	741
Purchased electric energy.....do....	8,787	8,397	390	...	3,558	3,497
Contract work.....do....	51,226	50,156	1,068	2	16,836	16,737
Purchased machinery installed.....do....	9,270	5,667	3,529	74	3,349	2,762
Capital expenditures, total.....	10,494	7,884	2,537	73	3,783	3,252
New capital expenditures.....do....	8,446	6,953	1,464	29	3,472	3,144
Used plant and equipment.....do....	2,048	931	1,073	44	311	108
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	1,505,742	1,071,655	432,662	1,425	617,216	568,394
Per production worker.....	46	37	106	11	38	36
Prime movers.....	702,298	319,041	382,517	740	239,187	193,757
Electric motors driven by purchased energy.....	803,444	752,614	50,145	685	378,029	374,637
Horsepower rating of electric motors driven by energy generated at the establishment.....	102,958	85,772	17,186	...	80,679	77,972
Energy used.....million kwh equivalent..	7,198	6,589	602	7	4,937	4,815
Anthracite produced and used at same establishment.....1,000 short tons..	595	595	xxx	xxx	454	454
Fuel purchased:						
Anthracite ⁵.....do....	143	141	2	...	140	140
Distillate fuel oil.....1,000 barrels..	311	95	212	4	64	15
Residual fuel oil.....do....	23	6	17	...	3	...
Gas (natural and manufactured).....million cu. ft..	1	1	(⁶)	...	...	...
Other fuels.....\$1,000..	1,631	944	685	2	218	97
Electric energy purchased.....million kwh..	731	708	23	...	353	350
Electric energy generated and used.....do....	109	94	15	...	86	82
Water intake, including mine water used.....million gallons..	27,214	27,206	8	...	10,427	10,427
Per production worker.....do....	0.82	0.94	(⁶)	...	0.64	0.67

See footnotes at end of table.

Table 3A.—DETAILED STATISTICS FOR THE ANTHRACITE MINING INDUSTRIES IN THE UNITED

(For explanation of line

Item		Geographic field ¹ —Continued					
		Northern—Continued		Eastern Middle			
		Anthracite stripping contract services industry ²	Anthracite contract services, except stripping, industry ²	Anthracite mining industries, total	Anthracite industry	Anthracite stripping contract services industry ²	Anthracite contract services, except stripping, industry ²
1	Number of operating companies.....	41	3	48	27	18	4
2	Number of establishments.....	41	3	66	44	18	4
3	Number of mines, culm banks, and dredges.....	xxx	xxx	49	49	xxx	xxx
4	Number of breakers and culm-bank washeries.....	xxx	xxx	15	15	xxx	xxx
5	Net production of anthracite, total ³.....1,000 short tons..	xxx	xxx	2,549	2,549	xxx	xxx
	Fresh-mined coal from:						
6	Underground operations.....do....	xxx	xxx	868	868	xxx	xxx
7	Strip-pit operations.....do....	(⁴)	xxx	1,132	1,132	(⁴)	xxx
8	Culm-bank coal.....do....	(⁴)	xxx	549	549	(⁴)	xxx
9	Dredge coal.....do....	xxx	xxx	...	...	xxx	xxx
10	Net shipments of anthracite, total ³.....do....	xxx	xxx	2,594	2,594	xxx	xxx
11	Raw coal sold for use without preparation.....do....	xxx	xxx	2,594	2,594	xxx	xxx
12	Breaker and washery product.....do....	xxx	xxx	...	...	xxx	xxx
13	Dredge product.....do....	xxx	xxx	...	...	xxx	xxx
14	Value of shipments, total ³.....\$1,000..	8,812	77	40,800	33,287	7,211	302
15	Raw coal sold or transferred for preparation, total.....do....	xxx	xxx	9,929	9,929	xxx	xxx
16	At plants of same company.....do....	xxx	xxx	8,280	8,280	xxx	xxx
17	At plants of other companies.....do....	xxx	xxx	1,649	1,649	xxx	xxx
18	Net shipments, total ³.....do....	8,812	77	30,871	23,358	7,211	302
19	Coal net shipments, total ³.....do....	xxx	xxx	23,358	23,358	xxx	xxx
20	Raw coal sold for use without preparation.....do....	xxx	xxx	23,358	23,358	xxx	xxx
21	Breaker and washery product.....do....	xxx	xxx	...	...	xxx	xxx
22	Dredge product.....do....	xxx	xxx	...	...	xxx	xxx
23	Other products and services.....do....	8,812	77	7,513	...	7,211	302
24	Value added in mining.....do....	6,163	58	18,263	13,301	4,743	219
25	Number of persons engaged, total.....	726	9	2,823	2,036	746	41
26	Production and development workers.....	679	7	2,572	1,876	736	36
27	All other employees.....	47	2	223	147	10	5
28	Proprietors and firm members.....	28	2	16	5	6	5
29	Performing manual labor.....	1,075	8	4,344	3,159	1,133	52
30	Man-hours worked by production and development workers.....1,000..	xxx	xxx	0.59	0.81	xxx	xxx
31	Net anthracite produced per man-hour.....short tons..	xxx	xxx	0.59	0.81	xxx	xxx
32	Principal expenses designated below, total.....\$1,000..	5,502	56	33,476	28,141	5,119	216
33	Wages of production and development workers.....do....	2,909	37	10,170	7,226	3,251	133
34	Salaries of all other employees.....do....	xxx	xxx	1,136	696	xxx	xxx
35	Raw anthracite received for preparation.....do....	2,020	19	2,981	1,752	1,171	58
36	Supplies.....do....	413	...	355	62	268	25
37	Purchased fuel.....do....	61	...	802	713	89	...
38	Purchased electric energy.....do....	99	...	7,164	6,824	340	...
39	Contract work.....do....	587	...	1,549	804	701	44
40	Purchased machinery installed.....do....	531	...	1,182	1,037	101	44
41	Capital expenditures, total.....do....	328	...	912	858	52	2
42	New capital expenditures.....do....	203	...	270	179	49	42
43	Used plant and equipment.....do....	48,642	180	146,216	61,431	83,850	935
44	Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	(D)	(D)	57	33	(D)	(D)
45	Per production worker.....	45,430	...	85,247	19,415	65,232	600
46	Prime movers.....	3,212	180	60,969	42,016	18,618	335
47	Electric motors driven by purchased energy.....	2,707	...	2,736	2,736	...	...
48	Horsepower rating of electric motors driven by energy generated at the establishment.....	122	...	571	474	90	7
49	Energy used.....million kwh equivalent..	xxx	xxx	55	55	xxx	xxx
50	Anthracite produced and used at same establishment..1,000 short tons..	xxx	xxx	55	55	xxx	xxx
	Fuel purchased:						
51	Anthracite ⁵.....do....	...	...	...	...	...	...
52	Distillate fuel oil.....1,000 barrels..	49	...	42	4	34	4
53	Residual fuel oil.....do....	3	...	...	...	...	...
54	Gas (natural and manufactured).....million cu. ft..	...	...	...	...	(⁶)	...
55	Other fuels.....\$1,000..	121	...	134	35	98	1
56	Electric energy purchased.....million kwh..	3	...	57	50	7	...
57	Electric energy generated and used.....do....	4	...	1	1	...	...
58	Water intake, including mine water used.....million gallons..	...	...	2,471	2,471	...	...
59	Per production worker.....do....	...	...	0.96	1.32	...	...

See footnotes at end of table.

STATES (PENNSYLVANIA), BY GEOGRAPHIC FIELD AND TRADE REGION: 1954—Continued

captions, see INTRODUCTION)

Geographic field ¹ —Continued								Trade region ¹				
Western Middle				Southern				Lehigh				
Anthracite mining industries, total	Anthracite industry	Anthracite stripping contract services industry ²	Anthracite contract services, except stripping, industry ²	Anthracite mining industries, total	Anthracite industry	Anthracite stripping contract services industry ²	Anthracite contract services, except stripping, industry ²	Anthracite mining industries, total	Anthracite industry	Anthracite stripping contract services industry ²	Anthracite contract services, except stripping, industry ²	
679	648	29	3	343	299	43	3	61	35	24	4	1
711	678	30	3	356	310	43	3	81	53	24	4	2
665	665	xxx	xxx	271	271	xxx	xxx	62	62	xxx	xxx	3
51	51	xxx	xxx	85	85	xxx	xxx	21	21	xxx	xxx	4
8,146	8,146	xxx	xxx	6,316	6,316	xxx	xxx	4,097	4,097	xxx	xxx	5
4,085	4,085	xxx	xxx	2,342	2,342	xxx	xxx	1,676	1,676	xxx	xxx	6
2,819	2,819	(4)	xxx	1,925	1,925	(4)	xxx	1,577	1,577	(4)	xxx	7
1,242	1,242	(4)	xxx	1,414	1,414	(4)	xxx	844	844	(4)	xxx	8
7,853	7,853	xxx	xxx	6,661	6,661	xxx	xxx	4,117	4,117	xxx	xxx	9
7,784	7,784	xxx	xxx	75	75	xxx	xxx	4,117	4,117	xxx	xxx	10
69	69	xxx	xxx	5,950	5,950	xxx	xxx	4,117	4,117	xxx	xxx	11
120,782	107,697	12,857	228	74,101	60,693	13,168	240	55,931	46,446	9,183	302	12
42,752	42,752	xxx	xxx	14,256	14,256	xxx	xxx	10,108	10,108	xxx	xxx	13
27,068	27,068	xxx	xxx	6,458	6,458	xxx	xxx	8,385	8,385	xxx	xxx	14
15,684	15,684	xxx	xxx	7,798	7,798	xxx	xxx	1,723	1,723	xxx	xxx	15
78,030	64,945	12,857	228	59,845	46,437	13,168	240	45,823	36,338	9,183	302	16
64,931	64,931	xxx	xxx	46,387	46,387	xxx	xxx	36,320	36,320	xxx	xxx	17
64,661	64,661	xxx	xxx	44,930	44,930	xxx	xxx	36,320	36,320	xxx	xxx	18
270	270	xxx	xxx	1,457	1,457	xxx	xxx	36,320	36,320	xxx	xxx	19
13,099	14	12,857	228	13,458	50	13,168	240	9,503	18	9,183	302	20
49,698	39,894	9,612	192	38,705	29,947	8,561	197	28,798	22,278	6,301	219	21
10,076	8,537	1,485	54	7,447	5,678	1,725	44	4,868	3,852	975	41	22
7,811	6,517	1,463	52	6,416	4,810	1,564	42	4,472	3,569	958	36	23
898	677	22	2	398	284	114	...	355	264	17	5	24
1,367	1,343	14	...	633	584	47	2	41	19	9	5	25
1,289	1,275	49	49	538	513	24	1	20	6	9	5	26
10,958	9,140	1,769	49	8,999	6,880	2,061	58	6,665	5,192	1,421	52	27
0.74	0.89	xxx	xxx	0.70	0.92	xxx	xxx	0.61	0.79	xxx	xxx	28
102,179	93,322	8,669	188	59,044	48,778	10,067	199	45,165	38,495	6,454	216	29
25,661	21,107	5,575	153	21,083	15,842	5,085	156	16,168	12,511	4,003	133	30
4,876	3,702	xxx	xxx	1,966	1,406	560	...	1,819	1,340	xxx	xxx	31
44,000	44,000	xxx	xxx	14,533	14,533	xxx	xxx	11,266	11,266	xxx	xxx	32
8,191	6,061	2,095	35	6,837	3,432	3,365	40	4,234	2,500	1,676	58	33
1,151	613	538	...	1,272	622	649	1	433	79	329	25	34
2,559	2,397	162	...	1,868	1,790	78	...	1,468	1,362	106	...	35
15,741	15,442	299	...	11,485	11,153	330	2	9,777	9,437	340	...	36
1,817	630	1,167	20	2,555	1,471	1,074	10	1,657	866	747	44	37
2,375	1,340	1,016	19	3,154	2,255	889	10	1,702	1,342	316	44	38
1,695	1,118	558	19	2,367	1,833	526	8	1,208	1,139	67	2	39
680	222	458	...	787	422	363	2	494	203	249	42	40
357,085	210,011	146,939	135	385,225	231,819	153,231	175	317,849	181,794	135,120	935	41
46	32	(D)	(D)	60	48	98	4	71	51	(D)	(D)	42
177,863	51,523	126,340	...	200,001	54,346	145,515	140	137,868	23,486	113,782	600	43
179,222	158,488	20,599	135	185,224	177,473	7,716	35	179,981	158,308	21,338	335	44
6,955	1,841	5,114	...	12,588	3,223	9,365	...	2,836	2,836	...	...	45
914	732	182	...	776	568	208	...	836	718	111	7	46
52	52	xxx	xxx	34	34	xxx	xxx	80	80	xxx	xxx	47
1	...	1	...	1	...	1	...	...	...	...	...	48
97	45	52	...	108	31	77	...	51	4	43	4	49
13	1	12	...	7	5	2	...	...	...	...	...	50
1	1	...	...	...	...	...	...	...	...	(6)	...	51
594	372	222	...	685	440	244	1	169	51	117	1	52
181	173	8	...	140	135	5	...	112	104	8	...	53
3	1	2	...	19	10	9	...	1	1	...	...	54
6,837	6,832	5	...	7,479	7,476	3	...	3,916	3,916	...	...	55
0.88	1.05	(D)	...	1.17	1.55	(6)	...	0.88	1.10	...	...	56

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 3A.—DETAILED STATISTICS FOR THE ANTHRACITE MINING INDUSTRIES IN THE UNITED STATES (PENNSYLVANIA),
BY GEOGRAPHIC FIELD AND TRADE REGION: 1954—Continued

(For explanation of line captions, see INTRODUCTION)

Item	Trade Region ¹ —Continued							
	Schuylkill				Wyoming			
	Anthra- cite mining indus- tries, total	Anthra- cite industry	Anthra- cite strip- ping contract services industry ²	Anthra- cite contract services, except strip- ping, industry ²	Anthra- cite mining indus- tries, total	Anthra- cite industry	Anthra- cite strip- ping contract services industry ²	Anthra- cite contract services, except strip- ping, industry ²
Number of operating companies.....	999	930	66	6	242	201	41	3
Number of establishments.....	1,052	979	67	6	303	259	41	3
Number of mines, culm banks, and dredges.....	923	923	xxx	xxx	278	278	xxx	xxx
Number of breaker and culm bank washeries.....	130	130	xxx	xxx	45	45	xxx	xxx
Net production of anthracite, total ³.....1,000 short tons..	12,914	12,914	xxx	xxx	12,244	12,244	xxx	xxx
Fresh mined coal from:								
Underground operations.....do....	5,619	5,619	xxx	xxx	9,565	9,565	xxx	xxx
Strip-pit operations.....do....	4,299	4,299	(4)	xxx	2,167	2,167	(4)	xxx
Culm-bank coal.....do....	2,304	2,304	(4)	xxx			(4)	xxx
Dredge coal.....do....	692	692	xxx	xxx	512	512	xxx	xxx
Net shipments of anthracite, total ³.....do....	12,991	12,991	xxx	xxx	11,587	11,587	xxx	xxx
Raw coal sold for use without preparation.....do....	12,302	12,302	xxx	xxx	...	...	xxx	xxx
Breaker and washery product.....do....	689	689	xxx	xxx	11,587	11,587	xxx	xxx
Dredge product.....do....			xxx	xxx			xxx	xxx
Value of shipments, total ³.....\$1,000..	179,752	155,231	24,053	468	172,748	163,859	8,812	77
Raw coal sold or transferred for preparation, total.....do....	56,829	56,829	xxx	xxx	50,086	50,086	xxx	xxx
At plants of same companies.....do....	33,421	33,421	xxx	xxx	32,019	32,019	xxx	xxx
At plants of other companies.....do....	23,408	23,408	xxx	xxx	18,067	18,067	xxx	xxx
Net shipments, total ³.....do....	122,923	98,402	24,053	468	122,662	113,773	8,812	77
Coal net shipments, total ³.....do....	98,356	98,356	xxx	xxx	111,600	111,600	xxx	xxx
Raw coal sold for use without preparation.....do....	64,931	64,931	xxx	xxx	...	...	xxx	xxx
Breaker and washery product.....do....			xxx	xxx	111,600	111,600	xxx	xxx
Dredge product.....do....			xxx	xxx			xxx	xxx
Other products and services.....do....	24,567	46	24,053	468	11,062	2,173	8,812	77
Value added in mining.....do....	77,868	60,864	16,615	389	90,169	83,948	6,163	58
Number of persons engaged, total.....	15,478	12,399	2,981	98	19,454	18,719	726	9
Production and development workers.....do....	12,327	9,634	2,919	94	16,227	15,620	679	7
All other employees.....do....	1,164	844			2,917	2,838		
Proprietors and firm members.....do....	1,987	1,921	62	4	310	261	47	2
Performing manual labor.....do....	1,823	1,787	35	1	222	192	28	2
Man-hours worked by production and development workers.....1,000..	17,636	13,987	3,542	107	23,965	22,882	1,075	8
Net anthracite produced per man-hour.....short tons..	0.73	0.92	xxx	xxx	0.51	0.54	xxx	xxx
Principal expenses designated below, total.....\$1,000..	149,534	131,746	17,401	387	154,050	148,492	5,502	56
Wages of production and development workers.....do....	40,746	31,664	10,468	309	57,018	54,503	2,909	37
Salaries of all other employees.....do....	6,159	4,464			14,019	13,588		
Raw anthracite received for preparation.....do....	58,135	58,135	xxx	xxx	50,447	50,447	xxx	xxx
Supplies.....do....	13,775	8,745	4,955	75	11,018	8,979	2,020	19
Purchased fuel.....do....	2,345	1,218	1,126	1	1,154	741	413	...
Purchased electric energy.....do....	3,761	3,538	223	...	3,558	3,497	61	...
Contract work.....do....	24,613	23,982	629	2	16,836	16,737	99	...
Purchased machinery installed.....do....	4,264	2,039	2,195	30	3,349	2,762	587	...
Capital expenditures, total.....do....	5,009	3,290	1,690	29	3,783	3,252	531	...
New capital expenditures.....do....	3,766	2,670	1,069	27	3,472	3,144	328	...
Used plant and equipment.....do....	1,243	620	621	2	311	108	203	...
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	570,677	321,467	248,900	310	617,216	568,394	48,642	180
Per production worker.....do....	46	34	(D)	(D)	38	36	(D)	(D)
Prime movers.....do....	325,243	101,798	223,305	140	239,187	193,757	45,430	...
Electric motors driven by purchased energy.....do....	245,434	219,669	25,595	170	378,029	374,637	3,212	180
Horsepower rating of electric motors driven by energy generated at the establishment.....do....	19,443	4,964	14,479	...	80,679	77,972	2,707	...
Energy used.....million kwh equivalent..	1,425	1,056	369	...	4,937	4,815	122	...
Anthracite produced and used at same establishment.....1,000 short tons..	61	61	xxx	xxx	454	454	xxx	xxx
Fuel purchased:								
Anthracite ⁵.....do....	2	...	2	...	140	140	...	...
Distillate fuel oil.....1,000 barrels..	196	76	120	...	64	15	49	...
Residual fuel oil.....do....	20	6	14	...	3	...	3	...
Gas (natural and manufactured).....million cu. ft..	1	1	...	...	...	...	...	...
Other fuels.....\$1,000..	1,244	796	447	1	218	97	121	...
Electric energy purchased.....million kwh..	266	254	12	...	353	350	3	...
Electric energy generated and used.....do....	22	11	11	...	86	82	4	...
Water intake, including mine water used.....million gallons..	12,871	12,863	8	...	10,427	10,427	...	...
Per production worker.....do....	1.04	1.34	(D)	...	0.64	0.67	...	...

D Withheld to avoid approximately disclosing figures for individual companies.

¹The coal fields in the Anthracite region of Pennsylvania are divided geographically into 4 distinct basins, known as the Northern, Eastern Middle, Western Middle, and Southern fields, and into 3 long recognized trade regions, known as the Lehigh, Schuylkill, and Wyoming regions.²Contractors were requested to prepare one report for all anthracite strip-pit and culm-bank contract services or for other anthracite contract services for others. These reports were classified on the basis of the principal geographic field, trade region, and county in which the work was performed.³See table 1, footnote 6.⁴See table 1, footnote 7.⁵See table

1, footnote 18.

⁶Less than one-half of the specified unit of measure.

Table 3B.—NUMBER OF PRODUCTION AND DEVELOPMENT WORKERS ON ACTIVE DAYS AND MAN-SHIFTS AND MAN-HOURS WORKED BY SUCH WORKERS IN THE ANTHRACITE AND ANTHRACITE STRIPPING CONTRACT SERVICES INDUSTRIES, BY COUNTY AND BY TYPE OF OPERATION: 1954

Industry, county, and type of operation	All departments				Underground, total			
	Number of workers on active days ¹	Number of days worked	Man-shifts worked (1,000)	Man-hours worked (1,000)	Number of workers on active days ¹	Number of days worked	Man-shifts worked (1,000)	Man-hours worked (1,000)
Anthracite and anthracite stripping contract services industries, total.....	42,751	159	6,812	48,099	25,725	152	3,914	27,844
ANTHRACITE INDUSTRY								
Pennsylvania, total.....	37,868	157	5,964	42,061	25,725	152	3,914	27,844
County								
Carbon.....	1,473	122	179	1,370	918	123	112	826
Columbia.....	590	220	130	964	348	224	78	556
Dauphin.....	120	153	18	149	11	211	2	16
Lackawanna.....	6,145	131	807	5,726	4,638	124	576	4,089
Luzerne.....	14,832	186	2,764	19,791	11,183	186	2,075	14,915
Northumberland.....	3,486	162	562	3,959	2,208	163	360	2,500
Schuylkill.....	11,049	133	1,467	9,798	6,381	111	706	4,908
Sullivan.....	51	129	7	46	36	134	5	34
Berks, Lancaster, Lebanon, Northampton, Snyder, and Wayne.....	122	248	30	258	2	30	...	...
Type of operation								
Producing operations, total.....	37,812	157	5,953	41,967	25,706	152	3,910	27,800
Underground.....	20,808	151	3,135	21,408	17,088	149	2,547	17,376
Mine only.....	14,428	157	2,266	15,980	12,427	158	1,958	13,808
Mine with preparation plant.....	6,380	136	869	5,428	4,661	126	589	3,568
Strip-pit.....	1,279	180	231	1,646	xxx	xxx	xxx	xxx
Mine only.....	359	181	65	458	xxx	xxx	xxx	xxx
Mine with preparation plant.....	920	179	166	1,188	xxx	xxx	xxx	xxx
Combined strip-pit and underground.....	6,706	155	1,043	7,635	5,000	160	798	5,837
Mine only.....	1,859	170	315	2,259	1,561	167	261	1,872
Mine with preparation plant.....	4,847	150	728	5,376	3,439	156	537	3,965
Culm-bank.....	1,085	171	186	1,328	xxx	xxx	xxx	xxx
Mine only.....	52	75	4	28	xxx	xxx	xxx	xxx
Mine with preparation plant.....	1,033	176	182	1,300	xxx	xxx	xxx	xxx
Combined strip-pit and culm-bank (without and with preparation plant).....	960	223	214	984	xxx	xxx	xxx	xxx
All other combinations (without and with preparation plant).....	5,217	162	842	6,688	3,618	156	565	4,587
Preparation plants only.....	1,560	167	261	1,920	xxx	xxx	xxx	xxx
Breakers.....	1,540	167	257	1,885	xxx	xxx	xxx	xxx
Washeries.....	20	205	4	35	xxx	xxx	xxx	xxx
Dredge.....	197	210	41	356	xxx	xxx	xxx	xxx
Nonproducing operations.....	56	205	11	96	19	255	4	44
ANTHRACITE STRIPPING CONTRACT SERVICES INDUSTRY ⁴								
Pennsylvania ⁵	4,883	174	848	6,038	xxx	xxx	xxx	xxx
County								
Carbon ⁵	383	131	50	379	xxx	xxx	xxx	xxx
Lackawanna ⁵	343	204	69	514	xxx	xxx	xxx	xxx
Luzerne.....	1,012	211	215	1,511	xxx	xxx	xxx	xxx
Northumberland ⁵	354	203	71	503	xxx	xxx	xxx	xxx
Schuylkill.....	2,824	159	449	3,182	xxx	xxx	xxx	xxx
Type of operation								
Strip-pit mining and removal of overburden.....	3,950	174	688	4,906	xxx	xxx	xxx	xxx
Strip-pit mining and loading culm bank material.....	520	200	104	732	xxx	xxx	xxx	xxx
Loading culm bank material only.....	413	136	56	400	xxx	xxx	xxx	xxx

See footnotes at end of table.

Table 3B.—NUMBER OF PRODUCTION AND DEVELOPMENT WORKERS ON ACTIVE DAYS AND MAN-SHIFTS AND MAN-HOURS WORKED BY SUCH WORKERS

	Industry, county, and type of operation	Underground—Continued					
		Miners and their laborers			All other underground		
		Number of workers on active days ¹	Man-shifts worked (1,000)	Man-hours worked (1,000)	Number of workers on active days ¹	Man-shifts worked (1,000)	Man-hours worked (1,000)
1	Anthracite and anthracite stripping contract services industries, total.....	16,508	2,587	18,446	9,217	1,327	9,398
	ANTHRACITE INDUSTRY						
2	Pennsylvania, total.....	16,508	2,587	18,446	9,217	1,327	9,398
	County						
3	Carbon.....	491	64	456	427	48	370
4	Columbia.....	226	51	363	122	27	193
5	Dauphin.....	9	2	13	2	...	3
6	Lackawanna.....	3,272	411	2,915	1,366	165	1,174
7	Luzerne.....	7,264	1,356	9,748	3,919	719	5,167
8	Northumberland.....	1,538	255	1,781	670	105	719
9	Schuylkill.....	3,682	445	3,147	2,699	261	1,761
10	Sullivan.....	24	3	23	12	2	11
11	Berks, Lancaster, Lebanon, Northampton, Snyder, and Wayne.....	2	...	...	...	...	...
	Type of operation						
12	Producing operations, total.....	16,505	2,587	18,445	9,201	1,323	9,355
13	Underground.....	11,413	1,743	12,110	5,675	804	5,266
14	Mine only.....	8,568	1,365	9,632	3,859	593	4,176
15	Mine with preparation plant.....	2,845	378	2,478	1,816	211	1,090
16	Strip-pit.....	xxx	xxx	xxx	xxx	xxx	xxx
17	Mine only.....	xxx	xxx	xxx	xxx	xxx	xxx
18	Mine with preparation plant.....	xxx	xxx	xxx	xxx	xxx	xxx
19	Combined strip-pit and underground.....	2,989	493	3,587	2,011	305	2,250
20	Mine only.....	1,039	176	1,264	522	85	608
21	Mine with preparation plant.....	1,950	317	2,323	1,489	220	1,642
22	Culm-bank.....	xxx	xxx	xxx	xxx	xxx	xxx
23	Mine only.....	xxx	xxx	xxx	xxx	xxx	xxx
24	Mine with preparation plant.....	xxx	xxx	xxx	xxx	xxx	xxx
25	Combined strip-pit and culm-bank (without and with preparation plant).....	xxx	xxx	xxx	xxx	xxx	xxx
26	All other combinations (without and with preparation plant).....	2,103	351	2,748	1,515	214	1,839
27	Preparation plants only.....	xxx	xxx	xxx	xxx	xxx	xxx
28	Breakers.....	xxx	xxx	xxx	xxx	xxx	xxx
29	Washeries.....	xxx	xxx	xxx	xxx	xxx	xxx
30	Dredge.....	xxx	xxx	xxx	xxx	xxx	xxx
31	Nonproducing operations.....	3	...	1	16	4	43
	ANTHRACITE STRIPPING CONTRACT SERVICES INDUSTRY ⁴						
32	Pennsylvania ⁵	xxx	xxx	xxx	xxx	xxx	xxx
	County						
33	Carbon ⁵	xxx	xxx	xxx	xxx	xxx	xxx
34	Lackawanna ⁵	xxx	xxx	xxx	xxx	xxx	xxx
35	Luzerne.....	xxx	xxx	xxx	xxx	xxx	xxx
36	Northumberland ⁵	xxx	xxx	xxx	xxx	xxx	xxx
37	Schuylkill.....	xxx	xxx	xxx	xxx	xxx	xxx
	Type of operation						
38	Strip-pit mining and removal of overburden.....	xxx	xxx	xxx	xxx	xxx	xxx
39	Strip-pit mining and loading culm bank material.....	xxx	xxx	xxx	xxx	xxx	xxx
40	Loading culm bank material only.....	xxx	xxx	xxx	xxx	xxx	xxx

See footnotes at end of table.

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IN THE ANTHRACITE AND ANTHRACITE STRIPPING CONTRACT SERVICES INDUSTRIES, BY COUNTY AND BY TYPE OF OPERATION: 1954—Continued

[illegible]

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 3B.—NUMBER OF PRODUCTION AND DEVELOPMENT WORKERS ON ACTIVE DAYS AND MAN-SHIFTS AND MAN-HOURS WORKED BY SUCH WORKERS

	Industry, county, and type of operation	Culm bank				Preparation plant	
		Number of workers on active days ¹	Number of days worked	Man-shifts worked (1,000)	Man-hours worked (1,000)	Number of workers on active days ¹	Number of days worked
1	Anthracite and anthracite stripping contract services industries, total.....	789	153	121	862	5,016	178
	ANTHRACITE INDUSTRY						
2	Pennsylvania, total.....	308	169	52	372	5,016	178
	County						
3	Carbon.....	4	312	1	9	237	138
4	Columbia.....	2	216	(3)	3	70	180
5	Dauphin.....	10	39	(3)	3	65	170
6	Lackawanna.....	38	186	7	47	463	176
7	Luzerne.....	107	142	15	107	1,307	184
8	Northumberland.....	11	58	1	4	654	164
9	Schuylkill.....	136	200	27	199	2,168	183
10	Sullivan.....	...	...	...	...	8	138
11	Berks, Lancaster, Lebanon, Northampton, Snyder, and Wayne.....	...	...	...	...	44	253
	Type of operation						
12	Producing operations, total.....	308	169	52	372	5,002	179
13	Underground.....	xxx	xxx	xxx	xxx	1,007	163
14	Mine only.....	xxx	xxx	xxx	xxx	2196	2126
15	Mine with preparation plant.....	xxx	xxx	xxx	xxx	811	172
16	Strip-pit.....	xxx	xxx	xxx	xxx	496	166
17	Mine only.....	xxx	xxx	xxx	xxx	27	2179
18	Mine with preparation plant.....	xxx	xxx	xxx	xxx	489	166
19	Combined strip-pit and underground.....	xxx	xxx	xxx	xxx	542	148
20	Mine only.....	xxx	xxx	xxx	xxx	...	...
21	Mine with preparation plant.....	xxx	xxx	xxx	xxx	542	148
22	Culm-bank.....	230	182	42	300	642	182
23	Mine only.....	52	75	4	28	...	...
24	Mine with preparation plant.....	178	213	38	272	642	182
25	Combined strip-pit and culm-bank (without and with preparation plant).....	29	92	3	19	606	248
26	All other combinations (without and with preparation plant).....	49	155	7	53	583	157
27	Preparation plants only.....	...	...	...	...	1,063	183
28	Breakers.....	...	...	...	...	1,043	182
29	Washeries.....	...	...	...	...	20	205
30	Dredge.....	xxx	xxx	xxx	xxx	63	226
31	Nonproducing operations.....	...	...	...	...	14	79
	ANTHRACITE STRIPPING CONTRACT SERVICES INDUSTRY ⁴						
32	Pennsylvania ⁵	481	143	69	490	xxx	xxx
	County						
33	Carbon ⁵	30	200	6	42	xxx	xxx
34	Lackawanna ⁵	13	79	1	7	xxx	xxx
35	Luzerne.....	65	181	12	81	xxx	xxx
36	Northumberland ⁵	56	187	10	75	xxx	xxx
37	Schuylkill.....	317	125	40*	285	xxx	xxx
	Type of operation						
38	Strip-pit mining and removal of overburden.....	13	93	1	8	xxx	xxx
39	Strip-pit mining and loading culm bank material.....	95	175	17	117	xxx	xxx
40	Loading culm bank material only.....	373	137	51	365	xxx	xxx

¹Represents the average number of men working on days when an operation was actively engaged in production or development work. Days that mines are active are days during which a mine is producing, or preparing to produce raw coal; days that preparation plants are active are days during which a plant is engaging, or preparing to engage in preparation activities. These averages are comparable with the annual employment series, "average number of men working daily", published by the Bureau of Mines.

²Represents preliminary crushing, screening, or cleaning.

³Less than 500.

⁴See table 3A, footnote 2.

⁵Total for Pennsylvania excludes, but the detail for Carbon, Lackawanna, and Northumberland counties includes data for Anthracite contract services, except stripping.

IN THE ANTHRACITE AND ANTHRACITE STRIPPING CONTRACT SERVICES INDUSTRIES, BY COUNTY AND BY TYPE OF OPERATION: 1954—Continued

Preparation plant—Con.		All other surface				Dredge				
Man-shifts worked (1,000)	Man-hours worked (1,000)	Number of workers on active days ¹	Number of days worked	Man-shifts worked (1,000)	Man-hours worked (1,000)	Number of workers on active days ¹	Number of days worked	Man-shifts worked (1,000)	Man-hours worked (1,000)	
894	5,987	5,887	157	924	6,551	135	200	27	234	1
894	5,987	5,718	156	892	6,327	135	200	27	234	2
33	272	255	119	30	243	...	...	...	...	3
13	108	112	216	24	195	9	115	1	9	4
11	92	2	214	1	3	32	128	4	35	5
82	577	890	136	121	864	...	...	...	...	6
241	1,742	2,070	194	402	2,810	3	200	1	5	7
107	786	579	151	87	614	15	150	2	20	8
395	2,309	1,806	125	226	1,595	...	...	...	...	9
1	8	4	122	1	3	...	...	...	...	10
11	93	...	...	...	...	76	251	19	165	11
893	5,981	5,697	155	886	6,284	133	203	27	233	12
164	1,102	2,713	156	424	2,930	xxx	xxx	xxx	xxx	13
225	2173	1,805	157	283	1,999	xxx	xxx	xxx	xxx	14
139	929	908	155	141	931	xxx	xxx	xxx	xxx	15
82	592	123	185	23	172	xxx	xxx	xxx	xxx	16
21	29	49	207	10	71	xxx	xxx	xxx	xxx	17
81	583	74	170	13	101	xxx	xxx	xxx	xxx	18
80	602	1,029	137	141	1,028	xxx	xxx	xxx	xxx	19
...	...	216	167	36	259	xxx	xxx	xxx	xxx	20
80	602	813	129	105	769	xxx	xxx	xxx	xxx	21
117	839	213	128	27	189	xxx	xxx	xxx	xxx	22
...	...	...	...	...	...	xxx	xxx	xxx	xxx	23
117	839	213	128	27	189	xxx	xxx	xxx	xxx	24
150	530	300	194	59	421	xxx	xxx	xxx	xxx	25
92	745	821	177	145	1,070	xxx	xxx	xxx	xxx	26
194	1,448	497	134	67	472	xxx	xxx	xxx	xxx	27
190	1,413	497	134	67	472	xxx	xxx	xxx	xxx	28
4	35	...	...	...	...	xxx	xxx	xxx	xxx	29
14	121	1	200	...	2	133	203	27	233	30
1	8	21	259	6	43	2	39	...	1	31
xxx	xxx	169	184	32	224	xxx	xxx	xxx	xxx	32
xxx	xxx	15	190	3	22	xxx	xxx	xxx	xxx	33
xxx	xxx	12	119	1	10	xxx	xxx	xxx	xxx	34
xxx	xxx	10	150	2	14	xxx	xxx	xxx	xxx	35
xxx	xxx	26	133	5	38	xxx	xxx	xxx	xxx	36
xxx	xxx	139	198	27	191	xxx	xxx	xxx	xxx	37
xxx	xxx	109	217	24	164	xxx	xxx	xxx	xxx	38
xxx	xxx	20	152	3	25	xxx	xxx	xxx	xxx	39
xxx	xxx	40	124	5	35	xxx	xxx	xxx	xxx	40

Table 3C.—DETAILED STATISTICS FOR THE ANTHRACITE MINING INDUSTRIES

(For explanation of line captions,

	Item	Anthracite mining industries, total	Anthracite industry					
			Pennsylvania, total	County				
				Carbon	Columbia	Dauphin	Lackawanna	Lucerne
1	Number of operating companies.....	1,296	1,160	15	16	31	131	83
2	Number of establishments.....	1,436	1,291	15	18	31	151	131
3	Number of mines, culm banks, and dredges.....	1,263	1,263	17	18	26	153	160
4	Number of breakers and culm-bank washeries.....	196	196	6	3	9	24	28
5	Net production of anthracite, total ⁴.....1,000 short tons..	29,255	29,255	1,270	620	120	2,977	11,119
6	Fresh-mined coal from:							
7	Underground operations.....do....	16,860	16,860	512	368	51	2,171	8,111
	Strip-pit operations.....do....	8,043	8,043	359	210	...	647	2,448
8	Culm-bank coal.....do....	3,637	3,637	399	42	{ 22	159	560
9	Dredge coal.....do....	715	715	...					47	...
10	Net shipments of anthracite ⁴.....do....	28,695	28,695	1,251	381	148	3,348	10,235
11	Value of shipments, total ⁴.....\$1,000..	408,431	365,536	11,365	8,325	1,223	52,203	139,052
12	Raw coal sold or transferred for preparation, total.....do....	117,023	117,023	1,502	4,583	318	17,808	40,302
13	At plants of same company.....do....	73,825	73,825	840	4,188	...	11,695	27,308
14	At plants of other companies.....do....	43,198	43,198	662	395	318	6,113	12,994
15	Net shipments, total ⁴.....do....	291,408	248,513	9,863	3,742	905	34,395	98,750
16	Coal net shipments, total ⁴.....do....	246,276	246,276	9,845	3,740	905	33,040	97,932
17	Raw coal sold for use without preparation.....do....	156	156	...	...	...	...	(D)
18	Breaker and washery product.....do....	244,363	244,363	9,845	3,648	713	33,040	97,856
19	Dredge product.....do....	1,757	1,757	...	92	192	...	(D)
20	Other products and services.....do....	45,132	2,237	18	2	...	1,355	818
21	Value added in mining.....do....	196,835	167,090	7,154	3,892	595	23,949	70,308
22	Number of persons engaged, total.....	39,800	34,970	909	618	148	5,514	14,885
23	Production and development workers.....do....	33,026	28,823	834	564	88	4,421	12,763
24	All other employees.....do....	4,436	3,946	69	37	8	897	2,056
25	Proprietors and firm members.....do....	2,338	2,201	6	17	52	196	66
26	Performing manual labor.....do....	2,065	1,985	2	13	49	157	35
27	Man-hours worked by production and development workers, total.....1,000..	48,266	42,061	1,370	964	149	5,726	19,791
28	Underground (mining and development).....do....	27,958	27,844	826	556	16	4,089	14,915
29	Miners and their laborers.....do....	18,446	18,446	456	363	13	2,915	9,748
30	All other underground.....do....	9,512	9,398	370	193	3	1,174	5,167
31	Strip-pit.....do....	6,621	1,297	20	93	...	149	212
32	Stripping overburden.....do....	2,492	158	...	...	...	53	29
33	Mining coal.....do....	4,129	1,139	20	93	...	96	183
34	Culm bank.....do....	862	372	9	3	3	47	107
35	Preparation plant.....do....	5,987	5,987	272	108	92	577	1,742
36	All other surface (including shops and yards).....do....	6,604	6,327	243	195	3	864	2,810
37	Dredge.....do....	234	234	...	9	35	...	5
38	Man-hours spent on development and exploration work (included above).....do....	441	441	4	15	...	13	84
39	Principal expenses designated below, total.....\$1,000..	348,749	318,733	8,097	6,732	869	46,554	125,833
40	Wages of production and development workers.....do....	113,932	98,678	3,436	2,008	237	13,815	46,725
41	Salaries of all other employees.....do....	21,997	19,392	349	191	19	4,257	9,906
42	Raw anthracite received for preparation.....do....	119,848	119,848	1,530	3,402	{ 499	21,142	39,172
43	Supplies.....do....	29,027	20,224					
44	Purchased fuel.....do....	3,932	2,038	19	28	45	537	250
45	Purchased electric energy.....do....	8,787	8,397	421	217	13	1,054	3,001
46	Contract work.....do....	51,226	50,156	2,342	886	1	3,423	18,643
47	Purchased machinery installed.....do....	9,270	5,667	67	46	95	589	2,935
48	Capital expenditures, total.....do....	10,494	7,884	168	146	80	817	3,393
49	Development and exploration of mineral property.....do....	1,438	1,438	8	71	...	124	33
50	Preparation plant construction and major alterations.....do....	1,281	1,281	63	...	...	216	784
51	Other construction.....do....	960	867	28	42	...	89	501
52	New machinery and equipment.....do....	4,767	3,367	69	32	80	206	1,971
53	Used plant and equipment.....do....	2,048	931	...	1	...	182	104

See footnotes at end of table.

IN THE UNITED STATES (PENNSYLVANIA), BY COUNTY: 1954

see INTRODUCTION)

Anthracite industry—Continued				Anthracite stripping contract services industry ¹						Anthracite contract services, except stripping, industry ¹		
County—Continued				County						County		
North- umberland	Schuylkill	Sullivan	Berks, Lancaster, Lebanon, Northamp- ton, Snyder, and Wayne	Pennsyl- vania, total ²	Carbon ²	Lacka- wanna ²	Luzerne	North- umberland ²	Schuylkill	Pennsyl- vania, total ³	Luzerne	Schuylkill
486	404	3	10	131	7	23	29	15	61	13	4	6
496	436	3	10	132	7	23	29	15	61	13	4	6
470	407	3	9	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
30	93	2	1	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
3,574	8,941	20	614	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
2,213	3,418	16	...	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
702	3,676	1	...	(⁵)	(⁵)	(⁵)	(⁵)	(⁵)	(⁵)	xxx	xxx	xxx
633	1,847	3	...	(⁵)	(⁵)	(⁵)	(⁵)	(⁵)	(⁵)	xxx	xxx	xxx
26	...	...	614	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
3,892	8,795	20	625	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
45,117	106,710	148	1,393	42,048	2,289	3,082	11,877	4,085	20,901	847	165	496
14,825	37,681	3	1	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
7,065	22,728	...	1	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
7,760	14,953	3	...	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
30,292	69,029	145	1,392	42,048	2,289	3,082	11,877	4,085	20,901	847	165	496
30,290	68,987	145	1,392	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
30,290	68,987	...	...	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
30,290	68,987	145	30	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
...	...	...	1,362	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
2	42	...	...	42,048	2,289	3,082	11,877	4,085	20,901	847	165	496
16,500	43,415	123	1,154	29,079	1,585	1,972	8,299	2,880	14,496	666	121	392
4,205	8,520	39	132	4,682	282	354	992	403	2,692	148	24	83
2,998	7,009	30	116	4,074	244	303	858	345	2,360	129	18	75
218	651	4	6	482	32	28	103	43	278	8	2	4
989	860	5	10	126	6	23	31	15	54	11	4	4
935	787	3	4	72	4	17	15	10	28	8	4	2
3,959	9,798	46	258	6,038	379	514	1,511	503	3,182	167	22	94
2,500	4,908	34	...	...	...	...	...	...	...	114	22	61
1,781	3,147	23	...	...	...	...	...	...	...	...	...	...
719	1,761	11	...	...	...	...	...	...	...	114	22	61
35	787	1	...	4,906	315	497	1,416	390	2,706	...	...	...
...	76	...	...	2,334	234	71	511	291	1,227	...	...	...
35	711	1	...	2,990	81	426	905	99	1,479	...	...	...
4	199	...	...	490	42	7	81	75	285	...	...	...
786	2,309	8	93	...	...	...	...	...	...	...	...	...
614	1,595	3	...	224	22	10	14	38	191	53	...	33
20	...	...	165	xxx	xxx	xxx	xxx	xxx	xxx	...	...	...
30	295	...	...	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
39,369	90,523	120	636	29,357	1,736	2,465	7,348	2,678	15,292	659	131	366
9,118	22,841	82	416	14,809	878	1,188	3,709	1,285	7,872	445	66	256
1,613	3,015	13	29	2,571	109	167	595	237	1,471	34	19	7
19,658	35,326	18	114	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
2,686	6,008	...	...	8,651	519	878	2,194	790	4,300	152	46	76
330	767	3	59	1,868	95	192	419	174	989	26	...	25
887	2,788	4	12	390	18	30	119	69	154	...	...	...
5,077	19,778	...	6	1,068	117	10	312	123	506	2	...	2
376	1,309	...	250	3,529	179	52	1,105	531	1,664	74	...	72
397	2,681	...	202	2,537	224	52	571	482	1,208	73	2	71
121	1,081	...	...	...	...	...	...	...	...	...	...	...
24	194	...	...	...	...	...	...	...	...	...	...	...
38	168	...	1	93	5	3	3	23	59	...	...	...
155	653	...	201	1,371	19	16	349	189	798	29	2	27
59	585	...	...	1,073	200	33	219	270	351	44	...	44

Table 3C.—DETAILED STATISTICS FOR THE ANTHRACITE MINING INDUSTRIES

(For explanation of line captions,

Item	Anthracite mining industries, total	Anthracite industry						
		Pennsylvania, total	County					
			Carbon	Columbia	Dauphin	Lackawanna	Luzerne	
1 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	1,505,742	1,071,655	83,428	19,055	5,617	160,364	456,483	
2 Per production worker.....	46	37	100	34	64	36	36	
3 Prime movers.....	702,298	319,041	2,196	4,044	4,186	50,202	158,228	
4 Electric motors driven by purchased energy.....	803,444	752,614	81,232	15,011	1,431	110,162	298,255	
5 Horsepower rating of electric motors driven by energy generated at the establishment.....	102,958	85,772	100	72	58	21,094	59,564	
6 Energy used.....million kwh equivalent..	7,198	6,589	142	63	18	1,710	3,559	
7 Anthracite produced and used at same establishment.....1,000 short tons..	595	595	14	5	...	123	385	
8 Fuel purchased:								
9 Anthracite ⁶.....do....	143	141	...	...	61	90	50	
10 Distillate fuel oil.....1,000 barrels..	311	95	...	4	2	7	10	
11 Residual fuel oil.....do....	23	6	...	...	...	1	...	
12 Gas (natural and manufactured).....million cu. ft..	1	1	...	...	...	...	...
Other fuels.....\$1,000..	1,631	944	17	10	29	80	42	
13 Electric energy purchased.....million kwh..	731	708	34	16	...	93	298	
14 Electric energy generated and used.....do....	109	94	...	...	...	17	66	
15 Water intake, including mine water used.....million gallons..	27,214	27,206	1,323	282	324	2,979	9,266	
16 Per production worker.....do....	0.82	0.94	1.59	0.50	3.68	0.67	0.73	

¹See table 3A, footnote 2.²See table 3B, footnote 5.³Includes figures for Carbon, Lackawanna, and Northumberland counties for which separate statistics could not be published.⁴For explanation of "net production" and "net shipments", see table 1, footnote 6.⁵See table 1, footnote 7.⁶See table 1, footnote 18.⁷See table 3A, footnote 6.

IN THE UNITED STATES (PENNSYLVANIA), BY COUNTY: 1954—Continued

see INTRODUCTION)

Anthracite industry—Continued				Anthracite stripping contract services industry ¹						Anthracite contract services, except stripping industry ¹			
County—Continued													
North- umberland	Schuylkill	Sullivan	Berks, Lancaster, Lebanon, Northamp- ton, Snyder, and Wayne	Pennsyl- vania, total ²	County					Pennsyl- vania, total ³	County		
					Carbon ²	Lacka- wanna ²	Luzerne	North- umberland ²	Schuylkill		Luzerne	Schuylkill	
92,723	247,746	500	5,739	432,662	55,167	29,739	83,673	50,496	213,887	1,425	215	910	1
31	35	17	49	106	226	98	98	146	91	11	12	12	2
21,946	72,726	100	5,413	382,517	52,147	28,409	63,173	39,785	199,003	740	...	740	3
70,777	175,020	400	326	50,145	3,020	1,330	20,500	10,711	14,884	685	215	170	4
1,710	2,274	...	900	17,186	...	687	2,020	3,800	10,679	...	...	...	5
263	813	...	21	602	33	57	132	53	327	7	...	7	6
15	53	...	...	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	7
...	...	...	...	2	...	...	...	...	2	...	...	...	8
17	47	...	8	212	13	26	48	14	111	4	...	4	9
...	5	...	...	17	...	...	3	5	9	...	...	...	10
1	...	...	...	(7)	(7)	...	...	...	...	...	...	...	11
238	507	1	20	685	36	43	146	66	395	2	...	1	12
63	203	...	1	23	2	2	8	3	8	...	...	...	13
1	2	...	8	15	...	1	3	...	11	...	...	...	14
4,415	6,591	1	2,025	8	...	...	...	...	8	...	...	...	15
1.47	0.94	0.03	17.46	(7)	...	...	...	...	(7)	...	...	...	16

Table 4.—DETAILED STATISTICS FOR THE ANTHRACITE MINING INDUSTRIES

(For explanation of line

Item	Anthracite mining industries, total	Anthracite industry		
		All types of establishments	Producing establishments (underground)	
			Without preparation plant	With preparation plant
1 Number of operating companies.....	1,296	1,160	936	15
2 Number of establishments.....	1,436	1,291	956	18
3 Number of mines, culm banks, and dredges.....	1,263	1,263	956	18
4 Number of preparation plants and dredges.....	222	222	xxx	18
5 Net production of anthracite, total ¹.....1,000 short tons..	29,255	29,255	9,237	1,931
6 Fresh-mined coal from:				
7 Underground operations.....do....	16,860	16,860	9,237	1,931
8 Strip-pit operations.....do....	8,043	8,043	xxx	xxx
9 Culm-bank coal.....do....	3,637	3,637	xxx	xxx
10 Dredge coal.....do....	715	715	xxx	xxx
11 Net shipments of anthracite, total ¹.....do....	28,695	28,695	...	5,073
12 Raw coal sold for use without preparation.....do....	124	124	...	...
13 Breaker and washery product.....do....	27,859	27,859	xxx	5,073
14 Dredge product.....do....	712	712	xxx	xxx
15 Value of shipments, total ¹.....\$1,000..	408,431	365,536	68,192	50,568
16 Raw coal sold or transferred for preparation.....do....	117,023	117,023	67,423	17
17 Net shipments, total ¹.....do....	291,408	248,513	769	50,551
18 Coal net shipments.....do....	246,276	246,276	...	49,860
19 Other products and services.....do....	45,132	2,237	769	691
20 Value added in mining.....do....	196,835	167,090	56,206	18,680
21 Number of persons engaged, total.....	39,800	34,970	13,903	4,533
22 Production and development workers.....	33,026	28,823	11,381	3,705
23 All other employees.....	4,436	3,946	534	817
24 Proprietors and firm members.....	2,338	2,201	1,988	11
25 Performing manual labor.....	2,065	1,985	1,850	4
26 Man-hours worked by production and development workers, total.....1,000..	48,266	42,061	15,980	5,428
27 Underground (mining and development).....do....	27,958	27,844	13,808	3,568
28 Strip pit (stripping overburden and mining coal).....do....	6,621	1,297	...	...
29 Culm bank.....do....	862	372	...	...
30 Preparation plant.....do....	5,987	5,987	4173	929
31 All other surface (including shops and yards).....do....	6,604	6,327	1,999	931
32 Dredge.....do....	234	234	...	...
33 Man-hours spent on development and exploration work (included above).....do....	441	441	173	107
34 Principal expenses designated below, total.....\$1,000..	348,749	318,733	51,858	49,158
35 Wages of production and development workers.....do....	113,932	98,678	37,418	12,760
36 Salaries of all other employees.....do....	21,997	19,392	2,527	4,308
37 Raw anthracite received for preparation.....do....	119,848	119,848	...	27,534
38 Supplies.....do....	29,027	20,224	7,535	2,339
39 Purchased fuel.....do....	3,932	2,038	890	188
40 Purchased electric energy.....do....	8,787	8,397	2,264	1,220
41 Contract work.....do....	51,226	50,156	1,224	809
42 Purchased machinery installed.....do....	9,270	5,667	1,514	66
43 Capital expenditures, total.....do....	10,494	7,884	1,441	268
44 Development and exploration of mineral property.....do....	1,438	1,438	462	49
45 Preparation plant construction and major alterations.....do....	1,281	1,281	...	63
46 Other construction.....do....	960	867	184	115
47 New machinery and equipment.....do....	4,767	3,367	625	41
48 Used plant and equipment.....do....	2,048	931	170	...

ANTHRACITE MINING

11B-25

IN THE UNITED STATES (PENNSYLVANIA), BY TYPE OF OPERATION: 1954

captions, see INTRODUCTION)

Anthracite industry—Continued												
Producing establishments—Continued											Non-producing establishments	
Strip pits		Combined underground mines and strip pits		Culm banks		Combined strip pits and culm banks (without and with preparation plant)	Combined underground mines, strip pits, and culm banks	Preparation plants only		Dredges		
Without preparation plant	With preparation plant	Without preparation plant	With preparation plant	Without preparation plant	With preparation plant			Breakers	Washeries			
33	19	13	8	14	37	11	7	80	5	26	7	1
74	19	14	10	18	39	12	9	82	5	26	9	2
79	20	28	20	18	39	24	27	xxx	xxx	26	8	3
xxx	19	xxx	10	xxx	39	11	9	82	5	26	3	4
4,155	870	1,552	2,910	582	2,157	1,321	3,825	xxx	xxx	715	xxx	5
xxx	xxx	958	2,110	xxx	xxx	xxx	2,624	xxx	xxx	xxx	xxx	6
4,155	870	594	800	xxx	xxx	656	968	xxx	xxx	xxx	xxx	7
xxx	xxx	xxx	xxx	582	2,157	665	233	xxx	xxx	xxx	xxx	8
xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	715	xxx	9
...	1,808	...	3,296	124	3,118	2,660	5,493	6,328	83	712	xxx	10
...	...	...	...	124	...	...	...	...	...	...	xxx	11
xxx	1,808	xxx	3,296	xxx	3,118	2,660	5,493	6,328	83	xxx	xxx	12
xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	712	xxx	13
34,827	16,688	12,605	33,644	1,525	17,755	21,123	51,063	55,456	311	1,779	xxx	14
34,827	10	12,605	277	1,369	213	79	95	108	...	...	xxx	15
...	16,678	...	33,367	156	17,542	21,044	50,968	55,348	311	1,779	xxx	16
...	16,678	...	33,367	156	17,542	21,040	50,203	55,342	311	1,777	xxx	17
...	...	...	...	...	...	4	765	6	...	2	xxx	18
11,480	5,465	7,823	20,486	839	6,884	5,903	25,043	6,955	136	1,480	(³)	19
326	859	1,685	3,965	32	1,029	821	5,640	1,874	22	224	57	20
263	743	1,606	3,412	21	887	763	4,598	1,212	19	176	40	21
36	107	74	553	11	116	55	1,042	584	3	12	13	22
27	9	5	...	11	26	3	...	78	3	36	4	23
17	7	3	...	10	9	3	...	54	1	25	2	24
458	1,188	2,259	5,376	28	1,300	984	6,688	1,885	35	356	96	25
...	...	1,872	3,965	...	...	...	4,587	...	...	...	44	26
378	504	128	40	...	...	14	233	...	...	...	...	27
...	...	...	...	28	272	19	53	...	...	...	...	28
49	583	...	602	...	839	530	745	1,413	35	121	8	29
71	101	259	769	...	189	421	1,070	472	...	2	43	30
...	...	...	...	...	...	...	...	...	...	233	1	31
13	44	8	7	4	10	...	64	...	...	...	11	32
24,955	14,539	10,410	28,573	771	14,497	18,160	48,379	55,660	224	859	690	33
1,065	2,783	5,466	12,908	63	3,024	2,452	16,171	3,710	57	573	236	34
196	477	386	2,446	...	483	343	4,937	3,169	...	43	69	35
(⁹)	98,772	...	5,892	...	6,962	9,823	14,143	46,570	136	16	...	36
(⁹)	91,579	969	2,406	13	983	546	2,572	1,107	6	108	61	37
(⁹)	283	56	21	13	82	57	201	152	6	89	...	38
222	425	384	821	5	592	356	904	863	6	17	318	39
21,272	2,420	3,149	4,079	677	2,371	4,583	9,451	89	13	13	6	40
328	134	406	647	45	801	191	822	357	8	269	79	41
675	190	182	708	67	920	336	2,073	637	...	213	174	42
330	...	24	...	...	...	...	565	5	...	...	3	43
24	10	...	152	...	122	206	532	127	...	10	35	44
3	70	34	122	31	6	5	222	16	...	1	58	45
90	96	7	434	26	766	35	730	268	...	202	47	46
228	14	117	...	10	26	90	24	221	...	...	31	47

Table 4.—DETAILED STATISTICS FOR THE ANTHRACITE MINING INDUSTRIES IN

(For explanation of line

	Item	Anthracite mining industries, total	Anthracite industry		
			All types of establish- ments	Producing establishments (underground)	
				Without preparation plant	With preparation plant
1	Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	1,505,742	1,071,655	281,221	150,338
2	Per production worker.....	46	37	25	41
3	Prime movers.....	702,298	319,041	60,415	46,174
4	Electric motors driven by purchased energy.....	803,444	752,614	220,806	104,164
5	Horsepower rating of electric motors driven by energy generated at the establishment.	102,958	85,772	5,950	17,548
6	Energy used.....million kwh equivalent..	7,198	6,589	1,051	1,582
7	Anthracite produced and used at same establishment.....1,000 short tons..	595	595	34	167
8	Fuels purchased:				
9	Anthracite.....do....	6143	6141	59	31
10	Distillate fuel oil.....1,000 barrels..	311	95	27	(²)
11	Residual fuel oil.....do....	23	6	2	...
12	Gas (natural and manufactured).....million cu.ft....	1	1	1	...
13	Other fuels.....\$1,000..	1,631	944	467	41
14	Electric energy purchased.....million kwh..	731	708	193	100
15	Electric energy generated and used.....do....	109	94	7	12
16	Water intake including mine water used..... million gallons..	27,214	27,206	764	3,702
17	Per production worker..... do....	0.82	0.94	0.07	1.00

See footnotes at end of table.

THE UNITED STATES (PENNSYLVANIA), BY TYPE OF OPERATION: 1954—Continued

captions, see INTRODUCTION)

Anthracite industry--Continued												
Producing establishments--Continued											Non-producing establishments	
Strip pits		Combined underground mines and strip pits		Culm banks		Combined strip pits and culm banks (without and with preparation plant)	Combined underground mines, strip pits, and culm banks	Preparation plants only		Dredges		
Without preparation plant	With preparation plant	Without preparation plant	With preparation plant	Without preparation plant	With preparation plant			Breakers	Washeries			
21,440	62,351	42,582	152,507	1,980	46,211	28,283	138,752	73,383	1,996	8,668	61,943	1
82	84	27	45	(D)	52	37	30	61	(D)	49	1,549	2
19,544	18,746	5,521	21,700	1,690	18,273	6,837	79,964	18,099	1,238	7,950	12,890	3
1,896	43,605	37,061	130,807	290	27,938	21,446	58,788	55,284	758	718	49,053	4
2,884	205	1,066	300	27	545	...	55,695	170	350	1,002	30	5
55	180	55	1,050	6	383	56	1,926	146	16	42	41	6
...	13	(⁵)	131	...	43	3	195	6	2	1	...	7
(⁵)	...	(⁵)	...	...	...	...	50	...	...	71	...	8
18	17	5	1	2	3	3	9	1	(⁵)	9	...	9
...	...	...	...	1	2	1	...	...	...	...	...	10
...	...	...	...	...	...	...	...	...	...	...	...	11
37	60	32	14	3	52	35	9	148	4	42	...	12
15	39	38	71	(⁵)	42	18	87	63	(⁵)	1	41	13
2	(⁵)	1	(⁵)	...	(⁵)	...	64	(⁵)	(⁵)	8	(⁵)	14
...	1,848	49	2,150	134	4,522	782	4,318	6,195	274	2,417	51	15
...	2.49	0.03	0.63	(D)	5.10	1.02	0.94	5.11	(⁵)	13.73	11.28	16

Table 4.—DETAILED STATISTICS FOR THE ANTHRACITE MINING INDUSTRIES IN THE UNITED STATES (PENNSYLVANIA), BY TYPE OF OPERATION: 1954—Continued

(For explanation of line captions, see INTRODUCTION)

Item	Anthracite stripping contract services				Anthracite contract services, except stripping		
	All kinds of work	Strip-pit mining and removal of overburden	Strip-pit mining and loading culm-bank material	Loading culm-bank material only	All kinds of work	Shaft sinking, mine tunneling, and rock work	Drilling, conveyor-belt transportation, and back-filling
Number of operating companies.....	131	97	12	23	13	9	4
Number of establishments.....	132	97	12	23	13	9	4
Number of mines, culm banks, and dredges.....	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Number of preparation plants and dredges.....	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Net production of anthracite, total ¹.....1,000 short tons..	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Fresh-mined coal from:—							
Underground operations.....do....	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Strip-pit operations.....do....	(2)	(2)	(2)	xxx	xxx	xxx	xxx
Culm-bank coal.....do....	(2)	xxx	(2)	(2)	xxx	xxx	xxx
Dredge coal.....do....	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Net shipments of anthracite, total ¹.....do....	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Raw coal sold for use without preparation.....do....	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Breaker and washery product.....do....	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Dredge product.....do....	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Value of shipments, total ¹.....\$1,000..	42,048	34,821	4,699	2,528	847	574	273
Raw coal sold or transferred for preparation.....do....	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Net shipments, total ¹.....do....	42,048	34,821	4,699	2,528	847	574	273
Coal net shipments.....do....	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Other products and services.....do....	42,048	34,821	4,699	2,528	847	574	273
Value added in mining.....do....	29,079	23,842	3,353	1,884	666	455	211
Number of persons engaged, total.....	4,682	3,792	479	411	148	108	40
Production and development workers.....	4,074	3,280	443	351	129	100	37
All other employees.....	482	415	31	36	8	8	3
Proprietors and firm members.....	126	97	5	24	11	5	3
Performing manual labor.....	72	56	2	14	8	5	3
Man-hours worked by production and development workers, total...1,000..	6,038	4,906	732	400	167	114	53
Underground (mining and development).....do....	...	...	...	...	114	114	...
Strip-pit (stripping overburden and mining coal).....do....	5,324	4,734	590	...	...	...	...
Culm bank.....do....	490	8	117	365	...	...	...
Preparation plant.....do....	...	...	...	...	...	...	...
All other surface (including shops and yards).....do....	224	164	25	35	53	...	53
Dredge.....do....	...	...	...	...	...	...	...
Man-hours spent on development and exploration work (included above).....do....	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Principal expenses designated below, total.....\$1,000..	29,357	24,611	3,058	1,688	659	472	187
Wages of production and development workers.....do....	14,809	12,071	1,734	1,004	445	351	128
Salaries of all other employees.....do....	2,571	2,253	170	148	34	...	...
Raw anthracite received for preparation.....do....	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Supplies.....do....	8,651	7,861	669	121	152	119	33
Purchased fuel.....do....	1,868	1,456	212	200	26	...	26
Purchased electric energy.....do....	390	289	86	15	...	...	...
Contract work.....do....	1,068	681	187	200	2	2	...
Purchased machinery installed.....do....	3,529	2,884	421	224	74	10	64
Capital expenditures, total.....do....	2,537	2,192	229	116	73	12	61
Development and exploration of mineral property.....do....	...	...	...	...	...	...	...
Preparation plant construction and major alterations.....do....	...	...	...	...	...	...	...
Other construction.....do....	93	92	...	1	...	...	...
New machinery and equipment.....do....	1,371	1,255	51	65	29	10	19
Used plant and equipment.....do....	1,073	845	178	50	44	2	42

ANTHRACITE MINING

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Table 4.—DETAILED STATISTICS FOR THE ANTHRACITE MINING INDUSTRIES IN THE UNITED STATES (PENNSYLVANIA), BY TYPE OF OPERATION: 1954—Continued

(For explanation of line captions, see INTRODUCTION)

Item	Anthracite stripping contract services				Anthracite contract services, except stripping		
	All kinds of work	Strip-pit mining and removal of overburden	Strip-pit mining and loading culm-bank material	Loading culm-bank material only	All kinds of work	Shaft sinking, mine tunneling, and rock work	Drilling, conveyor-belt transportation, and back-filling
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	432,662	351,229	45,462	35,971	1,425	265	1,160
Per production worker.....	106	107	103	102	11	(D)	(D)
Prime movers.....	382,517	306,389	41,487	34,641	740	...	740
Electric motors driven by purchased energy.....	50,145	44,840	3,975	1,330	685	265	420
Horsepower rating of electric motors driven by energy generated at the establishment.....	17,186	16,127	978	81	...	...	...
Energy used.....million kwh equivalent..	602	473	72	57	7	...	7
Anthracite produced and used at same establishment.....1,000 short tons..	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Fuel purchased:							
Anthracite.....do....	2	2	...	...	...	...	...
Distillate fuel oil.....1,000 barrels..	212	180	19	13	4	...	4
Residual fuel oil.....do....	17	12	5	...	...	...	...
Gas (natural and manufactured).....million cu.ft...	(⁵)	(⁵)	...	...	...	...	...
Other fuels.....\$1,000..	685	455	94	136	2	...	2
Electric energy purchased.....million kwh..	23	15	7	1	...	...	...
Electric energy generated and used.....do....	15	14	1	(⁵)	...	...	...
Water intake, including mine water used.....million gallons..	8	8	...	...	...	...	...
Per production worker.....do....	(⁸)	(⁸)	...	...	...	...	...

D Withheld to avoid approximately disclosing figures for individual companies.

¹See table 1, footnote 6.

²See table 1, footnote 7.

³Value added is not shown since the cost of supplies, purchased electric energy, contract work, and purchased machinery installed exceeds the capital expenditures by \$290,000.

⁴See table 3B, footnote 2.

⁵Less than one-half of the specified unit of measure.

⁶See table 1, footnote 18.

⁷Represents bituminous coal.

⁸See table 3A, footnotes 6.

⁹Figures for costs of coal received for preliminary preparation, supplies, and purchased fuels for Strip pits without preparation plants are included with those for Strip pits with preparation plant.

Table 5A.—PRODUCTS OF THE ANTHRACITE INDUSTRY IN THE UNITED STATES (PENNSYLVANIA): 1954 and 1939

Product	1954						1939 production	
	Total shipped, sold, or used		Sold to local trade within anthracite region or used by employees		Shipped by rail and by truck outside anthracite region or put in storage			
	Quantity (1,000 short tons)	Value (\$1,000)	Quantity (1,000 short tons)	Value (\$1,000)	Quantity (1,000 short tons)	Value (\$1,000)	Quantity (1,000 short tons)	Value (\$1,000)
All products and services, total.....	xxx	365,536	xxx	xxx	xxx	xxx	xxx	¹ 189,648
PRIMARY PRODUCTS								
Raw coal sold for use without preparation.....	124	156	xxx	xxx	xxx	xxx	490	443
Raw coal mined and prepared at the same establishment.....	21,367	xxx	xxx	xxx	xxx	xxx	66,238	(NA)
Raw coal sold or transferred:								
For preparation at other plants of same company.....	14,852	73,825	xxx	xxx	xxx	xxx	4,336	(NA)
For preparation at plants of other companies.....	8,829	41,037	xxx	xxx	xxx	xxx		
Screenings sold for further processing.....	496	2,161	xxx	xxx	xxx	xxx	...	...
Raw coal used for power and heat.....	34	xxx	xxx	xxx	xxx	xxx	(NA)	(NA)
Prepared coal:								
For use for power and heat.....	561	xxx	xxx	xxx	xxx	xxx	51,376	188,989
For shipment, sale, or employee use, total.....	28,571	246,120	3,846	33,784	24,725	212,336		
Lump and broken.....	82	1,018	32	391	50	627		
Egg.....	350	4,199	4	54	346	4,145		
Stove.....	4,878	60,025	171	2,033	4,707	57,992		
Chestnut.....	5,509	66,623	548	6,967	4,961	59,656		
Pea.....	3,071	29,652	1,091	11,427	1,980	18,225		
Buckwheat no. 1.....	3,718	30,793	606	5,433	3,112	25,360		
Buckwheat no. 2.....	2,523	18,180	466	3,514	2,057	14,666		
Buckwheat no. 3.....	3,348	18,264	423	2,329	2,925	15,935		
Buckwheat no. 4.....	1,939	7,613	171	624	1,768	6,989		
Silt.....	1,912	6,266	187	534	1,725	5,732		
Other.....	1,241	3,487	147	478	1,094	3,009		
SECONDARY PRODUCTS								
Electric energy generated and sold.....	² 195	1,740	xxx	xxx	xxx	xxx	² 6	53
Other products.....	xxx	³ 282	xxx	xxx	xxx	xxx	xxx	2
Receipts for services.....	xxx	215	xxx	xxx	xxx	xxx	xxx	161

NA Not available. ¹Represents "net production," see table 1, footnote 6. ²Represents million kilowatt hours. ³Steam sold; crushed stone, sand, and cinders shipped.

Table 5B.—RECEIPTS FOR SERVICES PERFORMED, RAW COAL MINED, AND MAN-HOURS WORKED AT STRIP PITS AND CULM BANKS IN THE ANTHRACITE STRIPPING CONTRACT SERVICES INDUSTRY IN THE UNITED STATES (PENNSYLVANIA), BY COUNTY: 1954 and 1939

(Represents all strip-pit and culm-bank work performed on contract for the anthracite industry. For the presentation of general statistics, the contractor reports were classified on the basis of the principal county in which services were performed. However, selected data were also obtained distributing activities on the basis of the county or counties in which the services were actually performed. This table presents such statistics based on both classifications)

State and county	Total receipts for services (\$1,000)	Kind of service performed				Man-hours worked by production and development workers (1,000)		
		Removal of overburden and strip-pit mining		Loading culm bank material		Total	At strip-pit	At culm-bank
		Raw coal mined (1,000 short tons)	Receipts for services (\$1,000)	Culm-bank material loaded (1,000 short tons)	Receipts for services (\$1,000)			
Pennsylvania.....1954..	42,048	11,328	¹ 38,442	5,128	3,606	6,038	² 5,548	490
.....1939..	10,936	³ 7,249	(NA)	³ 4,909	(NA)	4,038	³ 3,441	³ 672
By county in which contract establishment was classified:								
Carbon.....1954..	⁴ 2,289	685	(D)	516	(D)	⁴ 379	⁴ 337	42
Lackawanna.....1954..	⁴ 3,082	768	⁴ 3,035	47	47	⁴ 514	⁴ 507	7
Luzerne.....1954..	11,877	2,927	11,533	510	344	1,511	1,430	81
Northumberland.....1954..	⁴ 4,085	936	(D)	1,085	(D)	⁴ 503	⁴ 428	75
Schuylkill.....1954..	20,901	6,012	18,648	2,970	2,253	3,182	2,897	285
By county in which contract services were performed:								
Carbon.....1954..	(NA)	493	(NA)	668	(NA)	363	304	59
.....1939..	(NA)	283	(NA)	(⁵)	(NA)	(NA)	199	(⁵)
Columbia.....1954..	(NA)	235	(NA)	32	(NA)	96	93	3
.....1939..	(NA)	259	(NA)	...	...	112	112	...
Lackawanna.....1954..	(NA)	723	(NA)	101	(NA)	494	483	11
.....1939 ⁶ ..	(NA)	791	(NA)	501	(NA)	487	393	94
Luzerne.....1954..	(NA)	³ 1,211	(NA)	281	(NA)	1,644	1,590	54
.....1939..	(NA)	1,985	(NA)	81	(NA)	1,123	1,102	21
Northumberland.....1954..	(NA)	1,100	(NA)	1,446	(NA)	609	483	126
.....1939..	(NA)	³ 1,335	(NA)	³ 1,204	(NA)	697	³ 415	³ 158
Schuylkill.....1954..	(NA)	5,566	(NA)	2,600	(NA)	2,832	2,550	282
.....1939 ⁷ ..	(NA)	2,596	(NA)	⁵ 3,123	(NA)	1,619	1,220	⁵ 399

NA Not available. D Withheld to avoid approximately disclosing figures for individual companies. ¹Includes receipts for other services amounting to less than one percent of this total. ²Includes man-hours worked at services other than removal of overburden or mining coal amounting to less than 5 percent of this total. ³Data for the anthracite industry in Northumberland county are included with those for the anthracite stripping contract services industry. ⁴Includes data for anthracite contract services, except stripping, amounting to less than 5 percent of the "Total receipts for services" and of the receipts for "Removal of overburden and strip-pit mining" and to less than 10 percent of the man-hours figures shown. ⁵Statistics for the mining of a small tonnage of culm-bank coal by contractors in Carbon county are included with the statistics for Schuylkill county. ⁶Includes statistics for Susquehanna and Wayne counties. ⁷Includes statistics for Dauphin and Lebanon counties.

Table 5C.—PRODUCTS OF THE ANTHRACITE INDUSTRY IN THE UNITED STATES (PENNSYLVANIA), BY COUNTY: 1954, AND SELECTED COMPARATIVE STATISTICS, BY COUNTY: 1954 AND 1939

Product description	Pennsylvania, total		County							
			Carbon		Columbia		Dauphin		Lackawanna	
	Quantity (1,000 short tons)	Value (\$1,000)	Quantity (1,000 short tons)	Value (\$1,000)	Quantity (1,000 short tons)	Value (\$1,000)	Quantity (1,000 short tons)	Value (\$1,000)	Quantity (1,000 short tons)	Value (\$1,000)
All products and services, total.....	xxx	365,536	xxx	11,365	xxx	8,325	xxx	1,223	xxx	52,203
PRIMARY PRODUCTS										
Net production of anthracite, total.....	29,255	xxx	1,270	xxx	620	xxx	120	xxx	2,977	xxx
Underground coal.....	16,860	xxx	512	xxx	368	xxx	51	xxx	2,171	xxx
Strip-pit coal.....	8,043	xxx	359	xxx	210	xxx	...	xxx	647	xxx
Mined by same company.....	1,265	xxx	22	xxx	47	xxx	...	xxx	181	xxx
Mined by contractor.....	6,778	xxx	337	xxx	163	xxx	...	xxx	466	xxx
Culm-bank coal (mined by same company and by contractors).....	3,637	xxx	399	xxx	42	xxx	22	xxx	159	xxx
Dredge and river coal.....	715	xxx	...	xxx			47	xxx	...	xxx
Raw coal sold or transferred for preparation:										
At plants of same company.....	14,852	73,825	196	840	919	4,188	...	...	2,022	11,695
At plants of other companies.....	8,829	41,037	137	662	90	395	84	318	1,186	6,113
Screenings sold for further processing.....	496	2,161	...	...	...	...	...	...	...	...
Raw coal sold for use without preparation.....	124	156	...	...	...	...	...	...	...	...
Breaker, washery, and dredge product:										
1954.....	28,536	245,670	1,251	9,845	381	3,740	148	905	3,348	33,040
1939.....	51,376	188,989	2,190	26,690	3,488	31,680	2,623	21,911	8,561	32,622
Sold to local trade.....	3,846	33,784	40	417	35	335	74	462	790	8,520
Shipped outside the anthracite region.....	24,690	211,886	1,211	9,428	346	3,405	74	443	2,558	24,520
Anthracite prepared in 1953 and sold from stock.....	35	450	...	...	...	...
Anthracite used for colliery fuel:										
Raw coal.....	34	xxx	...	...	3	xxx	(1)	xxx	(1)	xxx
Prepared coal.....	561	xxx	14	xxx	2	xxx	...	xxx	123	xxx
SECONDARY PRODUCTS										
Electric energy generated and sold.....	4195	1,740	xxx	...	xxx	...	xxx	...	(D)	1,355
Other products and services.....	xxx	497	xxx	18	xxx	2	xxx	...	xxx	
County—Continued										
	Luzerne		Northumberland		Schuylkill		Sullivan		Berks, Lancaster, Lebanon, Northampton, Snyder, and Wayne	
	Quantity (1,000 short tons)	Value (\$1,000)	Quantity (1,000 short tons)	Value (\$1,000)	Quantity (1,000 short tons)	Value (\$1,000)	Quantity (1,000 short tons)	Value (\$1,000)	Quantity (1,000 short tons)	Value (\$1,000)
All products and services, total.....	xxx	139,052	xxx	45,117	xxx	106,710	xxx	148	xxx	1,393
PRIMARY PRODUCTS										
Net production of anthracite, total.....	1,119	xxx	3,574	xxx	8,941	xxx	20	xxx	614	xxx
Underground coal.....	8,111	xxx	2,213	xxx	3,418	xxx	16	xxx	(1)	xxx
Strip-pit coal.....	2,448	xxx	702	xxx	3,676	xxx	1	xxx	...	xxx
Mined by same company.....	204	xxx	55	xxx	755	xxx	1	xxx	...	xxx
Mined by contractor.....	2,244	xxx	647	xxx	2,921	xxx	...	xxx	...	xxx
Culm-bank coal (mined by same company and by contractors).....	560	xxx	633	xxx	1,847	xxx	3	xxx	...	xxx
Dredge and river coal.....		xxx	26	xxx	...	xxx	...	xxx	614	xxx
Raw coal sold or transferred for preparation:										
At plants of same company.....	4,708	27,308	2,121	7,065	4,886	22,728	...	...	(1)	1
At plants of other companies.....	2,255	12,992	1,899	7,652	3,177	12,902	1	3	...	...
Screenings sold for further processing.....	(D)	(D)	(D)	(D)	(D)	(D)	...	...	...	...
Raw coal sold for use without preparation.....	(D)	(D)	(D)	(D)	(D)	(D)	...	...	...	...
Breaker, washery, and dredge product:										
1954.....	10,204	97,886	3,874	30,255	8,720	68,912	20	145	625	1,392
1939.....	23,122	38,229	5,591	20,233	10,811	36,853	34	89	2,216	2,682
Sold to local trade.....	1,595	13,792	460	3,827	808	6,239	8	65	36	127
Shipped outside the anthracite region.....	8,609	84,094	3,414	26,428	7,912	62,773	12	80	589	1,265
Anthracite prepared in 1953 and sold from stock.....
Anthracite used for colliery fuel:										
Raw coal.....	2	xxx	9	xxx	20	xxx	...	xxx	...	xxx
Prepared coal.....	383	xxx	6	xxx	33	xxx	...	xxx	...	xxx
SECONDARY PRODUCTS										
Electric energy generated and sold.....	(D)	818	xxx	...	xxx	...	xxx	...	xxx	...
Other products and services.....	xxx		xxx	2	xxx	42	xxx	...	xxx	...

D Withheld to avoid approximately disclosing figures for individual companies.

¹Less than 500 tons.²Figures for Berks county are included with those for Carbon county; figures for Lebanon county are included with those for Dauphin county. Figures for "Berks, Lancaster, Lebanon, Northampton, Snyder, and Wayne" counties include data for Lehigh, Susquehanna and York counties in which no production was reported for 1954. There was no production reported for 1939 in Lancaster and Snyder counties.³Figures for one dredging operation in Luzerne County are included with those for Columbia County.⁴Represents million kilowatt hours.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 6.—GENERAL STATISTICS FOR ANTHRACITE MINING ESTABLISHMENTS IN THE UNITED STATES (PENNSYLVANIA)
 CLASSIFIED BY EMPLOYMENT SIZE, BY INDUSTRY AND COUNTY: 1954
 (For explanation of column captions, see INTRODUCTION)

Industry, county, and number of employees in establishment	Number of establishments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
Anthracite mining industries, total.....	1,436	408,431	196,835	33,026	4,436	48,266	113,932	21,997	8,446
Anthracite industry (Pennsylvania), total.....	1,291	365,536	167,090	28,823	3,946	42,061	98,678	19,392	6,953
0.....	655	40,202	16,919	...	...	2	7	...	482
1-4.....	230	5,524	2,945	555	21	844	1,372	62	243
5-9.....	134	10,620	4,641	821	49	1,433	2,462	118	594
10-19.....	86	17,499	7,845	1,054	101	1,870	3,867	418	801
20-49.....	93	37,172	16,169	2,458	388	3,982	9,053	1,900	911
50-99.....	31	30,216	12,230	1,901	238	3,070	6,761	1,144	252
100-249.....	25	51,145	19,169	3,780	479	5,146	12,449	2,322	345
250-499.....	22	83,843	30,812	7,049	1,097	9,854	23,650	6,118	1,281
500-999.....	13	...	...	...	...	...	...	...	...
1,000-2,499.....	2	89,315	56,360	11,205	1,573	15,860	39,057	7,310	2,044
Carbon County, total.....	15	11,365	7,154	834	69	1,370	3,436	349	168
0.....	2	...	...	...	...	...	...	...	...
1-4.....	2	864	309	5	...	8	7	...	...
5-9.....	1	...	...	...	...	...	...	...	...
10-19.....	3	1,239	775	45	13	72	145	55	...
20-49.....	5	...	...	...	...	...	...	...	...
100-249.....	1	9,262	6,070	784	56	1,290	3,284	294	168
500-999.....	1	...	...	...	...	...	...	...	...
Columbia County, total.....	18	8,325	3,892	564	37	964	2,008	191	145
0.....	6	1,128	510	...	...	...	...	...	1
1-4.....	4	105	91	10	...	15	19	...	...
5-9.....	2	...	...	...	...	...	...	...	...
10-19.....	1	...	...	...	...	...	...	...	...
20-49.....	1	7,092	3,291	554	37	949	1,989	191	144
50-99.....	3	...	...	...	...	...	...	...	...
250-499.....	1	...	...	...	...	...	...	...	...
Dauphin County, total.....	31	1,223	595	88	8	149	237	19	80
0.....	15	257	199	...	...	...	...	...	...
1-4.....	10	292	126	22	2	37	46	5	70
5-9.....	2	...	...	...	...	...	...	...	...
10-19.....	3	...	...	...	...	...	...	...	...
20-49.....	1	674	270	66	6	112	191	14	10
Lackawanna County, total.....	151	52,203	23,949	4,421	897	5,726	13,815	4,257	635
0.....	36	2,528	602	...	...	...	...	...	...
1-4.....	35	542	407	92	...	124	214	...	4
5-9.....	27	1,008	786	151	16	221	456	32	35
10-19.....	12	1,318	830	153	11	228	526	69	8
20-49.....	22	8,526	3,683	588	177	914	2,055	901	174
50-99.....	8	5,972	2,800	462	85	682	1,544	401	5
100-249.....	6	...	...	...	...	...	...	...	...
250-499.....	3	...	...	...	...	...	...	...	...
500-999.....	1	32,309	14,841	2,975	608	3,557	9,020	2,854	409
1,000-2,499.....	1	...	...	...	...	...	...	...	...
Luzerne County, total.....	131	139,052	70,308	12,763	2,056	19,791	46,725	9,906	3,289
0.....	16	7,257	2,043	...	...	...	...	...	...
1-4.....	20	235	108	47	4	62	116	11	5
5-9.....	16	795	653	102	5	154	371	8	62
10-19.....	18	2,464	1,496	224	23	390	941	112	538
20-49.....	22	8,927	3,763	575	65	886	2,188	342	273
50-99.....	12	8,583	4,675	705	100	1,078	2,468	497	18
100-249.....	7	13,290	5,817	1,087	65	1,647	3,854	379	49
250-499.....	12	35,789	15,114	3,722	456	5,822	13,257	2,479	548
500-999.....	7	...	...	...	...	...	...	...	...
1,000-2,499.....	1	61,712	36,639	6,301	1,338	9,752	23,530	6,078	1,796
Northumberland County, total.....	496	45,117	16,500	2,998	218	3,959	9,118	1,613	338
0.....	375	8,306	4,746	...	...	2	4	...	46
1-4.....	68	1,865	1,097	177	3	276	447	3	102
5-9.....	30	3,413	1,007	182	10	335	496	31	68
10-19.....	11	2,642	1,094	136	4	267	519	10	54
20-49.....	7	3,286	1,076	179	18	283	618	99	65
100-249.....	2	...	...	...	...	...	...	...	...
250-499.....	1	25,605	7,480	2,324	183	2,796	7,034	1,470	3
500-999.....	2	...	...	...	...	...	...	...	...
Schuylkill County, total.....	436	106,710	43,415	7,009	651	9,798	22,841	3,015	2,096
0.....	203	19,874	8,514	...	...	...	2	...	435
1-4.....	87	2,408	1,074	195	12	312	511	43	62
5-9.....	53	4,973	1,906	333	14	608	999	40	424
10-19.....	36	9,225	3,391	433	45	812	1,556	162	180
20-49.....	34	14,676	6,370	922	98	1,577	3,449	453	239
50-99.....	7	10,534	3,152	476	36	768	1,810	156	18
100-249.....	9	28,625	7,839	1,519	339	2,109	5,199	1,539	124
250-499.....	5	...	...	...	...	...	...	...	...
500-999.....	2	16,395	11,169	3,131	107	3,612	9,315	622	614

CLASSIFIED BY EMPLOYMENT SIZE, BY INDUSTRY AND COUNTY: 1954—Continued
(For explanation of column captions, see INTRODUCTION)

[illegible]

Table C.—MONTHLY EMPLOYMENT IN THE ANTHRACITE MINING INDUSTRIES IN THE UNITED STATES (PENNSYLVANIA), BY COUNTY AND BY TYPE OF OPERATION: 1954

Industry, county, and type of operation	Average employment for the year ¹	Number of employees by month											
		January	February	March	April	May	June	July	August	September	October	November	December
Anthracite mining industries, total.....	37,462	48,918	47,350	45,096	41,293	34,190	32,951	31,566	32,168	31,803	33,886	34,681	35,217
ANTHRACITE MINING INDUSTRY													
Pennsylvania, total.....	32,769	43,381	41,829	39,715	36,134	30,271	28,932	27,300	27,893	27,484	29,296	30,073	30,562
County													
Carbon.....	903	1,800	1,637	1,573	366	232	226	222	318	325	1,335	1,372	1,388
Columbia.....	601	865	871	643	481	484	480	545	556	572	571	566	571
Dauphin.....	96	85	86	105	113	103	98	99	99	84	98	97	84
Lackawanna.....	5,318	6,954	7,012	6,641	6,270	4,889	4,313	3,820	4,734	4,183	4,901	4,984	4,982
Luzerne.....	14,819	18,762	17,239	16,191	15,659	14,931	14,170	13,984	13,339	13,329	13,358	13,469	13,444
Northumberland.....	3,216	3,682	3,705	3,701	3,370	3,063	3,049	2,960	2,952	3,003	3,035	3,022	2,979
Schuylkill.....	7,660	11,067	11,109	10,681	9,675	6,415	6,450	5,549	5,771	5,840	5,855	6,410	6,963
Sullivan.....	34	56	57	56	56	4	2	2	11	34	38	46	47
Berks, Lancaster, Lebanon, Northampton, Snyder, and Wayne.....	122	110	113	124	144	150	144	119	113	114	105	107	104
Type of Operation													
Producing establishments, total.....	32,716	43,325	41,774	39,671	36,091	30,226	28,887	27,255	27,848	27,438	29,238	29,999	30,489
Underground mines:													
Without preparation plant.....	11,915	15,407	15,161	13,889	12,799	11,739	11,054	9,884	10,358	9,991	10,757	10,891	10,811
With preparation plant....	4,522	5,717	5,761	5,801	5,252	4,104	4,137	3,971	4,001	3,888	3,864	3,863	3,874
Strip pits:													
Without preparation plant.....	299	374	400	320	273	263	261	283	279	288	280	259	292
With preparation plant....	850	862	850	814	780	840	847	847	853	879	890	879	848
Combined underground mines and strip pits:													
Without preparation plant.....	1,680	1,816	1,929	1,854	1,750	1,741	1,655	1,638	1,639	1,669	1,475	1,506	1,473
With preparation plant....	3,965	6,973	5,923	5,687	3,679	3,284	2,726	2,660	2,591	2,604	3,747	3,847	3,874
Culm banks:													
Without preparation plant.....	21	22	22	23	20	22	13	16	17	19	32	20	19
With preparation plant....	1,003	1,028	987	953	1,022	994	1,014	999	1,008	1,011	1,021	992	952
Combined strip pits and culm banks (without and with preparation plant).....	818	880	875	872	820	767	803	766	796	802	809	755	821
Combined underground mines, strip pits, and culm banks (without and with preparation plant).....	5,640	8,116	7,752	7,326	7,595	4,377	4,305	4,204	4,411	4,370	4,465	5,090	5,637
Breakers only.....	1,796	1,957	1,938	1,915	1,857	1,839	1,825	1,769	1,687	1,729	1,721	1,725	1,726
Washeries only.....	19	16	16	16	15	15	15	16	16	16	24	22	24
Dredges.....	188	157	160	201	229	241	232	203	192	172	153	150	138
Nonproducing establishments.....	53	56	55	44	43	45	45	45	45	46	58	74	73
ANTHRACITE STRIPPING CONTRACT SERVICES													
Pennsylvania, total ²	4,556	5,347	5,342	5,219	5,011	3,792	3,911	4,132	4,153	4,190	4,457	4,493	4,561
County													
Carbon ²	276	481	442	436	443	103	81	80	84	112	263	332	432
Lackawanna ²	331	366	367	353	327	318	312	297	293	306	333	340	320
Luzerne.....	961	901	954	983	921	864	959	1,015	1,036	1,002	986	966	950
Northumberland ²	388	474	491	431	421	352	371	342	347	343	357	355	374
Schuylkill.....	2,638	3,197	3,167	3,073	2,935	2,185	2,212	2,430	2,420	2,456	2,542	2,522	2,516
Kind of work performed													
Strip-pit mining and removal of overburden.....	3,695	4,403	4,354	4,225	4,100	3,012	3,086	3,292	3,314	3,415	3,612	3,665	3,804
Strip-pit mining and loading culm-bank material.....	474	476	534	537	471	455	476	468	455	444	447	446	479
Loading culm-bank material only.....	387	468	454	457	440	325	349	372	384	331	398	382	278
ANTHRACITE CONTRACT SERVICES EXCEPT STRIPPING													
Pennsylvania, total ³	137	190	179	162	148	127	108	134	122	129	133	115	94
County													
Luzerne.....	20	41	23	23	23	20	15	17	17	19	17	15	13
Schuylkill.....	79	77	77	82	89	77	69	85	78	81	92	78	50
Carbon, Lackawanna, and Northumberland.....	39	72	79	57	36	30	24	32	27	29	24	22	31
Kind of work performed													
Shaft sinking, mine tunneling, and rock work.....	100	154	141	121	110	96	76	103	84	96	96	79	63
Drilling, conveyor-belt transportation, back-filling....	37	36	38	41	38	31	32	31	38	33	37	36	31

¹Represents the sum of the average employment figures for the year, as shown in the separate establishment reports. These are the averages shown in other tables in this report. Because of roundings, the sum of such average figures may differ slightly from the average of the January to December totals shown above.

²See table 3B, footnote 5.

³See table 3C, footnote 3.

Table 8.—GENERAL STATISTICS FOR PRODUCING ANTHRACITE UNDERGROUND MINES WITHOUT PREPARATION PLANTS, CLASSIFIED BY OUTPUT PER MAN-HOUR: 1954

(For explanation of column captions, see INTRODUCTION)

Output per man-hour ¹ (short tons of raw anthracite)	Number of estab- lish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expendi- tures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
All underground mines without preparation plant, total.....	956	68,192	56,206	11,381	534	15,980	37,418	2,527	1,271
Less than 0.20.....	1	1,508	1,357	364	11	673	1,320	86	37
0.20-0.39.....	12								
0.40-0.59.....	52	24,515	20,094	5,536	283	7,482	18,019	1,347	357
0.60-0.79.....	54	11,349	9,223	2,403	85	3,107	7,789	279	392
0.80-0.99.....	32	6,331	5,131	1,071	46	1,513	3,652	248	54
1.00-1.19.....	13	7,327	6,420	791	66	1,274	2,952	390	24
1.20-1.39.....	2	1,586	1,377	229	17	304	738	88	...
1.40-1.59.....	1								
1.60-1.70.....	2								
Unclassified ²	787	15,576	12,604	987	26	1,627	2,948	89	407

¹Represents short tons of raw anthracite produced per man-hour of production, development, and related workers.²Represents principally reports indicating that a substantial proportion of the work was performed by proprietors or partners regularly performing production or development work. Since man-hours for these proprietors are not included in the man-hours total reported, significant ratios of raw coal produced to man-hours could not be computed.

Table 9.—GENERAL STATISTICS FOR ANTHRACITE ESTABLISHMENTS IN THE UNITED STATES (PENNSYLVANIA), CLASSIFIED BY THE RATIO OF WAGES AND SALARIES TO VALUE ADDED IN MINING: 1954

(For explanation of column captions, see INTRODUCTION)

Ratio of wages and salaries to value added in mining	Number of estab- lish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expendi- tures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
Pennsylvania, total.....	1,291	365,536	167,090	28,823	13,946	42,061	98,678	19,392	6,953
Less than 0.30.....	73	21,426	9,644	692	45	1,026	2,210	160	930
0.30-0.39.....	54	13,485	6,535	588	64	984	1,903	355	456
0.40-0.49.....	74	23,660	10,897	1,122	149	1,904	4,007	898	487
0.50-0.59.....	78	33,314	20,452	2,675	266	4,301	10,077	1,059	560
0.60-0.69.....	85	37,439	17,539	2,656	256	4,371	9,894	1,008	1,285
0.70-0.79.....	68	38,644	23,539	4,420	348	6,649	15,509	1,747	660
0.80-0.89.....	64	65,617	28,378	6,707	431	8,935	21,599	2,254	811
0.90-0.99.....	37	23,486	11,441	2,857	218	4,088	9,730	1,039	106
1.00 and over.....	106	68,286	21,763	7,106	612	9,803	23,749	2,689	1,177
Unclassified ²	652	40,179	16,902	...	...	...	...	...	481

¹Includes 1,557 employees at central offices, paid \$8,183,000 in salaries, which were not classified by ratio of wages and salaries to value added.²Represents establishments reporting less than \$500 for wages and salaries.

Table 10.—HORSEPOWER OF POWER EQUIPMENT USED IN THE ANTHRACITE MINING INDUSTRIES

(For explanation of column captions,

	Industry, county, and type of operation	Aggregate horsepower per production worker	Aggregate horsepower (prime movers and electric motors driven by purchased energy)				
			Total	Loading equipment	Transportation equipment		All other equipment
					Highway type	Other	
1	Anthracite mining industries, total.....	46	1,505,742	220,243	218,817	285,684	780,998
	ANTHRACITE INDUSTRY						
2	Pennsylvania, total ²	37	1,071,655	96,674	78,518	189,472	706,991
	County						
3	Carbon.....	100	83,428	30,638	1,520	8,484	42,786
4	Columbia.....	34	19,055	936	1,760	6,395	9,964
5	Dauphin.....	64	5,617	1,109	1,848	605	2,055
6	Lackawanna.....	36	160,364	13,228	6,835	36,809	103,492
7	Luzerne.....	36	456,483	31,088	9,926	84,822	330,647
8	Northumberland.....	31	92,723	3,363	10,533	12,872	65,955
9	Schuylkill.....	35	247,746	15,188	43,896	38,945	149,717
10	Sullivan.....	17	500	100	...	100	300
11	Berks, Lancaster, Lebanon, Northampton, and Snyder.....	49	5,739	1,024	2,200	440	2,075
	Type of Operation						
12	Producing establishments, total.....	35	1,009,712	96,579	78,458	180,588	654,087
	Underground mines:						
13	Without preparation plant.....	25	281,221	24,654	14,714	75,964	165,889
14	With preparation plant.....	41	150,338	4,363	2,480	45,897	97,598
	Strip pits:						
15	Without preparation plant.....	82	21,440	7,467	7,370	3,795	2,808
16	With preparation plant.....	84	62,351	5,083	14,116	5,110	38,042
	Combined underground mines and strip pits:						
17	Without preparation plant.....	27	42,582	3,538	595	7,940	30,509
18	With preparation plant.....	45	152,507	37,924	1,650	18,685	94,248
	Culm banks:						
19	Without preparation plant.....	99	1,980	635	400	...	945
20	With preparation plant.....	52	46,211	2,908	9,245	2,001	32,057
21	Combined strip pits and culm banks (without and with preparation plant)....	37	28,283	400	6,077	19	21,787
22	Combined underground mines, strip pits, and culm banks (without and with preparation plant).....	30	138,752	2,431	5,213	14,650	116,458
23	Breakers only.....	61	73,383	4,790	13,069	5,916	49,608
24	Washeries only.....	117	1,996	123	760	40	1,073
25	Dredges.....	49	8,668	2,263	2,769	571	3,065
26	Nonproducing establishments.....	1,549	61,943	95	60	8,884	52,904
	ANTHRACITE STRIPPING CONTRACT SERVICES						
27	Pennsylvania, total ²	106	432,662	123,294	140,159	96,092	73,117
	County						
28	Carbon ¹	226	55,167	11,170	36,075	3,099	4,823
29	Lackawanna ¹	98	29,739	12,261	7,348	4,800	5,330
30	Luzerne.....	98	83,673	31,199	15,315	23,798	13,361
31	Northumberland.....	146	50,496	16,986	8,265	14,524	10,721
32	Schuylkill.....	91	213,887	51,698	73,156	49,871	39,162
	Type of Operation						
33	Strip-pit mining and removal of overburden.....	107	351,229	98,775	110,426	82,645	59,383
34	Strip-pit mining and loading culm-bank material.....	103	45,462	15,814	16,508	8,810	4,330
35	Loading culm-bank material only.....	102	35,971	8,705	13,225	4,637	9,404
	ANTHRACITE CONTRACT SERVICES EXCEPT STRIPPING						
36	Pennsylvania ²	11	1,425	275	140	120	890
	County						
37	Luzerne.....	12	215	205	...	...	10
38	Schuylkill.....	12	910	50	140	120	600
	Type of Operation						
39	Shaft sinking, mine tunneling, and rock work.....	(D)	265	255	...	...	10
40	Drilling, conveyor-belt transportation, and back filling.....	(D)	1,160	20	140	120	880

D Withheld to avoid approximately disclosing figures of individual companies.

¹See table 3B, footnote 5.²See table 3C, footnote 3.

IN THE UNITED STATES (PENNSYLVANIA), BY COUNTY AND TYPE OF OPERATION: 1954

see INTRODUCTION)

Prime movers (horsepower)							Electric motors (horsepower)						
Total	By type of equipment				By use		Total	By type of equipment			By source of energy		
	Loading equipment	Transportation equipment		All other equipment	Driving generators	Not driving generators		Loading equipment	Trans- portation equip- ment	All other equipment	Driven by purchased energy	Driven by energy generated and used at same estab- lishment	
		Highway type	Other										
702,298	103,819	218,817	118,607	261,055	115,884	586,414	906,402	140,041	178,438	587,923	803,444	102,958	1
319,041	21,423	78,518	23,135	195,965	103,595	215,446	838,386	85,969	177,363	575,054	752,614	85,772	2
2,196	146	1,520	200	330	130	2,066	81,332	30,492	8,284	42,556	81,232	100	3
4,044	126	1,760	1,940	218	136	3,908	15,083	810	4,471	9,802	15,011	72	4
4,186	932	1,848	386	1,020	393	3,793	1,489	184	219	1,086	1,431	58	5
50,202	4,820	6,835	420	38,127	31,165	19,037	131,256	9,623	40,779	80,854	110,162	21,094	6
158,228	5,370	9,926	9,332	133,600	64,975	93,253	357,819	34,922	81,337	241,560	298,255	59,564	7
21,946	2,147	10,533	440	8,826	2,493	19,453	72,487	1,275	12,862	58,350	70,777	1,710	8
72,726	6,804	43,896	9,977	12,049	3,980	68,746	177,294	8,617	29,311	139,366	175,020	2,274	9
100	100	...	...	...	...	100	400	...	100	300	400	...	10
5,413	978	2,200	440	1,795	323	5,090	1,226	46	...	1,180	326	900	11
306,151	21,373	78,458	21,924	184,396	103,545	202,606	789,303	85,894	169,690	533,719	703,561	85,742	12
60,415	1,230	14,714	3,668	40,803	19,855	40,560	226,756	24,386	74,229	128,141	220,806	5,950	13
46,174	423	2,480	3,647	39,624	19,560	26,614	121,712	4,009	45,326	72,377	104,164	17,548	14
19,544	6,116	7,370	3,495	2,563	1,230	18,314	4,780	4,235	300	245	1,896	2,884	15
18,746	2,145	14,116	1,885	600	175	18,571	43,810	2,938	3,225	37,647	43,605	205	16
5,521	890	595	842	3,194	200	5,321	38,127	2,804	7,698	27,625	37,061	1,066	17
21,700	1,480	1,650	1,272	17,298	1,825	19,875	131,107	36,484	17,613	77,010	130,807	300	18
1,690	635	400	...	655	50	1,640	317	...	...	317	290	27	19
18,273	2,542	9,245	865	5,621	515	17,758	28,483	366	1,136	26,981	27,938	545	20
6,837	400	6,077	...	360	...	6,837	21,446	...	19	21,427	21,446	...	21
79,964	964	5,213	5,029	68,758	58,170	21,794	114,483	8,018	14,838	91,627	58,788	55,695	22
18,099	2,430	13,069	610	1,990	850	17,249	55,454	2,360	5,306	47,788	55,284	170	23
1,238	123	760	40	315	23	1,215	1,108	...	...	1,108	758	350	24
7,950	1,995	2,769	571	2,615	1,092	6,858	1,720	294	...	1,426	718	1,002	25
12,890	50	60	1,211	11,569	50	12,840	49,083	75	7,673	41,335	49,053	30	26
382,517	82,396	140,159	95,472	64,490	12,289	370,228	67,331	53,797	955	12,579	50,145	17,186	27
52,147	8,770	36,075	3,099	4,203	...	52,147	3,020	2,400	...	620	3,020	...	28
28,409	11,021	7,348	4,800	5,240	1,100	27,309	2,017	1,712	200	105	1,330	687	29
63,173	13,537	15,315	23,798	10,523	2,500	60,673	22,520	19,682	...	2,838	20,500	2,020	30
39,785	8,317	8,265	13,904	9,299	3,000	36,785	14,511	11,669	620	2,222	10,711	3,800	31
199,003	40,751	73,156	49,871	35,225	5,689	193,314	25,563	18,354	135	7,074	14,884	10,679	32
306,389	61,742	110,426	82,645	51,576	10,939	295,450	60,967	48,873	335	11,759	44,840	16,127	33
41,487	12,079	16,508	8,690	4,210	1,100	40,387	4,953	4,713	120	120	3,975	978	34
34,641	8,575	13,225	4,137	8,704	250	34,391	1,411	211	500	700	1,330	81	35
740	...	140	...	600	...	740	685	275	120	290	685	...	36
...	...	...	...	...	...	...	215	205	...	10	215	...	37
740	...	140	...	600	...	740	170	50	120	...	170	...	38
...	...	...	...	...	...	...	265	255	...	10	265	...	39
740	...	140	...	600	...	...	420	20	120	280	420	...	40

Table 11.—NUMBER OF POWER LOADING MACHINES IN THE ANTHRACITE MINING INDUSTRIES IN THE UNITED STATES (PENNSYLVANIA): 1954 AND 1939

Type of loading equipment	Anthracite mining industries, total		Anthracite industry		Anthracite stripping contract services industry		Anthracite contract services, except stripping, industry (1954)
	1954	1939	1954	1939	1954	1939	
Surface loading equipment, total.....	946	470	301	168	624	302	21
By kind of power used:							
Steam.....	25	34	25	31	...	3	...
Electric and Diesel-electric.....	185	100	51	55	134	45	...
Diesel.....	539		113		420		6
Gasoline and other.....	197	336	112	82	70	254	15
Power shovels, total.....	349	168	97	51	252	117	...
By kind of power used:							
Steam.....	1	15	1	12	...	3	...
Electric and Diesel-electric.....	92	19	23	10	69	9	...
Diesel.....	191		45		146		...
Gasoline and other.....	65	134	28	29	37	105	...
By dipper or bucket capacity (cubic yards):							
Less than 3.....	258	154	80	(NA)	178	(NA)	...
3-5 inclusive.....	61	12	14	(NA)	47	(NA)	...
6-12 inclusive.....	30	2	3	(NA)	27	(NA)	...
Dragline excavators, total.....	331	190	63	30	268	160	...
By kind of power used:							
Steam.....	2	...	2	...	...	...	...
Electric and Diesel-electric.....	81	45	16	9	65	36	...
Diesel.....	226		36		190		...
Gasoline and other.....	22	145	9	21	13	124	...
By dipper or bucket capacity (cubic yards):							
Less than 3.....	184	156	40	(NA)	144	(NA)	...
3-5 inclusive.....	106	26	21	(NA)	85	(NA)	...
6-12 inclusive.....	37	8	2	(NA)	35	(NA)	...
More than 12.....	4	...	...		4		...
Scraper loaders, total.....	4	13	4	13	...	...	...
By kind of power used:							
Electric and Diesel-electric.....	1	10	1	10	...	...	...
Diesel.....	...		...		...	...	...
Gasoline and other.....	3	3	3	3	...	...	...
By rated horsepower:							
Less than 10.....	3	8	3	8	...	...	...
10-25 inclusive.....	1	3	1	3	...	...	...
26-100 inclusive.....	...	2	...	2	...	...	...
Clamshell and orange peel loaders, total.....	1	5	...	5	...	...	1
By kind of power used:							
Steam.....	...	3	...	3	...	...	...
Diesel.....	1		...		...	...	1
Gasoline and other.....	...	2	...	2	...	...	...
Cranes and hoists (Diesel, gasoline, and other).....	...	4	...	...	...	4	...
Dredges, total.....	71	54	68	54	3	...	...
By kind of power used:							
Steam.....	21	15	21	15	...	...	...
Electric and Diesel-electric.....	...	19	...	19	...	...	...
Diesel.....	6		3		3	...	...
Gasoline and other.....	44	20	44	20	...	...	...
Bulldozers, total.....	118	15	23	3	90	12	5
By kind of power used:							
Electric and Diesel-electric.....	3	...	3	...	...	...	...
Diesel.....	98		16		77		5
Gasoline and other.....	17	15	4	3	13	12	...
All other types of equipment.....	72	21	246	212	311	39	15
By kind of power used:							
Steam.....	1	1	1	1	...	...	...
Electric and Diesel-electric.....	8	7	8	7	...	...	...
Diesel.....	17		13		4		...
Gasoline and other.....	46	13	24	4	7	9	15

See footnotes at end of table.

Table 11.—NUMBER OF POWER LOADING MACHINES IN THE ANTHRACITE MINING INDUSTRIES IN THE UNITED STATES (PENNSYLVANIA): 1954 AND 1939—Continued

Type of loading equipment	Anthracite mining industries, total		Anthracite industry		Anthracite stripping contract services industry		Anthracite contract services, except stripping, industry ¹ (1954)
	1954	1939	1954	1939	1954	1939	
Underground loading equipment:							
Number of units, total.....	2,682	2,667	2,656	2,667	...	...	26
By kind of power used:							
Electric and Diesel-electric.....	2,182	2,470	2,172	2,470	...	...	10
Compressed air.....	500	197	484	197	...	...	16
Net coal loaded.....1,000 short tons..	7,078	(NA)	7,078	(NA)	...	...	...
Coal mobile loading machines:							
Number of units, total.....	62	7	62	7	...	...	...
By kind of power used:							
Electric and Diesel-electric.....	54	7	54	7	...	...	...
Compressed air.....	8	...	8	...	...	...	...
Net coal loaded.....1,000 short tons..	434	(NA)	434	(NA)	...	...	...
Pit-car loaders:							
Number of units, total.....	20	28	20	28	...	...	...
By kind of power used:							
Electric and Diesel-electric.....	20	18	20	18	...	...	...
Compressed air.....	...	10	...	10	...	...	...
Net coal loaded.....1,000 short tons..	28	(NA)	28	(NA)	...	...	...
Scraper loaders (including slushers):							
Number of units, total.....	367	572	358	572	...	...	9
By kind of power used:							
Electric and Diesel-electric.....	354	564	353	564	...	...	1
Compressed air.....	13	8	5	8	...	...	8
By rated horsepower:							
Less than 10.....	159	202	151	202	...	...	8
10-25 inclusive.....	180	354	179	354	...	...	1
26-100 inclusive.....	27	16	27	16	...	...	...
More than 100.....	1	...	1	...	...	...	...
Net coal loaded.....1,000 short tons..	952	(NA)	952	(NA)	...	...	...
Duckbills and self-loading conveyors:							
Number of units, total.....	14	40	14	40	...	...	...
By kind of power used:							
Electric and Diesel-electric.....	14	34	14	34	...	...	...
Compressed air.....	...	6	...	6	...	...	...
Net coal loaded.....1,000 short tons..	30	(NA)	30	(NA)	...	...	...
Hand-loaded face conveyors:							
Number of units, total.....	2,202	2,020	2,202	2,020	...	...	...
By kind of power used:							
Electric and Diesel-electric.....	1,731	1,847	1,731	1,847	...	...	...
Compressed air.....	471	173	471	173	...	...	...
Net coal loaded.....1,000 short tons..	5,634	(NA)	5,634	(NA)	...	...	...
All other types of machines:							
Number of units, total.....	417	...	...	...	...	...	417
By kind of power used:							
Electric and Diesel-electric.....	9	...	...	...	...	...	9
Compressed air.....	8	...	...	...	...	...	8
Net coal loaded.....1,000 short tons..	...	...	...	...	...	...	...

NA Not available.

¹Separate data for this industry are not available for 1939.²For 1954, represents 35 loaders and 11 unidentified machines; for 1939, represents 5 conveyor lines, 5 electrically-driven ladder dredges, and 2 loading conveyors.³For 1954, represents 4 mobile cranes, 5 loaders and loading conveyors, and 2 unidentified machines; for 1939, represents 7 tractors, 1 tractor-drawn scraper, and 1 belt loader.⁴For 1954, represents 1 rock loader, 2 airloaders, 8 mucking shovels, and 6 unidentified machines.

MINERAL INDUSTRIES--INDUSTRY STATISTICS

Table 12.—MATERIALS, SUPPLIES, FUELS, AND ELECTRIC ENERGY USED IN THE ANTHRACITE

(For explanation of line

Item	Anthracite mining industries, total		Anthracite industry					
			Pennsylvania, total		Carbon		Columbia	
	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
1 Raw coal for preparation, total.....1,000 short tons..	246,086	xxx	46,086	xxx	2,331	xxx	735	xxx
2 Mined and prepared at same establishment.....do....	21,367	xxx	21,367	xxx	(D)	xxx	(D)	xxx
3 Received from other establishments of same company, purchased, or received for preparation on a custom basis.....do....	24,719	119,848	24,719	119,848	(D)	1,530	(D)	3,402
4 Supplies used, total.....	xxx	429,027	xxx	20,224	xxx	xxx	xxx	xxx
5 Explosives.....1,000 pounds..	16,987	2,815	16,987	2,815	629	98	282	48
6 Steel mill shapes and forms.....short tons..	14,769	1,967	14,769	1,967	263	35	108	19
7 Round and hewn wood products and stumpage.....	xxx	1,741	xxx	1,741	xxx	62	xxx	51
8 All other supplies.....	xxx	13,701	xxx	13,701	xxx	(D)	xxx	(D)
9 Fuels used, total.....million kwh equivalent..	6,467	xxx	5,881	xxx	108	xxx	47	xxx
10 Anthracite produced for use at same establishment...1,000 short tons..	595	xxx	595	xxx	14	xxx	5	xxx
11 Purchased fuel, total.....million kwh equivalent..	2,044	3,932	1,458	2,038	4	19	9	28
12 Coal.....1,000 short tons..	143	590	141	574	...	...	...	...
13 Distillate fuel oil.....1,000 barrels..	311	1,612	95	498	(6)	2	4	18
14 Residual fuel oil.....do....	23	97	6	22	...	...	...	...
15 Gas (natural and manufactured).....million cu.ft..	1	2	1	...	...	...	...	...
16 Other fuels.....\$1,000..	xxx	1,631	xxx	944	xxx	17	xxx	10
17 Electric energy purchased.....million kwh..	731	8,787	708	8,397	34	421	16	217
18 Electric energy generated and used.....do....	109	xxx	94	xxx	(6)	xxx	(6)	xxx
Anthracite stripping contract services industry								
Pennsylvania, total				Carbon ¹				
Quantity		Cost (\$1,000)		Quantity		Cost (\$1,000)		
1 Raw coal for preparation, total.....1,000 short tons..	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
2 Mined and prepared at same establishment.....do....	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
3 Received from other establishments of same company, purchased, or received for preparation on a custom basis.....do....	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
4 Supplies used, total.....	xxx	8,651	xxx	519	xxx	xxx	xxx	xxx
5 Explosives.....1,000 pounds..	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
6 Steel mill shapes and forms.....short tons..	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
7 Round and hewn wood products and stumpage.....	xxx	(NA)	xxx	(NA)	xxx	(NA)	xxx	(NA)
8 All other supplies.....	xxx	(NA)	xxx	(NA)	xxx	(NA)	xxx	(NA)
9 Fuels used, total.....million kwh equivalent..	579	xxx	31	xxx	xxx	xxx	xxx	xxx
10 Anthracite produced for use at same establishment...1,000 short tons..	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
11 Purchased fuel, total.....million kwh equivalent..	579	1,868	31	95	xxx	xxx	xxx	xxx
12 Coal.....1,000 short tons..	2	16	...	...	...	...	...	...
13 Distillate fuel oil.....1,000 barrels..	212	1,090	13	57	...	...	...	...
14 Residual fuel oil.....do....	17	75	...	...	...	...	...	...
15 Gas (natural and manufactured).....million cu.ft..	(6)	2	(6)	2	...	...	...	...
16 Other fuels.....\$1,000..	xxx	685	xxx	36	xxx	xxx	xxx	xxx
17 Electric energy purchased.....million kwh..	23	390	2	18	...	xxx	xxx	xxx
18 Electric energy generated and used.....do....	15	xxx	...	xxx	...	xxx	xxx	xxx

xxx Not applicable.

D Withheld to avoid approximately disclosing figures for individual companies.

¹Includes data for one establishment, classified in the Anthracite contract services, except stripping, industries, for which county data could not be shown separately.²Total includes data for 3 establishments in Carbon, Lackawanna, and Northumberland Counties, the detailed data for which have been combined with data for establishments in the Anthracite stripping contract services industry, in the respective counties, in order to avoid approximately disclosing figures for individual companies.³Includes screened coal received for further processing, amounting to less than one percent of the total for Luzerne and Northumberland Counties and to less than 5 percent for Schuylkill County.⁴Total includes, but detailed figures exclude, cost of supplies used by establishments in the Anthracite stripping contract services and Anthracite contract services, except stripping, industries. Information on such details was not obtained.⁵Represents bituminous coal purchased. All other coal figures represent anthracite.⁶Less than one-half of the specified unit of measure.

MINING INDUSTRIES IN THE UNITED STATES (PENNSYLVANIA), BY COUNTIES: 1954

captions, see INTRODUCTION)

Anthracite industry—Continued													
Dauphin		Lackawanna		Luzerne		Northumberland		Schuylkill		Sullivan		Berks, Lancaster, Lebanon, Northampton, Snyder, and Wayne	
Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
160 45	xxx xxx	4,634 786	xxx xxx	³ 15,369 8,626	xxx xxx	³ 6,720 2,078	xxx xxx	³ 16,087 7,654	xxx xxx	33 (D)	xxx xxx	17 ...	xxx xxx
115	499	3,848	21,142	³ 6,743	³ 39,172	³ 4,642	³ 19,658	³ 8,433	³ 35,326	(D)	18	17	114
xxx	55	xxx	2,326	xxx	8,136	xxx	2,683	xxx	6,011	xxx	13	xxx	...
42	8	2,186	390	6,613	1,063	1,661	297	5,561	909	...	2	...	...
...	...	1,884	101	9,895	1,331	939	159	1,665	320	...	...	15	2
xxx	11	xxx	330	xxx	594	xxx	319	xxx	374	xxx	...	xxx	...
xxx	36	xxx	1,505	xxx	5,148	xxx	1,908	xxx	4,408	xxx	(D)	xxx	(D)
18	xxx	1,617	xxx	3,261	xxx	200	xxx	610	xxx	(⁶)	xxx	20	xxx
...	xxx	123	xxx	385	xxx	15	xxx	53	xxx	...	xxx	...	xxx
18	45	703	537	399	250	89	330	216	767	...	3	20	59
⁵ 1	⁵ 7	90	412	50	153	...	...	(⁶)	2	...	...	...	...
2	9	7	41	10	55	17	92	47	241	(⁶)	2	8	38
...	...	1	4	...	...	...	...	5	17	...	...	(⁶)	1
...	...	...	...	...	...	1	...	...	...	...	...	...	...
xxx	29	xxx	80	xxx	42	xxx	238	xxx	507	xxx	1	xxx	20
(⁶)	13	93	1,054	298	3,001	63	884	203	2,791	(⁶)	4	1	12
(⁶)	xxx	17	xxx	66	xxx	1	xxx	2	xxx	...	xxx	8	xxx
Anthracite stripping contract services industry—Continued								Anthracite contract services except stripping industry					
Lackawanna ¹		Luzerne		Northumberland ¹		Schuylkill		Total ²		Luzerne		Schuylkill	
Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
xxx	878	xxx	2,194	xxx	790	xxx	4,300	xxx	152	xxx	46	xxx	76
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
xxx	(NA)	xxx	(NA)	xxx	(NA)	xxx	(NA)	xxx	(NA)	xxx	(NA)	xxx	(NA)
xxx	(NA)	xxx	(NA)	xxx	(NA)	xxx	(NA)	xxx	(NA)	xxx	(NA)	xxx	(NA)
55	xxx	124	xxx	50	xxx	319	xxx	7	xxx	...	xxx	7	xxx
xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
55	192	124	419	50	174	319	989	7	26	...	...	7	25
(⁶)	2	(⁶)	3	...	...	2	11	...	...	...	...	...	...
26	147	48	254	14	90	111	542	4	24	...	...	4	24
...	...	3	16	5	18	9	41	...	...	...	...	...	...
...
xxx	43	xxx	146	xxx	66	xxx	395	xxx	2	xxx	...	xxx	1
2	30	8	119	3	69	8	154	...	...	...	...	...	...
1	xxx	3	xxx	(⁶)	xxx	11	xxx	...	xxx	...	xxx	...	xxx

Table 13.—WATER USE IN THE ANTHRACITE MINING INDUSTRIES IN

(For explanation of column captions,

	Industry, county, and type of operation	Number of production and development workers	Value added in mining (\$1,000)	Water intake (except mine water)		
				Million gallons	Million gallons per production worker ¹	Gallons per dollar value added
1	Anthracite mining industries, total.....	33,026	196,835	14,527	0.44	74
	ANTHRACITE INDUSTRY					
2	Pennsylvania, total.....	28,823	167,090	14,519	0.50	87
	County					
3	Carbon.....	834	7,154	1,037	1.24	145
4	Columbia.....	564	3,892	71	0.13	18
5	Dauphin.....	88	595	324	3.68	545
6	Lackawanna.....	4,421	23,949	2,126	0.48	89
7	Luzerne.....	12,763	70,308	4,714	0.37	67
8	Northumberland.....	2,998	16,500	1,062	0.35	64
9	Schuylkill.....	7,009	43,415	3,159	0.45	73
10	Sullivan.....	30	123	1	0.03	8
11	Berks, Lancaster, Lebanon, Northampton, Snyder, and Wayne.....	116	1,154	2,025	17.46	1,755
	Type of Operation					
12	Producing establishments, total.....	28,783	167,380	14,468	0.50	86
	Underground mines:					
13	Mines without preparation plant.....	11,381	56,206	721	0.06	13
14	Mines with preparation plant.....	3,705	18,680	2,896	0.78	155
	Strip pits:					
15	Mines without preparation plant.....	263	11,480	...	...	...
16	Mines with preparation plant.....	743	5,465	605	0.81	111
	Combined underground mines and strip pits:					
17	Mines without preparation plant.....	1,606	7,823	49	0.03	6
18	Mines with preparation plant.....	3,412	20,486	1,070	0.31	52
	Culm banks:					
19	Mines without preparation plant.....	20	839	134	6.70	160
20	Mines with preparation plant.....	887	6,884	2,312	2.61	336
21	Combined strip pits and culm banks (without and with preparation plant).....	763	5,903	782	1.02	132
22	Combined underground mines, strip pits, and culm banks (without and with preparation plant).....	4,598	25,043	1,699	0.37	68
	Preparation plants only:					
23	Breakers only.....	1,212	6,955	1,509	1.25	217
24	Washeries only.....	17	136	274	16.12	2,015
25	Dredges.....	176	1,480	2,417	13.73	1,633
26	Nonproducing operations.....	40	(³)	51	1.28	(³)
	ANTHRACITE STRIPPING CONTRACT SERVICES					
27	Anthracite stripping contract services.....	4,074	29,079	8	(⁴)	(²)
	ANTHRACITE CONTRACT SERVICES, EXCEPT STRIPPING					
28	Anthracite contract services, except stripping.....	129	666	...	...	...

¹For computations of water intake per production worker, including mine water used, see tables 3 and 4.²Less than 0.5.³See table 4, footnote 3.⁴Less than 0.05 million.

11B-43

see INTRODUCTION)

[illegible]

Bituminous Coal and Lignite Mining

This report shows 1954 Census of Mineral Industries statistics for establishments classified in Major Group 12, Bituminous Coal and Lignite Mining. The separate industries included in this group are:

Industry 1211, Bituminous coal: Establishments primarily engaged in producing bituminous coal or in developing bituminous coal mines. Also included are subbituminous and semianthracite mining operations, including all coal sometimes classified as anthracite mined outside of the State of Pennsylvania. This industry includes mines and coal cleaning or sizing plants, whether or not operated in conjunction with the mines served.

Industry 1212, Lignite: Establishments primarily engaged in producing lignite or in developing lignite mines. (No lignite cleaning plants were reported for 1954 or for previous census years.)

Industry 1213, Bituminous coal and lignite mining contract services: Establishments primarily engaged in producing coal by stripping or auger methods for the account of others; in sinking mine shafts, driving mine tunnels, drilling, cementing, timbering, and performing other related services at the mines or on mine property on contract for bituminous coal and lignite establishments. Establishments primarily engaged in performing hauling services or in contract construction are not included in the Mining Division, according to the Standard Industrial Classification, and were not covered in the 1954 minerals census. Separate subindustry statistics are shown in this report for establishments primarily engaged in contract strip or auger mining.

The production of coke, coal chemicals, fuel briquets, and packaged fuel is classified in Major Group 29, Products of petroleum and coal; and the production of manufactured gas from coal in Industry 4925, Manufactured gas production and distribution.

The combined value of shipments of the industries in Major Group 12 amounted to \$2,068 million in the United States in 1954. Of this total, the bituminous coal industry had shipments of \$2,040 million, including \$262 million for raw coal sold or transferred to other establishments in the industry for mechanical cleaning or for resale as marketable raw coal, and net shipments of \$1,778 million. The lignite industry, with shipments of \$10 million, and the bituminous coal and lignite mining contract services industry, with receipts for services amounting to nearly \$18 million, accounted for the remainder. The value of shipments of the bituminous coal industry in Alaska was about \$7 million.

Net shipments of coal in the United States and Alaska amounted to 392 million tons, including 388 million tons of bituminous coal and 4 million tons of lignite. An additional 0.8 million tons of coal were mined and used at producing establishments for power or heat.

Net production and net shipments.—The figures for “net shipments” represent the sum of all marketable raw coal reported by mine operators for shipment direct from the mine or for use by employees and all mechanically cleaned coal reported for shipment by cleaning-plant operators. The figures exclude coal used at the producing mine or cleaning plant for power or heat. For individual States and counties, net shipments include any cleaned coal recovered from raw coal mined in another State or another county.

“Net production,” on the other hand, represents the net tonnage of coal mined, excluding washery and other refuse, and for individual States or counties represents the net marketable product from mines located within the boundaries of the designated area. At the mine level, net production includes the tonnage mined for shipment or use by employees as marketable raw coal, coal mined and cleaned at the same establishment, coal used at the establishment for power or heat, and the clean-coal equivalent of any raw coal mined for cleaning at other establishments. These figures, with the minor coverage exceptions noted later, are comparable with the annual production series published by the Bureau of Mines, United States Department of the Interior.

Coal transfers for cleaning.—The rapid expansion of mechanical cleaning facilities in the bituminous coal industry, especially at cleaning plants serving two or more mines of the same company or purchasing raw coal from others, increased the amount of duplication in gross bituminous coal statistics resulting from the transfer of the product of one establishment to another establishment within the same industry as a raw material for processing. The distinction between the total shipments of all establishments within the industry and the net shipments for the industry is more important, therefore, than in previous census years when such transfers were either negligible or nonexistent.

For the first time in a minerals census, data were obtained on transfer or sale of raw coal for mechanical cleaning. Of the 277.6 million tons of raw coal processed at bituminous coal cleaning plants in the United States, 56.1 million tons, or 20 percent, were reported received from other mines of the same company or purchased from others for mechanical cleaning. The value of this coal at the plant was \$204 million before processing. Mining establishments, on the other hand, reported a total of 55.5 million tons of raw coal, with a mine value of \$200 million, mined during 1954 for cleaning at other establishments. The total value of shipments of all establishments in the industry includes the value of the raw coal mined for sale or transfer to other establishments for cleaning as well as the value of the cleaning plant product, whereas “net shipments” figures include only the quantity and value of this cleaned product recovered therefrom, as reported by the cleaning plant.

Mechanical cleaning in this report refers to cleaning by wet-washing or pneumatic methods. It does not include such processing as crushing, screening, or sizing. The following table compares 1954 and 1939 statistics on this mechanical cleaning, for the United States and for States in which 10 million or more tons of marketable coal were produced in 1954.

The increase in mechanical cleaning is in part due to changing consumer requirements, but to a greater extent is the result of changing technology in mining methods. Greater mechanization at both underground and surface mines, while increasing labor productivity (from 0.72 to 1.20 tons per man-hour, including cleaning, between 1939 and 1954), has resulted in more impurities in the raw coal which must be removed before the product is marketable. In 1954 the average refuse content of all coal mechanically cleaned was 19 percent, compared with 11 percent in 1939. During this same period, the tonnage handled by mechanical loading machines rose from 31 percent to 84 percent of the total underground production, and the tonnage mined by stripping at surface mines increased from 36 million to 93 million for bituminous coal and 1 million to 4 million for lignite. The introduction of continuous mining machines underground and coal recovery augers at surface mines has contributed substantially to the increased productivity. This report contains the first census data on auger mining.

COMPARATIVE STATISTICS FOR MARKETABLE BITUMINOUS COAL AND COAL CLEANING IN THE UNITED STATES AND SELECTED STATES: 1954 and 1939

(Coal in millions of short tons)

State	Number of cleaning plants		Marketable coal ¹		Raw coal cleaned		Clean coal recovered		Percent of refuse		Clean coal as percent of marketable coal	
	1954	1939	1954	1939	1954	1939	1954	1939	1954	1939	1954	1939
United States.....	628	365	387.8	391.7	277.6	88.8	224.8	79.4	19	11	58	20
Pennsylvania ²	96	52	71.9	92.6	49.0	22.2	38.4	20.9	22	6	53	23
Ohio.....	26	7	32.5	20.3	17.5	3.9	13.8	3.4	21	14	42	17
Indiana.....	27	16	16.1	16.9	15.4	4.4	13.5	3.6	12	19	84	21
Illinois.....	69	45	42.0	46.8	42.3	16.4	35.0	14.1	17	14	83	30
Virginia.....	31	15	15.4	13.5	8.6	1.4	7.3	1.3	15	9	47	9
West Virginia.....	199	107	118.0	108.4	96.7	20.7	71.1	18.8	26	9	60	17
Kentucky.....	81	12	54.0	42.6	34.8	2.3	29.9	2.1	14	7	55	5
Alabama ²	51	52	10.5	12.0	13.5	11.3	8.4	9.9	38	12	80	83

¹Represents net coal shipped plus coal produced and used at the same establishment for power or heat.²Figures for 1954 exclude coal cleaning plants operated in conjunction with coke ovens. These are classified in manufactures.

Coal sizing and transfers for resale.--Coal sizing plants, whether or not operated in conjunction with the mines served, are classified in the bituminous coal industry, according to the Standard Industrial Classification. The statistics in this report include data for 85 such establishments operated independently of any mining activities. However, since sizing, crushing, or screening activities do not come within the definition of "mechanical" cleaning, coal processed and loaded at these establishments was regarded as coal purchased for resale. Purchases for resale were also reported by a number of companies engaged in mining or cleaning activities of their own.

Establishments engaging in these resale activities, through their rail, river, or other loading facilities, furnished a market outlet for many producers which had no such facilities of their own or were operating mines, or portions of mines, on lands owned or leased by the purchasing company. The Census coverage with respect to this purchase of coal for resale is probably incomplete, since the report form used did not provide such an inquiry. However, the form did include an inquiry to provide information on purchase for cleaning and reports for separately operated sizing plants and some other respondents made use of that inquiry to report purchases of raw coal, indicating that it was resold without mechanical cleaning. In this way, a total of 16.7 million tons, or 10 percent of the total raw coal mined for shipment without mechanical cleaning, was reported purchased by other establishments in the industry, at a cost of \$62 million. The resale value of this coal was \$76 million.

While the figures involved are comparatively small, the transfer of coal for resale created problems in tabulation and presentation. In order to eliminate duplication with reports from the producing establishments, the quantity figures for net shipments include only the tonnage of such coal reported by the producer while the value figures include the value reported by the producer plus the value added by resale.

Establishments engaged solely in buying and selling coal without any processing activities are not included in this report. Such establishments come within the scope of wholesale or retail trade rather than the Mining Division, according to the Standard Industrial Classification.

Contract work.--Contract stripping, although relatively small as a component of the total number of persons engaged in coal mining, presented a significant problem for the first time in conducting the 1954 census. Between 1939 and 1954 total payments for contract work by the bituminous coal and lignite industries increased from \$2 million to \$54 million, about one-fourth of this representing payments for contract strip and auger mining. Man-hours of strip and auger contractors provided nearly one-tenth of the total man-hours for such work in 1954.

The figures for bituminous coal and lignite mining contract services in this report cover stripping and auger mining services and, except for hauling, other activities which represent an integral part of mining operations. However, the receipts for contract work by the bituminous coal and lignite mining contract services industry were only about one-third as much as was paid for contract services by the bituminous coal and lignite industries. Only a small amount of additional contract work was done by operators of coal mine properties, presumably primarily for other coal mines. However, this probably represents nearly complete coverage, in terms of total receipts for services, of the types of contract service operations classified in the mineral industries.

Part of the difference was for hauling coal beyond the mine property. But it seems likely that a large part of the balance of contract payments, amounting to about \$36 million, represents payments made to companies engaged in contract construction of cleaning plants and other facilities at mine and cleaning plant properties. Capital expenditures for cleaning plant construction and major alterations and for other construction amounted to about \$34 million for establishments classified in the bituminous coal and lignite industries. Establishments reporting large capital expenditures of this type usually also reported substantial payments to contractors. The following table summarizes, for the United States and for selected States, the available data on payments and receipts for contract services of establishments included in the 1954 minerals census and the capital expenditures by mine or cleaning plant operators for cleaning plant construction and major alterations and other construction work.

PAYMENTS AND RECEIPTS FOR BITUMINOUS COAL AND LIGNITE MINING CONTRACT SERVICES AND AMOUNTS CAPITALIZED FOR CONSTRUCTION AT ESTABLISHMENTS IN THE BITUMINOUS COAL AND LIGNITE INDUSTRIES IN THE UNITED STATES AND SELECTED STATES: 1954

(Figures in thousands of dollars)

State	Cost of contract work as reported by mine or plant operators	Receipts for contract services reported in the bituminous coal and lignite mining industries			Excess of contract payments over receipts	Capital expenditures by operators for construction
		Total	By contractors	By operators		
United States.....	54,437	18,846	17,596	1,250	35,591	34,082
Pennsylvania.....	17,124	8,154	7,766	388	8,970	5,013
Ohio.....	3,990	1,065	882	183	2,925	937
West Virginia.....	18,743	4,913	4,543	370	13,830	15,335
Kentucky.....	3,742	1,431	1,409	22	2,311	2,837
Alabama.....	1,352	400	395	5	952	1,595
Montana, Wyoming, and Washington...	1,981	1,937	1,937	...	44	21

Secondary production.--General statistics for such items as employment, payrolls, supplies, horsepower, capital expenditures, and energy and water use do not include the activities of establishments classified in other industries which produced bituminous coal or lignite as secondary products. Conversely, the general statistics for the bituminous coal and lignite mining industries include the production of secondary products and the performance of services for others, since these general statistics are reported for each establishment as a whole. These factors should be taken into account in comparing product figures in Table 5 with the statistics for other items shown in this report. However, secondary products and services in each of the bituminous coal and lignite mining industries amounted to less than one percent of the total value of shipments for the respective industries. Also, bituminous coal produced in other industries amounted to less than one-tenth of one percent of the total, and all lignite was produced in the lignite industry.

Comparison of coverage with previous years.--Coverage of bituminous coal and lignite mines differed somewhat in 1954 from previous years. In 1954, all known establishments with one or more employees or proprietors performing manual labor were included if the operation was otherwise within the scope of the minerals census. For 1939, 1935, and 1929, establishments that produced less than 1,000 tons were excluded unless reported principal expenses or cost of buildings, machinery, and equipment for such operations amounted to \$2,500 or more. Statistics for 1919 include establishments that produced 1,000 tons or more of coal or whose cost of development work amounted to \$5,000 or more; and for 1909, represent mines that produced 1,000 tons or more of coal and mines that were in the course of development. No minimum was placed on size of operations included in earlier censuses.

Comparison with Bureau of Mines Statistics.--The report forms used by the Bureau of the Census for the bituminous coal and lignite industries, exclusive of the special form used for the bituminous coal and lignite mining contractors, also provided information required by the Bureau of Mines for its annual commodity, employment, and mechanical equipment statistics on bituminous coal and lignite. Some differences occur in the similar statistics compiled by the two agencies, arising principally from differences in methods followed and objectives sought in compiling and presenting the statistics. The reasons for such differences, to the extent that they pertain to statistics for the bituminous coal and lignite industries, are summarized below:

1. The Bureau of Mines excludes from its statistics mines producing less than 1,000 tons, whereas the Census excludes only establishments with value of shipments and with expenses for production, development, and maintenance work amounting to less than \$500. However, shipments by such small mines amounted to only 366 thousand tons, or one-tenth of one percent of total shipments.

2. The Bureau of Mines includes in its statistics data for State-owned or State-operated mines producing coal, with inmate labor, for use at State institutions. Government institutions in general are out of scope of the Census. Shipments from such mines in 1954 amounted to 142 thousand tons, or about one-twentieth of one percent of total shipments, and are included in Table 5 only in this report.

3. The Bureau of Mines also includes in its statistics coal produced as a secondary product at mines classified in other

industries. As stated above, the general statistics in this report are for establishments classified in the bituminous coal and lignite industries. Shipments of bituminous coal from establishments classified in other industries amounted to 171 thousand tons in 1954, and are shown only in Table 5 of this report. Another 9 thousand tons of coal mined in other industries were used at the producing establishments for power or heat.

4. The statistics on mechanical cleaning presented in this report exclude figures for coal cleaned at preparation plants operated in conjunction with coke ovens, which are classified in manufacturing. Since the coal leaves the bituminous coal industry before it is cleaned, the census statistics include it as raw coal mined for shipment rather than as raw coal mined for cleaning. The Bureau of Mines includes data for these consumer-operated plants in their statistics on mechanical cleaning. As a result, their figures for total raw coal cleaned are approximately 10 million tons higher than the Census figures, with substantial differences in the States of Pennsylvania, Alabama, and Colorado.

5. Differences in the statistics by State also arise from the fact that the quantity and value of cleaned coal prepared in one State from raw coal mined in another, as well as the related employment and equipment data, are assigned by the Bureau of Mines to the State in which the mine is located, the cleaning plant being assigned to the State from which the major portion of the coal was received; whereas the Bureau of the Census includes all data for the cleaning plant in the statistics for the State in which the plant is located.

6. The usual average employment figures in the statistics of the Bureau of the Census represent a 12-month average of paid employees as of the 15th of each month, including periods when the establishment was inactive and only watchmen, maintenance men, and repairmen were on duty, whereas the employment figures in the statistics of the Bureau of Mines represent the average number of men working on days when the mine was active for production. Bureau of Mines type data were also obtained in the Census report and these statistics for the number of production and development workers on active days are presented in Table 3B of this report. Only these figures indicate the extent of comparability between Census and Bureau of Mines statistics, the difference being less than one-fourth of one percent. However, in the bituminous coal and lignite industries, the average number of production and development workers on active days was 226,808, or 14 percent higher than the 12-month average of 198,639. Employees of contractors working at strip-pit and auger mines are not included in the Census active-day average, as information was not obtained on the number of days and man-shifts worked by such employees. Estimates for such contractors were included in Bureau of Mines statistics and these account for most of the difference between the figures of the two agencies.

In previous years, the employment statistics of the Bureau of Mines have included data for owners, operators, or partners performing manual labor at the mines. In 1954, the number of proprietors and firm members performing manual labor was 5,369.

7. The Bureau of Mines includes in its statistics equipment in use during the time a mine was in operation; the statistics in the Census report represent equipment reported by producers as being in use or available for use at the end of the year.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 1.—COMPARATIVE STATISTICS FOR THE BITUMINOUS COAL AND LIGNITE MINING INDUSTRIES IN THE
(For explanation of line captions and for statement on the minimum size of

Item	Bituminous coal and lignite mining industries, total		1954			1939		
	1954	1939	Bitumi- nous coal and lignite indus- tries, total	Bitumi- nous coal industry	Lignite industry	Bitumi- nous coal and lignite indus- tries, total	Bitumi- nous coal industry	Lignite industry
1 Number of operating companies.....	6,104	5,182	5,966	5,913	56	5,150	5,021	130
2 Number of establishments.....	6,855	(NA)	6,703	6,643	60	(NA)	(NA)	(NA)
3 Number of mines.....	6,844	5,847	6,844	6,784	60	5,847	5,716	131
4 Number of mechanical cleaning plants.....	628	365	628	628	...	365	365	...
5 Net production of bituminous coal and lignite, total ⁴.....1,000 short tons..	391,109	394,707	391,109	386,864	4,245	394,707	391,729	2,978
6 From underground operations.....do....	288,980	356,984	288,980	288,932	48	356,984	355,426	1,558
7 From strip-pit operations.....do....	97,661	37,723	97,661	93,464	4,197	37,723	36,303	1,420
8 From auger operations.....do....	4,468	...	4,468	4,468	...	...	...	...
9 Net shipments of bituminous coal and lignite ⁴.....do....	391,244	(NA)	391,244	387,006	4,238	(NA)	(NA)	(NA)
10 Value of shipments, total ⁴.....\$1,000..	2,068,183	(NA)	2,050,587	2,040,200	10,387	(NA)	(NA)	(NA)
11 Raw coal sold or transferred for mechanical cleaning or for resale in the bituminous coal industry.....do....	261,864	(NA)	261,864	261,864	...	...	...	...
12 Net shipments, total ⁴.....do....	1,806,319	731,427	1,788,723	1,778,336	10,387	730,815	727,358	3,457
13 Coal net shipments ⁴.....do....	1,784,260	727,931	1,784,260	1,773,930	10,330	727,931	724,476	3,455
14 Other products and services.....do....	22,059	3,496	4,463	4,406	57	2,884	2,882	2
15 Value added in mining.....do....	1,418,384	610,674	1,405,867	1,396,774	9,093	610,197	607,318	2,879
16 Number of persons engaged, total.....	226,593	395,454	224,983	224,352	631	395,191	393,452	1,739
17 Production and development workers.....	199,655	370,944	198,324	197,819	505	370,745	369,265	1,480
18 All other employees.....	19,178	19,834	19,063	18,994	69	19,805	19,690	115
19 Proprietors and firm members.....	7,760	4,676	7,596	7,539	57	4,641	4,497	144
20 Performing manual labor.....	5,485	3,409	5,367	5,324	43	3,389	3,271	118
21 Man-hours worked by production and develop- ment workers, total.....1,000..	325,769	545,702	323,311	322,410	901	545,337	542,310	3,027
22 Underground (mining and development).....do....	233,868	114,368,53	233,868	233,827	41	114,368,53	114,355,059	111,794
23 Strip-pit (stripping overburden and mining).....do....	27,494	1113,190	25,544	24,999	545	1113,190	1112,604	11586
24 Auger mining.....do....	1,398	...	1,193	1,193	...	...	...	...
25 Surface (including tipples, cleaning plants, shops and yards, and auxiliary units).....do....	63,009	1174,579	62,706	62,391	315	1174,579	1174,007	11572
26 Net coal produced per man-hour.....short tons..	1.20	0.72	1.21	1.20	4.71	0.72	0.72	0.98
27 Principal expenses designated below, total.....\$1,000..	1,521,275	13597,429	1,510,269	1,506,355	3,914	13596,968	13594,787	132,181
28 Wages of production and development workers.....do....	764,863	432,188	759,352	757,175	2,177	431,948	430,564	1,384
29 Salaries of all other employees.....do....	109,442	44,488	108,885	108,474	411	44,402	44,183	219
30 Raw coal received for mechanical cleaning.....do....	203,953	(NA)	203,953	203,953	...	(NA)	(NA)	(NA)
31 Raw coal received for resale without mechanical cleaning.....do....	62,065	(NA)	62,065	62,065	...	(NA)	(NA)	(NA)
32 Supplies.....do....	260,851	88,516	257,860	257,233	627	88,435	88,093	342
33 Fuel ¹⁵.....do....	17,111	5,432	15,951	15,712	239	5,379	5,299	80
34 Purchased electric energy.....do....	47,802	24,895	47,766	47,512	254	24,894	24,749	145
35 Contract work.....do....	55,188	1,910	54,437	54,231	206	1,910	1,899	11
36 Purchased machinery installed.....do....	121,640	(NA)	119,088	118,481	607	(NA)	(NA)	(NA)
37 Capital expenditures, total.....do....	118,811	(NA)	116,400	115,761	639	(NA)	(NA)	(NA)
38 Development and exploration of mineral property.....do....	3,601	(NA)	3,601	3,586	15	(NA)	(NA)	(NA)
39 Cleaning plant construction and major alterations.....do....	23,187	5,321	23,187	23,186	1	5,321	5,305	16
40 Other construction.....do....	10,981	(NA)	10,895	10,762	133	(NA)	(NA)	(NA)
41 New machinery and equipment.....do....	66,206	22,471	64,324	63,845	479	22,430	22,357	73
42 Used plant and equipment.....do....	14,836	2,967	14,393	14,382	11	2,967	2,947	20
43 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	6,331,527	3,373,172	6,167,484	6,092,894	74,590	3,364,731	3,343,679	21,052
44 Per production worker.....	32	9	31	31	148	9	9	14
45 Prime movers.....	2,656,250	18914,894	2,514,071	2,469,236	44,835	914,895	905,040	9,855
46 Electric motors driven by purchased energy.....	3,675,277	182,449,836	3,653,413	3,623,658	29,755	2,449,836	2,438,639	11,197

See footnotes at end of table.

BITUMINOUS COAL AND LIGNITE MINING

12A-5

UNITED STATES: 1954, 1939, 1935, 1929, 1919, 1909, 1902, 1889, 1880, 1870, 1860, 1850, AND 1840

establishments included for each year, see INTRODUCTION)

Bituminous coal and lignite industries											Bituminous coal and lignite mining contract services industry		
1935	1929	1919	1909 ¹	1902	1889	1880	1870	1860	1850	1840	1954	1939	
(NA) (NA) 6,311 (NA)	(NA) 4,995 5,639 (NA)	(NA) 6,662 8,308 134	3,544 4,395 6,071 (NA)	4,409 (NA) 5,652 (NA)	(NA) (NA) ³ 12,141 (NA)	(NA) ² 8,144 (NA) (NA)	(NA) 1,337 (NA) (NA)	(NA) 446 (NA) (NA)	(NA)	(NA)	152 152 xxx xxx	32 (NA) xxx xxx	1 2 3 4
372,254 (NA) (NA) ...	537,443 516,260 21,183 ...	460,426 454,651 5,775 ...	376,953 (NA) ...	260,217 (NA) ...	³ 95,685 (NA) ...	² 42,841 (NA) ...	19,279 (NA) ...	6,219 (NA) ...	2,308 (NA) ...	⁵ 1,108 (NA) ...	(⁶) xxx (⁶) (⁶)	(⁶) xxx (⁶) ...	5 6 7 8
(NA)	532,469 (NA)	(NA) 1,145,978 ...	(NA) 401,800 ...	(NA) 290,858 (⁸)	(NA) ³ 94,505 (⁸)	(NA) ² 53,467 (⁸)	(NA) 35,088 (⁸)	(NA) 8,374 (⁸)	(NA) 1,905 (⁸)	(NA)	xxx ⁷ 17,596 xxx	xxx 7612 xxx	9 10 11
658,475 657,561 914	966,694 965,707 987	1,145,978 1,144,323 1,655	401,800 401,556 244	290,858 290,858 (NA)	³ 94,505 ³ 94,505 (NA)	² 53,467 ² 53,467 (NA)	35,088 35,088 (NA)	8,374 8,374 (NA)	1,905 1,905		17,596 xxx 17,596	612 xxx 612	12 13 14
554,894	819,976	962,833	341,737	264,815	85,677	48,610	33,015	7,259			12,517	477	15
453,874 435,426 ¹⁰ 16,916 1,532	485,504 458,835 23,686 2,983	584,137 546,269 33,626 4,242	510,307 488,685 17,874 3,748	⁹ 295,051 280,638 14,413	175,356 169,104 6,252	109,014 109,014	41,733 41,733	11,360 11,360		3,834 3,834	1,610 1,331 115 164	263 199 29 35	16 17 18 19
		1,832	1,718								118	20	20
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)			2,458 ...	365	21 22
											1,950	(NA)	23
											205		24
											¹² 303 xxx		25 26
¹³ 538,789	¹³ 780,284	935,086	351,192	¹³ 222,037	¹³ 78,680	¹³ 38,018	¹³ 23,407	¹³ 5,262			11,006	¹³ 461	27
402,677 ¹⁰ 32,531	574,919 58,647	683,192 68,749	270,648 20,481	181,482 14,512	65,658 4,194	33,161	21,334	4,147	(NA)		5,511 557	240 86	28 29
(NA)	(NA)	...	...	(NA)	(NA)	(NA)	(NA)	(NA)		(NA)	xxx	xxx	30
73,705 4,796 25,080	106,560 7,529 30,739 1,890	143,084 25,901 11,291 2,869	50,141 7,516 2,406	24,799	8,006	¹⁴ 4,857 (NA) (NA)	2,073 ... (NA)	1,115 ...			xxx 2,991 1,160 36 ¹⁶ 751	xxx 81 53 1 (NA)	31 32 33 34 35
	34,947 (NA)	(NA)									2,552	(NA)	36
	16,928	31,298	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)			2,411	41	37
(NA)	(NA)	(NA)						(NA)			xxx 86 1,882 443	xxx 41	38 39 40 41 42
	3,125,103 7	2,157,946 4	1,230,635 3	521,165 2	(NA) (NA)	26,191 (¹⁷)	13,501 (¹⁷)				164,043 123	8,441 42	43 44
	722,154	1,385,753	1,205,341	518,806	¹⁹ 53,574	26,191	13,501				142,179	(NA)	45
	2,402,949	772,193	25,294	2,359	1,221	...	...				21,864		46

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 1.—COMPARATIVE STATISTICS FOR THE BITUMINOUS COAL AND LIGNITE MINING INDUSTRIES IN THE
(For explanation of line captions and for statement on the minimum size of

Item	Bituminous coal and lignite mining industries, total		1954			1939		
	1954	1939	Bitumi- nous coal and lignite indus- tries, total	Bitumi- nous coal industry	Lignite industry	Bitumi- nous coal and lignite indus- tries, total	Bitumi- nous coal industry	Lignite industry
1 Horsepower rating of electric motors driven by energy generated at the establishment.....	123,484	¹⁸ 621,606	117,208	116,686	522	621,606	621,157	449
2 Energy used.....million kwh equivalent..	15,351	22,587	14,998	14,854	144	22,587	22,339	248
3 Bituminous coal and lignite produced and used at same establishment.....1,000 short tons..	761	2,577	761	754	7	2,577	2,548	29
4 Fuels purchased:								
Bituminous coal and lignite.....do....	77	167	75	75	...	167	164	3
5 Distillate fuel oil.....1,000 barrels..	2,042		1,910	1,886	24			
6 Residual fuel oil.....do....	78		70	70	...			
7 Gas (natural and manu- factured).....million cu. ft..	507	103	507	507	...	103	103	...
8 Electric energy purchased.....million kwh..	3,628	1,958	3,626	3,601	25	1,958	1,951	7
9 Electric energy generated and used.....do....	132	616	132	132	...	616	616	...

xxx Not applicable.

NA Not available.

¹Adjusted to exclude data for coke manufacture at coal mines, to include anthracite production outside of Pennsylvania, and to transfer from wages to cost of supplies the cost of explosives, oil, and blacksmithing furnished to miners.

²Includes 5,148 mines, producing 917 thousand tons of coal valued at \$1,093 thousand, representing "irregular" operations for which no other data are available.

³Includes 9,920 "local mines and farmers' banks," producing about 2 percent of all coal, for which no data are available on labor, expenditures, or horsepower.

⁴"Net production" represents the clean-coal equivalent of all coal mined, based on the location of the mine, including coal produced and used at the same establishment for power or heat. Coal "net shipments" represents all marketable coal for shipment and includes marketable raw coal for shipment direct from the mine plus the cleaned coal for shipment from the cleaning plant. The figures exclude coal produced and used at the establishment for power or heat.

For 1954, the figures for net value of coal shipments represent the value of marketable raw coal for shipment, the value of mechanically-cleaned coal for shipment, and the value added by the resale of coal purchased and resold without mechanical cleaning. For 1929, the figures represent the value of coal sales; for 1939 and 1919, and probably for earlier years, the figures represent the value of production and include the value of coal produced and used at the same establishment for power or heat. For 1939 production figures adjusted to net shipments by excluding colliery fuel, see Table 5A.

The "net shipments" figures eliminate the duplication in "total" shipments which results from inclusion of the value of both the raw coal sold or transferred for mechanical cleaning or for resale and the clean coal recovered or the coal resold. Figures on "net production" are comparable with the annual production series published by the Bureau of Mines. They are used in this report to indicate the extent of comparability with the statistics of the Bureau of Mines and to provide information on coal production by method of mining, such as underground, strip-pit, or auger. Auger production in this report represents surface operations only. No information was obtained on underground auger mining.

BITUMINOUS COAL AND LIGNITE MINING

12A-7

UNITED STATES: 1954, 1939, 1935, 1929, 1919, 1909, 1902, 1889, 1880, 1870, 1860, 1850, AND 1840—Continued
establishments included for each year, see INTRODUCTION)

Bituminous coal and lignite industries											Bituminous coal and lignite mining contract services industry	
1935	1929	1919	1909 ¹	1902	1889	1880	1870	1860	1850	1840	1954	1939
}	429,970	707,491	329,538	65,972	1,221	}	(NA)	(NA)	(NA)	(NA)	6,276	(NA)
	37,766	(NA)	(NA)	(NA)	(NA)						353	(NA)
	}	4,524	11,127	9,378	5,002						xxx	xxx
		17	3	(NA)	(NA)						2	(NA)
	}	303	866	(NA)	(NA)						132	(NA)
		2,044	(NA)	(NA)	(NA)						8	(NA)
	465	(NA)	(NA)	(NA)	(NA)						...	(NA)
											2	(NA)
											...	(NA)

⁵Reported as "27,603,191 bushels raised" of bituminous coal and 3,803 tons of anthracite raised outside of Pennsylvania.

⁶Coal mined by contractors is included in the production shown for the bituminous coal and lignite industries. Establishments in these industries reported a total of 6,315 thousand tons of strip-pit coal and 610 thousand tons of auger-mined coal produced for them by contractors in 1954.

⁷Represents total receipts by contractors primarily engaged in performing services for establishments classified in the bituminous coal and lignite industries.

⁸There was probably no coal transferred for cleaning or for resale in these years.

⁹Figures for average employment were reduced to a 300-day basis for establishments which operated for a shorter period.

¹⁰Excludes data for persons engaged at central offices not located on the mine property.

¹¹Excludes man-hours worked on days when the mine was not active for production or development work. These are not available by department. For the "Bituminous coal and lignite mining, total," also excludes data for the Bituminous coal and lignite mining contract services industry.

¹²Represents man-hours spent in work other than strip-pit or auger mining, such as exploration, drilling, shaft sinking, and mine tunneling.

¹³Excludes data for items for which information is not available.

¹⁴Excludes the value of coal produced and used at the same establishment for power or heat.

¹⁵For 1954 excludes, but for 1939 and most earlier years includes, the value of coal produced and used at the same establishment for power or heat.

¹⁶Represents payments to subcontractors.

¹⁷Less than 0.5.

¹⁸Excludes data for the Bituminous coal and lignite mining contract services industry.

¹⁹Represents horsepower of boilers. No horsepower was reported for Rhode Island, Pennsylvania, Illinois, Iowa, Oregon, and California.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 2.--COMPARATIVE STATISTICS FOR THE BITUMINOUS COAL AND LIGNITE

(For explanation of column

	Industry, geographic division, State, and year	Number of mines	Coal production (1,000 short tons)			Value of shipments ¹ (\$1,000)
			Total	Underground operations	Strip-pit and auger operations	
	Bituminous coal and lignite industries, total					
1	1954.....	6,844	391,109	288,980	102,129	2,050,587
2	1939.....	5,847	394,707	356,984	37,723	730,815
3	1929.....	5,639	537,443	516,260	⁵ 21,183	966,694
4	1919.....	8,303	460,426	⁶ 454,651	⁶ 5,775	1,145,978
	BITUMINOUS COAL INDUSTRY					
	United States, total					
5	1954.....	6,784	386,864	288,932	97,932	2,040,200
6	1939.....	5,716	391,729	355,426	36,303	727,358
	Middle Atlantic (Pennsylvania)					
7	1954.....	1,581	72,058	55,111	16,947	446,866
8	1939.....	1,272	92,584	89,619	2,965	188,925
9	1929 ⁷	1,391	144,111	143,664	⁵ 447	262,457
10	1919.....	2,594	150,030	⁶ 149,359	⁶ 671	362,974
	East North Central, total					
11	1954.....	842	87,790	41,370	46,420	379,487
12	1939 ⁷	1,485	84,472	59,315	25,157	137,105
13	1929 ⁷	1,208	⁸ 103,422	⁸ 90,408	⁵ 13,014	⁸ 183,036
14	1919 ⁷	1,730	116,973	⁶ 113,901	⁶ 3,072	266,112
	Ohio					
15	1954.....	550	32,438	10,962	21,476	130,254
16	1939 ⁷	658	20,290	16,119	4,171	33,342
17	1929 ⁷	562	24,092	22,379	⁵ 1,713	36,916
18	1919 ⁷	899	35,141	⁶ 33,392	⁶ 1,749	77,989
	Indiana					
19	1954.....	99	13,378	4,888	8,490	69,313
20	1939.....	266	16,942	8,045	8,897	25,176
21	1929.....	235	18,625	12,871	⁵ 5,754	31,502
22	1919.....	317	20,505	⁶ 19,596	⁶ 909	45,493
	Illinois					
23	1954.....	193	41,974	25,520	16,454	179,920
24	1939 ⁷	550	46,783	34,694	12,089	76,864
25	1929 ⁷	404	60,705	55,158	⁵ 5,547	114,618
26	1919 ⁷	500	60,331	⁶ 59,917	⁶ 414	138,768
	Michigan					
27	1954.....	...	...	...	...	...
28	1939.....	11	457	457	...	1,723
29	1929.....	7	(NA)	(NA)	(NA)	(NA)
30	1919.....	14	996	996	...	3,862
	West North Central, total					
31	1954.....	175	5,099	522	4,577	23,377
32	1939.....	544	8,897	4,058	4,839	18,386
33	1929 ⁷	520	11,234	8,267	⁵ 2,967	28,454
34	1919 ⁷	559	14,462	⁶ 12,917	⁶ 1,545	44,730
	Iowa					
35	1954.....	73	1,198	338	860	4,543
36	1939.....	271	2,948	2,362	586	7,189
37	1929 ⁷	173	4,285	4,285	...	11,833
38	1919 ⁷	196	5,474	5,474	...	16,903
	Missouri					
39	1954.....	68	2,524	158	2,366	12,155
40	1939.....	180	3,274	1,000	2,274	6,139
41	1929 ⁷	192	3,963	2,049	⁵ 1,914	9,668
42	1919.....	196	3,784	⁶ 2,823	⁶ 961	12,078
	Kansas					
43	1954.....	34	1,377	26	1,351	6,679
44	1939.....	93	2,675	696	1,979	5,058
45	1929.....	155	2,986	1,933	⁵ 1,053	6,953
46	1919 ⁷	167	5,204	⁶ 4,620	⁶ 584	15,749
	South Atlantic, total					
47	1954.....	2,038	133,097	121,867	11,230	738,597
48	1939 ⁷	923	⁹ 123,336	⁹ 122,743	593	⁹ 218,640
49	1929 ⁷	983	¹⁰ 154,415	¹⁰ 153,594	¹⁰ 821	¹⁰ 242,930
50	1919 ⁷	1,503	¹² 89,949	¹² 89,941	¹² 8	¹² 225,067
	Maryland					
51	1954.....	80	431	237	194	2,119
52	1939.....	83	1,443	1,443	(11)	2,978
53	1929.....	63	2,638	¹¹ 2,638	(11)	4,745
54	1919.....	92	2,997	⁶ 2,989	⁶ 8	8,196

BITUMINOUS COAL AND LIGNITE MINING

12A-9

INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954, 1939, 1929, AND 1919

captions, see INTRODUCTION)

Number of employees		Designated principal expenses (\$1,000)							Aggregate horsepower rating of power equipment	
Production and development workers	All other employees	Wages of production and development workers	Salaries of all other employees	Supplies and raw coal received for mechanical cleaning or resale	Fuel	Purchased electric energy	Contract work			
198,324	19,063	759,352	108,885	523,878	15,951	47,766	54,437	6,167,484	1	
370,745	² 19,805	431,948	² 44,402	³ 88,435	⁴ 5,379	24,894	1,910	3,364,731	2	
458,835	² 23,686	574,919	² 58,647	³ 106,560	⁴ 7,529	30,739	1,890	3,125,103	3	
546,269	33,626	683,192	68,749	143,084	⁴ 25,901	11,291	2,869	2,157,946	4	
197,819	² 18,994	757,175	² 108,474	523,251	15,712	47,512	54,231	6,092,894	5	
369,265	² 19,690	430,564	² 44,183	³ 88,093	⁴ 5,299	24,749	1,899	3,343,679	6	
45,633	4,864	173,029	28,635	112,807	4,624	10,887	17,124	1,627,690	7	
93,086	5,312	117,058	12,483	³ 19,372	⁴ 1,198	5,926	723	840,191	8	
121,000	4,676	157,730	11,668	³ 27,915	⁴ 1,816	8,574	465	937,157	9	
155,101	8,331	211,481	18,066	45,069	⁴ 7,600	3,524	630	659,066	10	
27,659	3,173	114,802	19,309	99,043	4,551	9,877	6,818	1,312,095	11	
57,741	4,041	67,459	9,795	³ 20,614	⁴ 1,985	5,033	545	791,190	12	
⁸ 84,416	⁸ 3,391	⁸ 111,471	⁸ 7,793	³ ⁸ 19,729	⁴ ⁸ 2,329	⁸ 4,755	⁸ 336	⁸ 562,914	13	
140,365	7,557	165,411	17,253	30,495	⁴ 7,308	1,789	545	489,756	14	
10,015	1,117	41,181	6,594	29,256	3,339	2,314	3,990	496,066	15	
17,385	1,018	20,476	2,163	³ 3,717	⁴ 423	1,076	257	130,675	16	
21,739	625	24,447	1,479	³ 3,894	⁴ 245	1,173	89	112,977	17	
40,452	2,359	47,749	5,103	9,106	⁴ 1,433	925	372	136,145	18	
4,153	591	17,663	3,951	27,148	465	1,841	183	237,308	19	
8,541	549	10,715	1,223	³ 4,401	⁴ 416	1,005	97	142,632	20	
12,860	652	18,102	1,502	³ 3,719	⁴ 510	990	43	106,809	21	
24,479	1,262	27,878	3,390	5,379	⁴ 1,455	159	104	99,585	22	
13,491	1,465	55,958	8,764	42,639	747	5,722	2,645	578,721	23	
31,013	2,395	35,203	6,164	³ 12,351	⁴ 1,061	2,927	190	510,943	24	
49,817	2,114	68,922	4,812	³ 12,116	⁴ 1,574	2,592	204	343,128	25	
73,780	3,846	87,796	8,554	15,345	⁴ 4,155	668	69	247,142	26	
...	...	...	...	...	...	...	...	...	27
802	79	1,065	245	³ 145	⁴ 85	25	1	6,940	28	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	29	
1,654	90	1,988	206	665	⁴ 265	37	...	6,884	30	
1,766	183	6,193	1,193	5,804	432	846	387	141,721	31	
10,216	545	8,967	1,075	³ 2,381	⁴ 246	870	23	88,715	32	
14,004	607	16,588	1,348	³ 2,845	⁴ 380	604	31	79,123	33	
25,953	1,314	29,794	2,806	5,045	⁴ 1,357	248	345	77,942	34	
562	40	1,549	173	438	195	86	216	31,775	35	
4,565	209	4,404	348	³ 737	⁴ 121	188	17	28,583	36	
5,942	266	7,821	640	³ 989	⁴ 121	227	2	25,763	37	
10,584	477	11,688	1,203	1,758	⁴ 450	121	33	26,123	38	
781	69	2,874	485	3,391	128	536	13	60,929	39	
3,275	212	2,631	492	³ 866	⁴ 93	347	4	37,337	40	
4,657	235	5,150	481	³ 1,146	⁴ 137	242	22	34,812	41	
7,285	410	8,157	778	1,381	⁴ 428	71	306	28,385	42	
423	74	1,770	535	1,975	109	224	158	49,017	43	
2,376	124	1,932	235	³ 778	⁴ 32	335	2	22,795	44	
3,405	106	3,617	227	³ 710	⁴ 122	135	7	18,548	45	
8,084	427	9,949	825	1,906	⁴ 479	56	6	23,434	46	
72,609	6,547	287,103	35,886	207,911	3,316	16,010	21,161	1,736,368	47	
⁹ 111,259	⁹ 4,817	⁹ 137,429	⁹ 10,503	³ ⁹ 25,840	⁴ ⁹ 689	⁹ 7,698	⁹ 379	⁹ 859,715	48	
¹⁰ 114,215	¹⁰ 5,604	¹⁰ 141,311	¹⁰ 13,497	³ ¹⁰ 27,397	⁴ ¹⁰ 823	¹⁰ 9,315	¹⁰ 294	¹⁰ 726,448	49	
¹² 103,149	¹² 7,414	¹² 124,123	¹² 14,257	¹² 30,355	⁴ ¹² 3,142	¹² 3,342	¹² 639	¹² 409,682	50	
352	19	1,003	70	331	80	23	28	15,965	51	
2,100	134	2,073	220	³ 324	⁴ 38	59	3	11,721	52	
3,042	139	3,114	335	³ 540	⁴ 25	130	...	11,444	53	
4,826	325	5,386	679	929	⁴ 133	50	11	12,470	54	

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 2.—COMPARATIVE STATISTICS FOR THE BITUMINOUS COAL AND LIGNITE
(For explanation of column

	Industry, geographic division, State, and year	Number of mines	Coal production (1,000 short tons)			Value of shipments ¹ (\$1,000)
			Total	Underground operations	Strip-pit and auger operations	
	South Atlantic—Continued					
	Virginia					
1	1954.....	609	16,476	15,395	1,081	99,078
2	1939 ⁷	114	13,531	13,531	...	24,994
3	1929.....	88	12,745	12,745	...	21,162
4	1919 ⁷	119	9,335	9,335	...	23,763
	West Virginia					
5	1954.....	1,344	116,181	106,226	9,955	637,357
6	1939.....	724	108,362	107,769	593	190,668
7	1929 ⁷	831	139,032	138,211	⁵ 821	217,023
8	1919.....	1,290	77,617	77,617	...	193,108
	North Carolina and Georgia					
9	1954.....	5	⁹	⁹	...	⁴³
10	1939.....	2	(⁹)	(⁹)	...	(⁹)
11	1929.....	1	(NA)	(NA)	(NA)	(NA)
12	1919.....	2	(¹²)	(¹²)	...	(¹²)
	East South Central, total					
13	1954.....	1,784	73,426	58,977	14,449	365,935
14	1939 ⁷	835	59,788	(NA)	(NA)	112,058
15	1929 ⁷	759	84,488	83,579	⁹ 909	143,581
16	1919 ⁷	1,148	¹² 50,029	¹² 49,732	¹² 297	¹² 132,041
	Kentucky					
17	1954.....	1,159	56,791	45,410	11,381	267,461
18	1939 ⁷	481	42,556	41,763	793	74,164
19	1929 ⁷	501	60,894	60,268	⁵ 626	95,647
20	1919 ⁷	745	29,426	⁶ 29,415	⁶ 11	72,433
	Tennessee					
21	1954.....	411	6,348	4,823	1,525	26,462
22	1939.....	123	5,185	(NA)	(NA)	10,104
23	1929.....	78	5,405	5,273	⁵ 132	9,369
24	1919.....	143	¹² 5,192	¹² 5,182	¹² 10	¹² 14,249
	Alabama					
25	1954.....	214	10,287	8,744	1,543	72,012
26	1939.....	231	12,047	11,985	62	27,790
27	1929.....	180	18,189	18,038	⁵ 151	38,565
28	1919.....	260	15,411	⁶ 15,135	⁶ 276	45,359
	West South Central, total					
29	1954.....	76	2,396	995	1,401	15,761
30	1939 ⁷	171	2,356	1,831	525	6,213
	Arkansas					
31	1954.....	33	480	255	225	3,692
32	1939.....	78	1,152	1,127	25	3,656
33	1929.....	86	1,824	1,824	...	6,173
34	1919.....	91	1,440	⁶ 1,429	⁶ 11	5,292
	Oklahoma					
35	1954.....	43	1,916	740	1,176	12,069
36	1939 ⁷	89	1,188	688	500	2,505
37	1929.....	113	3,795	3,289	⁵ 506	10,790
38	1919.....	131	3,783	⁶ 3,624	⁶ 159	14,477
	Texas ¹³					
39	1954.....	...	...	...	...	...
40	1939.....	4	16	16	...	52
	Mountain, total					
41	1954.....	270	12,378	9,529	2,849	65,687
42	1939 ⁷	433	18,606	(NA)	(NA)	40,769
	Montana ¹³					
43	1954.....	27	1,492	(D)	(D)	4,158
44	1939.....	59	2,756	(NA)	(NA)	4,019
	Wyoming					
45	1954.....	32	2,834	1,396	1,438	11,822
46	1939.....	66	5,373	5,195	178	11,078
47	1929.....	50	6,700	6,628	⁵ 72	17,119
48	1919.....	65	7,212	7,212	...	18,723
	Colorado					
49	1954.....	129	2,907	2,610	297	15,983
50	1939 ⁷	212	5,923	(NA)	(NA)	14,952
51	1929.....	176	9,833	(NA)	(NA)	26,553
52	1919 ⁷	165	10,183	10,183	...	28,342

BITUMINOUS COAL AND LIGNITE MINING

12A-11

INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954, 1939, 1929, AND 1919--Continued

captions, see INTRODUCTION)

Number of employees		Designated principal expenses (\$1,000)						Aggregate horsepower rating of power equipment	
Production and development workers	All other employees	Wages of production and development workers	Salaries of all other employees	Supplies and raw coal received for mechanical cleaning or resale	Fuel	Purchased electric energy	Contract work		
10,730	990	34,763	4,733	34,244	429	1,714	2,390	201,139	1
15,065	717	15,781	1,365	32,738	446	833	21	83,240	2
11,956	494	11,846	1,193	32,564	463	1,061	2	72,126	3
11,215	683	12,962	1,300	3,432	4284	439	222	41,630	4
61,518	5,538	251,318	31,083	173,326	2,807	14,273	18,743	1,519,264	5
94,094	3,966	119,575	8,918	322,778	4605	6,806	355	764,754	6
99,217	4,971	126,351	11,969	324,293	4735	8,124	292	642,878	7
87,108	6,406	105,775	12,278	25,994	42,725	2,853	406	355,582	8
9 (9)	...	19 (9)	...	10 (9)	...	...	...	...	9
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	10
(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	11
41,188	3,420	144,013	19,107	82,993	2,249	7,887	5,701	853,281	13
73,085	3,116	72,089	6,116	313,383	4500	3,382	174	455,287	14
86,507	4,547	89,822	9,498	317,160	4906	4,850	138	508,542	15
1274,189	125,384	1282,838	1210,179	1218,401	4 123,398	121,091	12360	12247,411	16
29,416	2,371	105,369	12,030	65,367	1,352	5,537	3,742	552,510	17
46,826	2,000	48,674	3,819	38,691	4258	2,420	84	258,717	18
54,904	2,880	60,155	5,785	310,924	4565	2,978	41	290,985	19
39,769	3,320	45,616	6,173	10,945	41,553	568	199	126,804	20
3,960	173	12,201	928	4,340	417	319	607	80,123	21
7,081	388	6,581	732	3978	458	290	8	46,268	22
6,822	448	6,000	956	3786	499	318	6	30,684	23
129,772	12583	128,895	121,045	122,036	4 12389	1251	1273	1223,568	24
7,812	876	26,443	6,149	13,286	480	2,031	1,352	220,648	25
19,178	728	16,834	1,565	33,714	4184	672	82	150,302	26
24,781	1,219	23,667	2,757	35,450	4242	1,554	91	186,873	27
24,648	1,481	28,327	2,961	5,420	41,456	472	88	97,039	28
1,542	80	5,802	375	2,774	205	319	590	81,074	29
4,098	274	3,373	423	3976	463	319	28	46,976	30
430	27	1,564	119	644	43	96	17	20,706	31
2,614	145	2,117	249	3542	424	192	3	25,214	32
3,651	176	3,630	326	3549	448	203	15	20,658	33
2,787	230	3,475	384	717	4172	96	57	15,027	34
1,112	53	4,238	256	2,130	162	223	573	60,368	35
1,409	113	1,222	171	3429	438	126	25	20,474	36
4,716	258	6,392	577	31,385	4125	293	2	27,789	37
7,040	1,223	8,790	932	1,392	4636	113	58	36,483	38
...	...	...	...	...	...	...	...	...	39
75	16	34	3	35	41	1	...	1,288	40
6,762	687	23,622	3,802	11,069	293	1,559	2,306	313,946	41
17,515	1,224	21,176	2,898	34,846	4569	1,333	23	221,368	42
290	48	868	200	197	13	66	980	16,072	43
1,193	69	1,607	186	3592	415	148	3	23,539	44
1,138	84	3,916	379	1,789	92	212	857	114,994	45
4,074	226	5,390	662	31,302	4157	255	11	52,237	46
4,693	198	8,717	533	31,750	4366	292	32	45,466	47
7,091	322	10,545	880	2,288	4394	311	1	47,075	48
2,431	187	7,928	1,007	1,956	78	430	145	76,390	49
7,607	507	8,704	1,008	31,716	4300	518	9	83,924	50
10,420	440	15,701	1,199	32,617	4333	724	251	77,174	51
11,252	709	16,833	1,577	3,052	4623	442	16	63,016	52

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 2.--COMPARATIVE STATISTICS FOR THE BITUMINOUS COAL AND LIGNITE

(For explanation of column

	Industry, geographic division, State, and year	Number of mines	Coal production (1,000 short tons)			Value of shipments ¹ (\$1,000)
			Total	Underground operations	Strip-pit and auger operations	
	Mountain--Continued					
	New Mexico					
1	1954.....	24	125	(D)	(D)	732
2	1939.....	42	1,230	1,230	...	3,579
3	1929.....	43	2,632	(NA)	(NA)	8,324
4	1919.....	34	3,185	3,185	...	9,906
	Idaho and Arizona					
5	1954.....	3	11	11	...	68
6	1939.....	3	939	939	...	9,116
7	1929.....	5	(NA)	(NA)	(NA)	(NA)
8	1919.....	1	(NA)	(NA)	(NA)	(NA)
	Utah					
9	1954.....	55	5,009	5,009	...	32,924
10	1939.....	51	3,285	(NA)	(NA)	7,025
11	1929 ⁷	41	5,132	5,132	...	13,146
12	1919.....	34	4,593	4,593	...	12,632
	Pacific (Washington and Oregon)					
13	1954.....	18	620	561	59 ⁸	4,490
14	1939 ⁹	53	1,690	(NA)	(NA)	5,262
15	1929 ⁷	44	2,618	(NA)	(NA)	8,725
16	1919 ⁷	49	14,987	(NA)	(NA)	10,801
	LIGNITE INDUSTRY					
	United States, total					
17	1954.....	60	4,245	48	4,197	10,387
18	1939.....	131	2,978	1,558	1,420	3,457
	East and South					
19	1954.....	48	4,210	23	4,187	10,254
20	1939.....	114	2,930	1,515	1,415	3,381
21	1929 ¹⁵	115	1,854	1,008	846	3,207
22	1919 ¹⁶	84	777	(NA)	(NA)	1,957
	West					
23	1954.....	12	35	25	10	133
24	1939.....	17	48	43	5	76

D Withheld to avoid approximately disclosing figures for individual companies.

NA Not available.

¹For 1954 represents total value of shipments, including coal sold or transferred to other establishments for mechanical cleaning or for resale without mechanical cleaning. (For net value of shipments, see table 1.) For 1939 and 1929, represents net value of production of marketable coal. This net value excludes the value of coal sold for cleaning. For 1919 there were no transfers for cleaning or resale. For 1939 and earlier years, represents production and includes the value of coal produced and used at the same establishment for power or heat. (For 1939 figures adjusted to exclude coal used for power or heat, see table 5A.)

²Includes data for employees at central offices in States in which no coal was produced or which were not distributed by State.

³Excludes the cost of raw coal received for mechanical cleaning or for resale.

⁴Includes the value of coal produced and used at the same establishment for power or heat.

⁵Strip-pit coal produced as a secondary activity at establishments primarily producing underground coal is included with the underground production. Also all coal produced at establishments with products valued at less than \$20,000 is included with underground production.

⁶For 1919, the segregation between underground and strip-pit production is only approximate. The figures for "strip-pit" production are from a tabulation by the United States Geological Survey of data collected cooperatively by that agency and the Census Bureau.

BITUMINOUS COAL AND LIGNITE MINING

12A-13

INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954, 1939, 1929, AND 1919--Continued

captions, see INTRODUCTION)

Number of employees		Designated principal expenses (\$1,000)							Aggregate horsepower rating of power equipment	
Production and development workers	All other employees	Wages of production and development workers	Salaries of all other employees	Supplies and raw coal received for mechanical cleaning or resale	Fuel	Purchased electric energy	Contract work			
147	12	350	28	48	6	37	28	10,047	1	
2,193	160	2,083	395	3360	478	99	...	21,352	2	
3,120	185	4,587	478	3859	491	167	...	23,813	3	
3,564	200	5,642	518	976	4136	67	103	18,063	4	
21	...	27	...	9	...	...	...	37	5
9120	92	984	93	3 911	4 92	...	...	9126	6
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	7	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	...	(NA)	(NA)	8	
2,735	356	10,533	2,188	7,070	104	814	296	96,406	9	
2,328	260	3,308	644	3865	417	313	...	40,190	10	
3,452	281	6,636	825	31,641	428	429	116	35,386	11	
3,647	253	7,599	572	1,565	4170	99	...	24,029	12	
660	40	2,611	167	850	42	127	144	26,719	13	
2,219	137	2,947	306	3678	448	175	4	34,333	14	
2,868	134	4,750	296	3701	463	235	1	27,472	15	
4,476	233	6,608	489	1,391	4548	97	71	32,565	16	
505	69	2,177	411	627	239	254	206	74,590	17	
1,480	115	1,384	219	3342	480	145	11	21,052	18	
489	68	2,135	410	611	235	252	203	70,714	19	
1,429	107	1,345	215	3327	478	143	11	20,359	20	
994	67	1,289	168	3348	450	68	9	10,310	21	
782	90	1,041	160	285	433	5	31	2,086	22	
16	1	42	1	16	4	2	3	3,876	23	
51	8	39	4	315	42	2	...	693	24	

⁷All figures except number of mines exclude data for nonproducing establishments as follows: For 1939: Ohio, 2 mines; Illinois, 4; Virginia, 2; Kentucky, 3; Oklahoma, 1; and Colorado, 1. For 1929: Pennsylvania, 4 mines; Ohio, 1; Illinois, 3; Iowa, 1; Missouri, 2; West Virginia, 1; Kentucky, 1; Utah, 1; and Washington, 3. For 1919: Ohio, 1 mine; Illinois, 1; Iowa, 1; Kansas, 1; Virginia, 1; Kentucky, 3; Texas, 1; Colorado, 1; Oregon, 1; and Washington, 2.

⁸Excludes data for Michigan.

⁹Data for Georgia and Oregon are included with those for Idaho and Arizona.

¹⁰Excludes data for Georgia.

¹¹All production for Maryland is included as "Underground."

¹²For 1919, data for North Carolina and Georgia are included with those for Tennessee. No coal mines were reported operated in North Carolina in later Census years.

¹³Census figures for years prior to 1939 include lignite establishments.

¹⁴Represents Washington only.

¹⁵Represents North Dakota only.

¹⁶Represents North Dakota and South Dakota only.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 3A.—DETAILED STATISTICS FOR THE BITUMINOUS COAL AND LIGNITE MINING

(For explanation of line

Item	Bituminous coal and lignite mining industries (United States and Alaska), total	Bituminous coal and lignite industries (United States and Alaska), total	Bituminous coal industry		
			United States and Alaska, total	United States, total	Middle Atlantic (Pennsylvania)
1 Number of operating companies.....	6,113	5,975	5,922	5,913	1,341
2 Number of establishments.....	6,865	6,713	6,653	6,643	1,545
3 Number of mines.....	6,857	6,857	6,797	6,784	1,581
4 Number of mechanical cleaning plants.....	630	630	630	628	96
5 Net production of bituminous coal and lignite, total ³.....1,000 short tons..	391,776	391,776	387,531	386,864	72,058
6 From underground operations.....do....	289,254	289,254	289,206	288,932	55,111
7 From strip-pit operations.....do....	98,054	98,054	93,857	93,464	16,698
8 From auger operations.....do....	4,468	4,468	4,468	4,468	249
9 Net shipments of bituminous coal and lignite ³.....do....	391,907	391,907	387,669	387,006	71,673
10 Value of shipments, total ³.....\$1,000..	2,074,767	2,057,171	2,046,784	2,040,200	446,866
11 Raw coal sold or transferred for mechanical cleaning and for resale in the bituminous coal industry.....do....	261,986	261,986	261,986	261,864	64,359
12 Net shipments, total ³.....do....	1,812,781	1,795,185	1,784,798	1,778,336	382,507
13 Coal net shipments ³.....do....	1,790,705	1,790,705	1,780,375	1,773,930	380,889
14 Other products and services.....do....	22,076	4,480	4,423	4,406	1,618
15 Value added in mining.....do....	1,424,161	1,411,644	1,402,551	1,396,774	294,970
16 Number of persons engaged, total.....	226,968	225,358	224,727	224,352	52,217
17 Production and development workers.....	199,970	198,639	198,134	197,819	45,633
18 All other employees.....	19,236	19,121	19,052	18,994	4,864
19 Proprietors and firm members.....	7,762	7,598	7,541	7,539	1,720
20 Performing manual labor.....	5,487	5,369	5,326	5,324	1,064
21 Man-hours worked by production and development workers, total.....1,000..	326,457	323,999	323,098	322,410	73,135
22 Underground (mining and development).....do....	234,219	234,219	234,178	233,827	53,803
23 Strip-pit, total.....do....	27,673	25,723	25,178	24,999	6,618
24 Stripping overburden.....do....	16,493	15,270	15,011	14,899	4,204
25 Mining.....do....	11,180	10,453	10,167	10,100	2,414
26 Auger mining.....do....	1,398	1,193	1,193	1,193	96
27 Surface (including tipples, cleaning plants, shops and yards, and auxiliary units).....do....	63,167	62,864	62,549	62,391	12,618
28 Man-hours spent on development and exploration work (included above).....do....	1,124	1,124	1,123	1,089	231
29 Net coal produced per man-hour.....short tons..	1.20	1.21	1.19	1.20	0.99
30 Principal expenses designated below, total.....\$1,000..	1,525,790	1,514,784	1,510,870	1,506,355	347,106
31 Wages of production and development workers.....do....	767,347	761,836	759,659	757,175	173,029
32 Salaries of all other employees.....do....	110,068	109,511	109,100	108,474	28,635
33 Raw coal received for mechanical cleaning.....do....	204,074	204,074	204,074	203,953	55,096
34 Raw coal received for resale without mechanical cleaning.....do....	62,065	62,065	62,065	62,065	8,450
35 Supplies.....do....	261,483	258,492	257,865	257,233	49,261
36 Purchased fuel.....do....	17,324	16,164	15,925	15,712	4,624
37 Purchased electric energy.....do....	47,859	47,823	47,569	47,512	10,887
38 Contract work.....do....	55,570	54,819	54,613	54,231	17,124
39 Purchased machinery installed.....do....	122,318	119,766	119,159	118,481	27,482
40 Capital expenditures, total.....do....	120,087	117,676	117,037	115,761	21,028
41 Development and exploration of mineral property.....do....	3,876	3,876	3,861	3,586	927
42 Cleaning plant construction and major alterations.....do....	23,678	23,678	23,677	23,186	2,959
43 Other construction.....do....	11,028	10,942	10,809	10,762	2,054
44 New machinery and equipment.....do....	66,569	64,687	64,208	63,845	11,342
45 Used plant and equipment.....do....	14,936	14,493	14,482	14,382	3,746
46 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	6,346,457	6,182,414	6,107,824	6,092,894	1,627,690
47 Per production worker.....	32	31	31	31	36
48 Prime movers.....	2,670,080	2,527,901	2,483,066	2,469,236	758,769
49 Electric motors driven by purchased energy.....	3,676,377	3,654,513	3,624,758	3,623,658	868,921
50 Horsepower rating of electric motors driven by energy generated at the establishment.....	124,062	117,786	117,264	116,686	48,419
51 Energy used.....million kwh equivalent..	15,411	15,058	14,914	14,854	4,392
52 Bituminous coal and lignite produced and used at same establishment.....1,000 short tons..	764	764	757	754	204
Fuels purchased:					
53 Bituminous coal and lignite.....do....	77	75	75	75	70
54 Distillate fuel oil.....1,000 barrels..	2,057	1,925	1,901	1,886	585
55 Residual fuel oil.....do....	78	70	70	70	27
56 Gas (natural and manufactured).....million cu. ft..	507	507	507	507	228
57 Other fuels.....\$1,000..	6,054	5,673	5,576	5,534	1,344
58 Electric energy purchased.....million kwh..	3,629	3,627	3,602	3,601	834
59 Electric energy generated and used.....do....	133	133	133	132	67
60 Water intake, including mine water used.....million gallons..	30,293	30,226	30,210	29,325	4,308
61 Per production worker.....do....	0.15	0.15	0.15	0.15	0.09

See footnotes at end of table.

BITUMINOUS COAL AND LIGNITE MINING

12A-15

INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES AND IN ALASKA: 1954

captions, see INTRODUCTION)

Bituminous coal industry—Continued												
East North Central				West North Central				South Atlantic				
Total	Ohio	Indiana	Illinois	Total	Iowa	Missouri	Kansas	Total	Maryland	Virginia	West Virginia	Georgia
717	485	81	156	168	71	67	32	1,751	77	579	1,099	5
813	517	98	198	176	73	69	34	1,985	79	607	1,294	5
842	550	99	193	175	73	68	34	2,038	80	609	1,344	5
122	26	27	69	13	...	9	4	230	...	31	199	...
87,790	32,438	13,378	41,974	5,099	1,198	2,524	1,377	133,097	431	16,476	116,181	9
41,370	10,962	4,888	25,520	522	338	158	26	121,867	237	15,395	106,226	9
45,466	20,522	8,490	16,454	4,577	860	2,366	1,351	8,598	194	913	7,491	...
954	954	...	...	...	...	...	...	2,632	...	168	2,464	...
90,452	32,521	16,032	41,899	5,093	1,198	53,895	(5)	133,663	431	15,367	117,856	9
379,487	130,254	69,313	179,920	23,377	4,543	12,155	6,679	738,597	2,119	99,078	637,357	43
33,963	10,896	3,207	19,860	3,255	4,543	12,155	6,679	106,850	108	27,021	79,721	...
345,524	119,358	66,106	160,060	20,122				631,747	2,011	72,057	557,636	43
344,861	119,104	65,719	160,038	20,074				630,566	1,942	71,987	556,594	43
663	254	387	22	48				1,181	69	70	1,042	...
258,913	90,164	39,588	129,161	15,471	3,556	7,644	4,271	494,259	1,631	61,508	431,087	33
31,695	11,713	4,830	15,152	2,163	709	919	535	81,149	455	12,562	68,118	14
27,659	10,015	4,153	13,491	1,766	562	781	423	72,609	352	10,730	61,518	9
3,173	1,117	591	1,465	183	40	69	74	6,547	19	990	5,538	...
863	581	86	196	214	107	69	38	1,993	84	842	1,062	5
613	440	48	125	172	86	53	33	1,379	66	583	726	4
46,662	17,910	6,764	21,988	3,076	991	1,364	721	120,177	562	17,324	102,276	15
23,589	7,951	2,935	12,703	839	461	325	53	94,791	372	13,634	80,770	15
10,022	5,743	1,726	2,553	1,340	341	570	429	2,974	132	382	2,460	...
5,633	3,230	962	1,441	703	192	307	204	1,916	78	189	1,649	...
4,389	2,513	764	1,112	637	149	263	225	1,058	54	193	811	...
174	174	...	...	...	...	...	...	768	...	49	719	...
12,877	4,042	2,103	6,732	897	189	469	239	21,644	58	3,259	18,327	...
283	13	87	183	19	10	9	...	351	7	44	300	...
1.88	1.81	1.98	1.91	1.65	1.21	1.85	1.91	1.10	0.77	0.95	1.14	0.60
254,400	86,674	51,251	116,475	14,855	2,657	7,427	4,771	571,387	1,535	78,273	491,550	29
114,802	41,181	17,663	55,958	6,193	1,549	2,874	1,770	287,103	1,003	34,763	251,318	19
19,309	6,594	3,951	8,764	1,193	173	485	535	35,886	70	4,733	31,083	...
48,563	10,314	18,418	19,831	3,242	...	...	...	66,687	...	9,807	56,880	...
1,555	1,499	2	54	13	438	3,391	1,975	43,525	108	12,429	30,988	...
48,925	17,443	8,728	22,754	2,549				97,699	223	12,008	85,458	10
4,551	3,339	465	747	432				3,316	80	429	2,807	...
9,877	2,314	1,841	5,722	846				16,010	23	1,714	14,273	...
6,818	3,990	183	2,645	387	216	13	158	21,161	28	2,390	18,743	...
26,233	8,720	6,849	10,664	1,451	471	724	256	43,311	171	3,524	39,616	...
25,948	7,529	6,761	11,658	1,014	419	281	314	47,371	145	4,731	42,495	...
730	90	266	374	8	6	2	...	910	8	123	779	...
4,562	645	209	3,708	94	...	4	90	12,294	...	550	11,744	...
2,568	292	650	1,626	149	30	32	87	4,630	...	1,039	3,591	...
15,186	5,001	5,394	4,791	547	324	149	74	25,556	102	2,282	23,172	...
2,902	1,501	242	1,159	216	59	94	63	3,981	35	737	3,209	...
1,312,095	496,066	237,308	578,721	141,721	31,775	60,929	49,017	1,736,368	15,965	201,139	1,519,264	...
47	50	57	43	80	57	78	116	24	45	19	25	...
656,610	368,192	117,438	170,980	98,530	26,275	34,673	37,582	504,493	12,569	69,016	422,908	...
655,485	127,874	119,870	407,741	43,191	5,500	26,256	11,435	1,231,875	3,396	132,123	1,096,356	...
20,733	6,587	8,833	5,313	244	145	99	...	26,325	22	4,635	21,668	...
3,277	1,310	534	1,433	211	68	76	67	3,786	32	422	3,332	...
143	2	35	106	3	1	...	2	199	...	24	175	...
2	2	...	...	...	...	...	...	2	1	...	1	...
588	450	45	93	60	21	21	18	341	9	38	294	...
25	20	5	...	...	...	...	...	12	...	2	10	...
61	61	...	...	...	...	...	...	196	...	...	196	...
1,477	1,035	190	252	155	81	44	30	1,402	33	239	1,130	...
726	197	132	397	46	4	29	13	1,228	1	109	1,118	...
16	4	8	4	...	...	...	...	21	...	6	15	...
7,847	892	2,169	4,786	817	...	524	293	9,759	...	1,848	7,911	...
0.28	0.09	0.52	0.35	0.46	...	0.67	0.69	0.13	...	0.17	0.13	...

Table 3A.—DETAILED STATISTICS FOR THE BITUMINOUS COAL AND LIGNITE MINING

(For explanation of line

Item	Bituminous coal industry—Continued						
	East South Central				West South Central		
	Total	Kentucky	Tennessee	Alabama	Total	Arkansas	Oklahoma
1 Number of operating companies.....	1,673	1,086	405	190	73	33	40
2 Number of establishments.....	1,767	1,145	409	213	75	33	42
3 Number of mines.....	1,784	1,159	411	214	76	33	43
4 Number of mechanical cleaning plants.....	139	81	7	51	4	...	4
5 Net production of bituminous coal and lignite, total ³.....1,000 short tons..	73,426	56,791	6,348	10,287	2,396	480	1,916
6 From underground operations.....do....	58,977	45,410	4,823	8,744	995	255	740
7 From strip-pit operations.....do....	13,816	10,784	1,489	1,543	1,401	225	1,176
8 From auger operations.....do....	633	597	36	...	...	...	...
9 Net shipments of bituminous coal and lignite ³.....do....	70,814	53,984	6,322	10,508	2,395	480	1,915
10 Value of shipments, total ³.....\$1,000..	365,935	267,461	26,462	72,012	15,761	3,692	12,069
11 Raw coal sold or transferred for mechanical cleaning and for resale in the bituminous coal industry.....do....	50,399	45,037	1,013	4,349	15,761	3,692	12,069
12 Net shipments, total ³.....do....	315,536	222,424	25,449	67,663			
13 Coal net shipments ³.....do....	315,343	222,297	25,446	67,600			
14 Other products and services.....do....	193	127	3	63	53	(D)	(D)
15 Value added in mining.....do....	268,259	193,094	20,837	54,328	11,637	2,783	8,854
16 Number of persons engaged, total.....	46,957	33,397	4,636	8,924	1,701	503	1,198
17 Production and development workers.....	41,188	29,416	3,960	7,812	1,542	430	1,112
18 All other employees.....	3,420	2,371	173	876	80	27	53
19 Proprietors and firm members.....	2,349	1,610	503	236	79	46	33
20 Performing manual labor.....	1,783	1,192	422	169	62	41	21
21 Man-hours worked by production and development workers, total.....1,000..	65,954	47,333	6,325	12,296	2,594	668	1,926
22 Underground (mining and development).....do....	51,267	37,094	4,964	9,209	1,616	433	1,183
23 Strip-pit, total.....do....	3,184	1,927	599	658	553	116	437
24 Stripping overburden.....do....	1,952	1,202	364	386	345	81	264
25 Mining.....do....	1,232	725	235	272	208	35	173
26 Auger mining.....do....	155	155	...	...	...	...	...
27 Surface (including tipples, cleaning plants, shops and yards, and auxiliary units).....do....	11,348	8,157	762	2,429	425	119	306
28 Man-hours spent on development and exploration work (included above).....do....	124	62	26	36	...	...	...
29 Net coal produced per man-hour.....short tons..	1.11	1.20	1.00	0.84	0.92	0.72	0.99
30 Principal expenses designated below, total.....\$1,000..	261,950	193,397	18,812	49,741	10,065	2,483	7,582
31 Wages of production and development workers.....do....	144,013	105,369	12,201	26,443	5,802	1,564	4,238
32 Salaries of all other employees.....do....	19,107	12,030	928	6,149	375	119	256
33 Raw coal received for mechanical cleaning.....do....	27,299	22,711	186	4,402	256	...	(9)
34 Raw coal received for resale without mechanical cleaning.....do....	8,471	7,484	702	285	644	92	130
35 Supplies.....do....	47,223	35,172	3,452	8,599			
36 Purchased fuel.....do....	2,249	1,352	417	480			
37 Purchased electric energy.....do....	7,887	5,537	319	2,031	319	96	223
38 Contract work.....do....	5,701	3,742	607	1,352	590	17	573
39 Purchased machinery installed.....do....	16,357	9,933	1,121	5,303	536	190	346
40 Capital expenditures, total.....do....	17,511	11,564	1,179	4,768	300	81	219
41 Development and exploration of mineral property.....do....	840	387	131	322	8	3	5
42 Cleaning plant construction and major alterations.....do....	3,240	2,209	17	1,014	7	7	...
43 Other construction.....do....	1,236	628	27	581	6	3	3
44 New machinery and equipment.....do....	9,304	6,602	622	2,080	211	32	179
45 Used plant and equipment.....do....	2,891	1,738	382	771	68	36	32
46 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	853,281	552,510	80,123	220,648	81,074	20,706	60,368
47 Per production worker.....	21	19	20	28	53	48	54
48 Prime movers.....	288,189	174,543	51,500	62,146	44,376	13,495	30,881
49 Electric motors driven by purchased energy.....	565,092	377,967	28,623	158,502	36,698	7,211	29,487
50 Horsepower rating of electric motors driven by energy generated at the establishment.....	12,564	11,465	817	282	416	...	416
51 Energy used.....million kwh equivalent..	1,703	1,025	170	508	99	28	71
52 Bituminous coal and lignite produced and used at same establishment.....1,000 short tons..	54	31	1	22	1	1	...
53 Fuels purchased:							
54 Bituminous coal and lignite.....do....	1	1	...	...	...	...	...
55 Distillate fuel oil.....1,000 barrels..	248	143	52	53	30	4	26
56 Residual fuel oil.....do....	6	3	1	2	...	...	...
57 Gas (natural and manufactured).....million cu. ft..	19	19	...	...	3	...	3
58 Other fuels.....\$1,000..	922	570	157	195	60	21	39
59 Electric energy purchased.....million kwh..	609	381	32	196	24	8	16
60 Electric energy generated and used.....do....	19	18	1	...	...	...	...
61 Water intake, including mine water used.....million gallons..	5,587	3,712	30	1,845	305	9	296
62 Per production worker.....do....	0.14	0.13	0.01	0.24	0.20	0.02	0.27

See footnotes at end of table.

BITUMINOUS COAL AND LIGNITE MINING

12A-17

 INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES AND IN ALASKA: 1954—Continued
 captions, see INTRODUCTION)

Bituminous coal industry—Continued									Lignite industry			
Mountain							Pacific (Washington and Oregon)	Alaska	Total	East and South (North Dakota, South Dakota, and Texas)	West (Montana and Califor- nia)	
Total	Montana	Wyoming	Colorado	New Mexico	Arizona	Utah						
239	26	22	118	23	3	48	13	9	56	44	12	1
267	27	32	127	24	3	54	15	10	60	48	12	2
270	27	32	129	24	3	55	18	13	60	48	12	3
14	5	1	3	1	...	4	10	2	...	...	...	4
12,378	1,492	2,834	2,907	125	11	5,009	620	667	4,245	4,210	35	5
9,529	1,492	1,396	2,610	125	11	5,009	561	274	48	23	25	6
2,849		1,438	297		...	...	59	393	4,197	4,187	10	7
...	...	...	...	...	...	...	...	...	...	...	...	8
12,297	1,489	2,756	2,922	122	11	4,997	619	663	4,238	4,203	35	9
65,687	4,158	11,822	15,983	732	68	32,924	4,490	6,584	10,387	10,254	133	10
65,687	...	...	...	732	...	32,924	4,490	122	...	...	...	11
	4,158	11,822	15,983		68			6,462	10,387	10,254	133	12
	(D)	11,241	15,937		(D)			6,445	10,330	10,197	133	13
	650	581	46		...			17	57	57	...	14
49,936	2,906	8,857	13,480	614	59	24,020	3,329	5,777	9,093	8,986	107	15
7,761	374	1,242	2,795	183	22	3,145	709	375	631	600	31	16
6,762	290	1,138	2,431	147	21	2,735	660	315	505	489	16	17
687	48	84	187	12	...	356	40	58	69	68	1	18
312	36	20	177	24	1	54	9	2	57	43	14	19
245	32	19	136	14	1	43	6	2	43	32	11	20
9,821	398	1,590	3,229	225	28	4,351	991	688	901	875	26	21
7,232	268	953	2,581	158	23	3,249	690	351	41	21	20	22
287	(D)	202	64	(D)	...	...	21	179	545	539	6	23
134	(D)	96	30	(D)	...	...	12	112	259	259	...	24
153	(D)	106	34	(D)	...	...	9	67	286	280	6	25
...	...	...	...	...	...	...	...	...	...	...	...	26
2,302	(D)	435	584	(D)	5	1,102	280	158	315	315	...	27
80	...	...	69	...	...	11	1	34	1	1	...	28
1.26	(⁸)	1.78	0.90	0.56	0.39	1.15	0.63	0.97	4.71	4.81	1.35	29
42,651	2,324	7,245	11,544	497	36	21,005	3,941	4,515	3,914	3,846	68	30
23,622	868	3,916	7,928	350	27	10,533	2,611	2,484	2,177	2,135	42	31
3,802	200	379	1,007	28	...	2,188	167	626	411	410	1	32
11,069	...	...	...	...	...	(⁹)	(⁹)	121	...	...	...	33
	...	...	...	...	...	...	...	...	...	...	...	34
	197	1,789	1,956	48	9	97,070	9850	632	627	611	16	35
	293	13	92	6	...	104	42	213	239	235	4	36
1,559	66	212	430	37	...	814	127	57	254	252	2	37
2,306	980	857	145	28	...	296	144	382	206	203	3	38
3,069	228	70	437	25	...	2,309	42	678	607	604	3	39
2,545	232	55	543	26	...	1,689	44	1,276	639	637	2	40
161	5	1	93	...	...	62	2	275	15	15	...	41
27	...	...	22	...	...	5	3	491	1	1	...	42
119	17	1	18	6	...	77	...	47	133	133	...	43
1,676	12	31	285	18	...	1,330	23	363	479	477	2	44
562	198	22	125	2	...	215	16	100	11	11	...	45
313,946	16,072	114,994	76,390	10,047	37	96,406	26,719	14,930	74,590	70,714	3,876	46
46	55	101	31	68	2	35	40	47	148	145	242	47
109,378	5,013	46,354	33,769	5,144	...	19,098	8,891	13,830	44,835	41,351	3,484	48
204,568	11,059	68,640	42,621	4,903	37	77,308	17,828	1,100	29,755	29,363	392	49
7,333	238	2,421	3,051	467	...	1,156	652	578	522	500	22	50
1,298	39	638	382	10	...	229	88	60	144	143	1	51
142	4	77	44	1	...	16	8	3	7	7	...	52
...	...	...	...	...	...	...	...	...	...	...	...	53
32	...	15	9	...	...	8	2	15	24	24	...	54
...	...	...	...	...	...	...	...	...	...	...	...	55
...	...	...	...	...	...	...	...	...	...	...	...	56
143	11	21	33	6	...	72	31	42	97	95	2	57
119	6	16	21	1	...	75	15	1	25	25	...	58
9	...	5	3	...	...	1	...	1	...	...	...	59
487	6	161	72	4	...	244	215	885	16	14	2	60
0.07	0.02	0.14	0.03	0.03	...	0.09	0.33	2.81	0.03	0.03	0.13	61

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 3A.—DETAILED STATISTICS FOR THE BITUMINOUS COAL AND LIGNITE MINING INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES AND IN ALASKA: 1954--Con.

(For explanation of line captions, see INTRODUCTION)

Item	Bituminous coal and lignite mining contract services industry ¹								
	United States, total	East and South							West (Montana, Wyoming, and Washington)
		Total	Pennsylvania	Ohio	West Virginia	Kentucky	Alabama	Other States ²	
Number of operating companies.....	152	147	62	17	44	5	4	15	5
Number of establishments.....	152	147	62	17	44	5	4	15	5
Number of mines.....	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Number of mechanical cleaning plants.....	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Net production of bituminous coal and lignite, total ³ ...1,000 short tons..	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)
From underground operations.....do....	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
From strip-pit operations.....do....	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)
From auger operations.....do....	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)
Net shipments of bituminous coal and lignite ³.....do....	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Value of shipments, total ³.....\$1,000..	617,596	615,659	67,766	6882	64,543	61,409	6395	6664	61,937
Raw coal sold or transferred for mechanical cleaning and for resale in the bituminous coal industry.....do....	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Net shipments total ³.....do....	17,596	15,659	7,766	882	4,543	1,409	395	664	1,937
Coal net shipments ³.....do....	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Other products and services.....do....	17,596	15,659	7,766	882	4,543	1,409	395	664	1,937
Value added in mining.....do....	12,517	10,963	5,482	563	3,054	1,139	310	415	1,554
Number of persons engaged, total.....	1,610	1,486	789	96	422	71	37	71	124
Production and development workers.....	1,331	1,227	662	64	355	63	29	54	104
All other employees.....	115	98	60	3	30	4	...	1	17
Proprietors and firm members.....	164	161	67	29	37	4	8	16	3
Performing manual labor.....	118	115	45	20	30	4	4	12	3
Man-hours worked by production and development workers, total.....1,000..	2,458	2,253	1,305	111	584	108	46	99	205
Underground (mining and development).....do....	...	...	...	...	...	...	...	...	...
Strip-pit, total.....do....	1,950	1,768	1,140	97	317	98	46	70	182
Stripping overburden.....do....	1,223	1,159	709	66	231	84	43	26	64
Mining.....do....	727	609	431	31	86	14	3	44	118
Auger mining.....do....	205	205	9	8	168	8	...	12	...
Surface (including tipplers, cleaning plants, shops and yards, and auxiliary units).....do....	7303	280	156	6	99	2	...	17	23
Man-hours spent on development and exploration work produced per man-hour (included above).....do....	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Net coal produced per man-hour.....short tons..	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Principal expenses designated below, total.....\$1,000..	11,006	9,950	5,064	549	3,060	618	206	453	1,056
Wages of production and development workers.....do....	5,511	4,954	2,657	226	1,411	333	121	206	557
Salaries of all other employees.....do....	557	441	287	6	130	15	...	3	116
Raw coal received for mechanical cleaning.....do....	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Raw coal received for resale without mechanical cleaning.....do....	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Supplies.....do....	2,991	2,693	1,185	197	909	202	54	146	298
Purchased fuel.....do....	1,160	1,099	586	71	314	46	31	51	61
Purchased electric energy.....do....	36	12	11	...	...	...	...	1	24
Contract work.....do....	751	751	338	49	296	22	...	46	...
Purchased machinery installed.....do....	2,552	1,932	1,419	26	324	20	...	143	620
Capital expenditures, total.....do....	2,411	1,791	1,255	24	354	20	...	138	620
Development and exploration of mineral property.....do....	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Cleaning plant construction and major alterations.....do....	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Other construction.....do....	86	86	12	...	73	1	...	...	...
New machinery and equipment.....do....	1,882	1,262	954	24	130	19	...	135	620
Used plant and equipment.....do....	443	443	289	...	151	...	...	3	...
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	164,043	129,621	73,135	10,225	34,929	4,383	930	6,019	34,422
Per production worker.....	123	106	110	160	98	70	32	111	331
Prime movers.....	142,179	126,557	71,238	10,225	33,762	4,383	930	6,019	15,622
Electric motors driven by purchased energy.....	21,864	3,064	1,897	...	1,167	...	...	...	18,800

See footnotes at end of table.

Table 3A.--DETAILED STATISTICS FOR THE BITUMINOUS COAL AND LIGNITE MINING INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES AND IN ALASKA: 1956--Con.

(For explanation of line captions, see INTRODUCTION)

Item	Bituminous coal and lignite mining contract services industry ¹								
	United States, total	East and South							West (Montana, Wyoming, and Washington)
		Total	Pennsylvania	Ohio	West Virginia	Kentucky	Alabama	Other States ²	
Horsepower rating of electric motors driven by energy generated at the establishment.....	6,276	...	...	...	...	...	...	...	6,276
Energy used.....million kwh equivalent..	353	317	173	21	84	12	12	14	36
Bituminous coal and lignite produced and used at same establishment.....1,000 short tons..	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Fuels purchased:									
Bituminous coal and lignite.....do....	2	...	...	...	...	...	...	...	2
Distillate fuel oil.....1,000 barrels..	132	125	68	9	34	5	6	3	7
Residual fuel oil.....do....	8	8	7	...	...	...	...	1	...
Gas (natural and manufactured).....million cu. ft..	...	...	...	...	...	...	...	...	...
Other fuels.....\$1,000..	381	354	178	22	104	14	6	30	27
Electric energy purchased.....million kwh..	2	...	...	...	...	...	...	...	2
Electric energy generated and used.....do....	...	...	...	...	...	...	...	...	...
Water intake, including mine water used.....million gallons..	67	(D)	(D)	...	...	...	...	...	(D)
Per production worker.....do....	0.05	(D)	(D)	...	...	...	...	...	(D)

D Withheld to avoid approximately disclosing figures for individual companies.

¹In general, contractors were requested to prepare one report for all mining contract services performed in the United States. These reports were classified on the basis of the principal industry for which the service was performed and the principal State in which the service was performed. However, separate reports were required for anthracite stripping contract services. With the exception of contractors engaged in shaft sinking and mine tunnelling, no contractors operated in more than one State. In the case of shaft sinking and tunnelling, two contractors operated in more than one State, affecting the statistics for Pennsylvania, Ohio, and West Virginia. Had the receipts for services been allocated to the State in which the service was performed, the difference in the State totals shown would be relatively small.

²Represents Indiana, 3 establishments; Iowa, 1; Missouri, 3; North Dakota, 1; Tennessee, 3; Arkansas, 3; Oklahoma, 1.

³For explanation of "net production" and "net shipments", see table 1, footnote 4.

⁴The coal mined by contractors is included in the production shown for the bituminous coal and lignite industries. A total of 6,297 thousand tons were mined by contractors at strip pits in the United States: In Pennsylvania, 2,392 thousand tons; in Ohio, 392 thousand; in West Virginia, 834 thousand; in Kentucky, 753 thousand; in Indiana, Iowa, Missouri, North Dakota, Tennessee, Alabama, Arkansas, and Oklahoma, 305 thousand; and in Montana, Wyoming, and Washington, 1,621 thousand. The production of auger-mined coal by contractors was 610 thousand tons, with 450 thousand tons mined in West Virginia, and the remainder in Pennsylvania, Ohio, Kentucky, and Tennessee.

⁵The figure for Kansas is included with the figure for Missouri.

⁶See table 1, footnote 7. Services performed for bituminous coal and lignite establishments include stripping overburden and mining coal, auger mining, shaft sinking and driving mine tunnels, drilling, cementing, and timbering. For a more detailed description of products and services, see table 5B.

⁷See table 1, footnote 12.

⁸Not computed, since expenditures for contract work exceed expenditures for wages of production and development workers.

⁹Cost of coal received for cleaning is included with the cost of supplies.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 3B.—NUMBER OF PRODUCTION AND DEVELOPMENT WORKERS ON ACTIVE DAYS, AND MAN-SHIFTS AND MAN-HOURS WORKED BY SUCH WORKERS IN THE BITUMINOUS COAL AND LIGNITE INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES, AND IN ALASKA: 1954

Industry, geographic division, and State	All departments				Department (underground)			
	Number of workers on active days ¹	Number of days worked	Man- shifts worked	Man- hours worked	Number of workers on active days ¹	Number of days worked	Man- shifts worked	Man- hours worked
			(1,000)	(1,000)			(1,000)	(1,000)
Bituminous coal and lignite industries, total.....	226,808	182	41,263	323,999	165,822	178	29,498	234,219
BITUMINOUS COAL INDUSTRY								
United States and Alaska, total.....	226,246	182	41,146	323,098	165,790	178	29,493	234,178
United States, total.....	225,885	182	41,061	322,410	165,601	178	29,450	233,827
Middle Atlantic (Pennsylvania).....	52,623	177	9,311	73,135	39,434	172	6,780	53,803
East North Central, total.....	33,788	177	5,993	46,662	18,531	161	2,981	23,589
Ohio.....	11,291	201	2,272	17,910	5,403	186	1,005	7,951
Indiana.....	5,067	176	894	6,764	2,352	158	372	2,935
Illinois.....	17,430	162	2,827	21,988	10,776	149	1,604	12,703
West North Central, total.....	2,225	179	398	3,076	763	144	110	839
Iowa.....	707	180	127	991	409	149	61	461
Missouri.....	963	183	177	1,364	292	144	42	325
Kansas.....	555	169	94	721	62	113	7	53
South Atlantic, total.....	80,635	190	15,322	120,177	63,298	189	11,972	94,791
Maryland.....	428	172	74	562	298	168	50	372
Virginia.....	12,520	177	2,222	17,324	9,934	175	1,743	13,634
West Virginia.....	67,669	192	13,024	102,276	53,048	192	10,177	80,770
Georgia.....	18	111	2	15	18	111	2	15
East South Central, total.....	45,971	181	8,329	65,954	35,954	178	6,412	51,267
Kentucky.....	33,065	180	5,947	47,333	26,051	178	4,626	37,094
Tennessee.....	4,613	175	809	6,325	3,590	174	623	4,964
Alabama.....	8,293	190	1,573	12,296	6,313	184	1,163	9,209
West South Central, total.....	1,964	167	328	2,594	1,247	162	202	1,616
Arkansas.....	594	143	85	668	398	136	54	433
Oklahoma.....	1,370	177	243	1,926	849	174	148	1,183
Mountain, total.....	7,954	157	1,253	9,821	5,883	154	907	7,232
Montana.....	364	137	50	398	243	136	33	268
Wyoming.....	1,651	124	204	1,590	1,115	107	119	953
Colorado.....	2,642	155	411	3,229	2,058	158	325	2,581
New Mexico.....	194	154	30	225	156	135	21	158
Arizona.....	25	160	4	28	21	143	3	23
Utah.....	3,078	180	554	4,351	2,290	177	406	3,249
Pacific (Washington and Oregon).....	725	175	127	991	491	175	86	690
Alaska.....	361	235	85	688	189	228	43	351
LIGNITE INDUSTRY								
United States, total.....	562	209	117	901	32	156	5	41
East and South (North Dakota, South Dakota, and Texas).....	540	209	113	875	15	133	2	21
West (Montana and California).....	22	182	4	26	17	176	3	20

See footnotes at end of table.

Table 3B.—NUMBER OF PRODUCTION AND DEVELOPMENT WORKERS ON ACTIVE DAYS, AND MAN-SHIFTS AND MAN-HOURS WORKED BY SUCH WORKERS IN THE BITUMINOUS COAL AND LIGNITE INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES, AND IN ALASKA: 1954—Continued

Industry, geographic division, and State	Department (strip pit)									
	Total				Stripping overburden			Mining coal		
	Number of workers on active days ¹	Number of days worked	Man- shifts worked (1,000)	Man- hours worked (1,000)	Number of workers on active days ¹	Man- shifts worked (1,000)	Man- hours worked (1,000)	Number of workers on active days ¹	Man- shifts worked (1,000)	Man- hours worked (1,000)
Bituminous coal and lignite industries, total.....	15,581	209	3,258	25,723	8,717	1,929	15,270	6,864	1,329	10,453
BITUMINOUS COAL INDUSTRY										
United States and Alaska, total..	15,239	209	3,187	25,178	8,575	1,896	15,011	6,664	1,291	10,167
United States, total.....	15,148	209	3,165	24,999	8,519	1,882	14,899	6,629	1,283	10,100
Middle Atlantic (Pennsylvania).....	3,904	214	836	6,618	2,415	549	4,204	1,489	287	2,414
East North Central, total.....	5,766	221	1,274	10,022	2,922	701	5,633	2,844	573	4,389
Ohio.....	3,099	231	717	5,743	1,641	397	3,230	1,458	320	2,513
Indiana.....	1,167	196	229	1,726	549	123	962	618	106	764
Illinois.....	1,500	219	328	2,553	732	181	1,441	768	147	1,112
West North Central, total.....	838	203	170	1,340	394	87	703	444	83	637
Iowa.....	170	247	42	341	85	23	192	85	19	149
Missouri.....	354	206	73	570	167	38	307	187	35	263
Kansas.....	314	175	55	429	142	26	204	172	29	225
South Atlantic, total.....	1,979	187	371	2,974	1,285	238	1,916	694	133	1,058
Maryland.....	93	183	17	132	58	10	78	35	7	54
Virginia.....	252	194	49	382	115	24	189	137	25	193
West Virginia.....	1,634	187	305	2,460	1,112	204	1,649	522	101	811
Georgia.....	...	...	...	...	...	...	...	...	...	...
East South Central, total.....	2,080	194	403	3,184	1,195	244	1,952	885	159	1,232
Kentucky.....	1,145	213	244	1,927	644	149	1,202	501	95	725
Tennessee.....	463	162	75	599	298	46	364	165	29	235
Alabama.....	472	178	84	658	253	49	386	219	35	272
West South Central, total.....	368	190	70	553	204	43	345	164	27	208
Arkansas.....	82	183	15	116	52	10	81	30	5	35
Oklahoma.....	286	192	55	437	152	33	264	134	22	173
Mountain, total.....	195	195	38	287	94	18	134	101	20	153
Montana.....	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Wyoming.....	127	213	27	202	68	13	96	59	14	106
Colorado.....	57	140	8	64	22	4	30	35	4	34
New Mexico.....	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Arizona.....	...	...	...	...	...	...	...	...	...	...
Utah.....	...	...	...	...	...	...	...	...	...	...
Pacific (Washington and Oregon).....	18	167	3	21	10	2	12	8	1	9
Alaska.....	91	...	22	179	56	14	112	35	8	67
LIGNITE INDUSTRY										
United States, total.....	342	242	71	545	142	33	259	200	38	286
East and South (North Dakota, South Dakota, and Texas).....	337	208	70	539	142	33	259	195	37	280
West (Montana and California).....	5	200	1	6	...	...	...	5	1	6

See footnotes at end of table.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 3B.—NUMBER OF PRODUCTION AND DEVELOPMENT WORKERS ON ACTIVE DAYS, AND MAN-SHIFTS AND MAN-HOURS WORKED BY SUCH WORKERS IN THE BITUMINOUS COAL AND LIGNITE INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES, AND IN ALASKA: 1954—Continued

Industry, geographic division, and State	Department							
	Auger				Surface (including tippie, cleaning plant, mine shops and yards, and auxiliary units)			
	Number of workers on active days ¹	Number of days worked	Man- shifts worked	Man- hours worked	Number of workers on active days ¹	Number of days worked	Man- shifts worked	Man- hours worked
			(1,000)	(1,000)			(1,000)	(1,000)
Bituminous coal and lignite industries, total.....	889	165	147	1,193	44,516	188	8,360	62,864
BITUMINOUS COAL INDUSTRY								
United States and Alaska, total.....	889	165	147	1,193	44,328	188	8,319	62,549
United States, total.....	889	165	147	1,193	44,247	188	8,299	62,391
Middle Atlantic (Pennsylvania).....	70	171	12	96	9,215	183	1,683	12,618
East North Central, total.....	143	147	21	174	9,348	184	1,717	12,877
Ohio.....	143	147	21	174	2,646	200	529	4,042
Indiana.....	...	...	...	...	1,548	189	293	2,103
Illinois.....	...	...	...	...	5,154	174	895	6,732
West North Central, total.....	...	...	...	...	624	189	118	897
Iowa.....	...	...	...	...	128	188	24	189
Missouri.....	...	...	...	...	317	196	62	469
Kansas.....	...	...	...	...	179	179	32	239
South Atlantic, total.....	546	172	94	768	14,812	195	2,885	21,644
Maryland.....	...	...	...	...	37	189	7	58
Virginia.....	59	102	6	49	2,275	186	424	3,259
West Virginia.....	487	181	88	719	12,500	196	2,454	18,327
Georgia.....	...	...	...	...	...	...	...	...
East South Central, total.....	130	154	20	155	7,807	191	1,494	11,348
Kentucky.....	130	154	20	155	5,739	184	1,057	8,157
Tennessee.....	...	...	...	...	560	198	111	762
Alabama.....	...	...	...	...	1,508	216	326	2,429
West South Central, total.....	...	...	...	...	349	160	56	425
Arkansas.....	...	...	...	...	114	140	16	119
Oklahoma.....	...	...	...	...	235	170	40	306
Mountain, total.....	...	...	...	...	1,876	164	308	2,302
Montana.....	...	...	...	...	(D)	(D)	(D)	(D)
Wyoming.....	...	...	...	...	409	142	58	435
Colorado.....	...	...	...	...	527	148	78	584
New Mexico.....	...	...	...	...	(D)	(D)	(D)	(D)
Arizona.....	...	...	...	...	4	250	1	5
Utah.....	...	...	...	...	788	188	148	1,102
Pacific (Washington and Oregon).....	...	...	...	...	216	176	38	280
Alaska.....	...	...	...	...	81	247	20	158
LIGNITE INDUSTRY								
United States, total.....	...	...	...	...	188	218	41	315
East and South (North Dakota, South Dakota, and Texas).....	...	...	...	...	188	218	41	315
West (Montana and California).....	...	...	...	...	...	...	...	...

D Withheld to avoid approximately disclosing figures for individual companies. ¹Represents the average number of men working on days when an operation was actively engaged in production or development work. Days that mines are active are days during which a mine is producing, or preparing to produce, raw coal; days that cleaning plants are active are days during which a plant is engaging, or preparing to engage, in cleaning activities. These averages are comparable with the annual employment series, "Average number of men working daily" published by the Bureau of Mines.

BITUMINOUS COAL AND LIGNITE MINING

12A-23

Table 3C.—SELECTED STATISTICS FOR THE BITUMINOUS COAL INDUSTRY IN THE UNITED STATES, BY COUNTY: 1954

(For explanation of column captions, see INTRODUCTION)

Geographic division, State, and county	Number of —				Net production of coal (1,000 short tons) ¹				Value of shipments (all prod- ucts and services) (\$1,000)
	Operating companies	Estab- lishments	Mines	Mechanical cleaning plants	Total	Under- ground operations	Strip-pit operations	Auger operations	
United States, total.....	5,913	6,643	6,784	628	386,864	288,932	93,464	4,468	2,040,200
Middle Atlantic									
Pennsylvania.....	1,341	1,545	1,581	96	72,058	55,111	16,698	249	446,866
Allegheny.....	83	96	91	8	6,706	5,978	3,728	(3)	58,169
Armstrong.....	74	86	89	3	2,176	918	31,258	(3)	9,697
Beaver.....	15	16	17	1	386	67	319	(3)	2,564
Bedford.....	24	25	25	...	73	473	(4)	...	402
Blair.....	6	6	7	...	166	35	3131	(3)	721
Butler.....	68	74	75	2	1,596	261	31,335	(3)	6,736
Cambria.....	151	173	178	21	9,159	8,541	618	...	57,136
Centre.....	47	49	54	...	902	78	3824	(3)	3,329
Clarion.....	51	54	57	...	1,814	183	31,631	(3)	7,775
Clearfield.....	163	180	193	5	4,706	1,529	3,159	18	20,603
Clinton.....	17	18	19	...	595	85	310	(3)	2,363
Elk.....	22	24	23	2	428	161	3267	(3)	2,094
Payette.....	55	68	68	6	6,610	6,172	438	...	68,321
Greene.....	19	21	22	6	9,364	49,364	(4)	...	54,466
Huntingdon.....	9	11	10	1	164	(3)	3164	...	2,079
Indiana.....	99	113	116	13	5,098	4,192	3906	(3)	30,059
Jefferson.....	82	83	82	2	1,377	642	3735	(3)	8,897
Lawrence.....	18	18	17	...	657	(3)	3657	...	2,957
Lycoming.....	6	7	7	...	32	432	(4)	...	145
McKean.....	3	3	3	...	93	...	93	...	412
Mercer.....	10	11	12	...	637	118	519	...	2,699
Somerset.....	176	189	192	5	2,575	1,737	3838	(3)	12,651
Tioga.....	13	13	14	...	71	471	(4)	...	389
Venango.....	9	9	9	1	495	(3)	3495	...	1,825
Washington.....	56	70	71	10	12,985	12,007	978	...	74,085
Westmoreland.....	122	124	126	8	3,049	2,890	159	...	15,555
East North Central									
Ohio.....	485	517	550	26	32,438	10,962	20,522	954	130,254
Athens.....	31	33	35	1	640	480	126	34	4,095
Belmont.....	51	54	58	9	6,152	4,926	1,206	20	24,167
Carroll.....	11	11	11	...	337	53	3284	(3)	1,248
Columbiana.....	35	37	40	1	1,302	48	1,220	34	5,820
Coshocton.....	29	29	29	...	872	157	715	...	3,170
Gallia.....	18	19	20	...	883	127	3756	(3)	3,072
Guernsey.....	13	13	15	...	416	65	3351	(3)	1,356
Harrison.....	18	21	25	2	6,233	(6)	66,233	(6)	32,704
Hocking.....	15	15	15	...	132	42	90	...	442
Jackson.....	15	16	16	1	479	44	435	...	1,905
Jefferson.....	42	44	48	2	4,345	2,127	2,007	211	16,272
Lawrence.....	12	12	12	...	412	19	393	...	1,441
Mahoning.....	13	14	15	...	652	...	652	...	2,499
Meigs.....	18	18	24	...	867	129	432	306	2,610
Morgan.....	5	5	6	1	1,022	(6)	61,022	(6)	3,118
Muskingum.....	32	33	34	1	1,046	213	3833	(3)	2,875
Noble.....	8	8	10	1	1,303	(6)	61,303	(6)	3,375
Perry.....	33	33	33	3	1,843	471	1,372	...	7,045
Stark.....	16	16	15	1	796	(5)	3796	...	2,920
Tuscarawas.....	66	66	68	1	2,213	916	1,271	26	8,317
Vinton.....	14	14	14	1	172	41	131	...	763
Indiana.....	81	98	99	27	13,378	4,888	8,490	...	69,313
Clay.....	9	10	10	1	964	...	964	...	3,927
Greene.....	9	10	10	2	807	25	782	...	4,494
Knox.....	4	5	5	2	1,414	41,414	(4)	...	5,199
Pike.....	7	7	7	2	2,154	31	2,123	...	7,293
Sullivan.....	12	12	12	5	1,400	585	815	...	5,589
Vermillion.....	14	4	4	1	153	(3)	3153	...	616
Vigo.....	10	12	12	7	2,703	42,703	(4)	...	9,984
Warrick.....	17	20	19	5	2,796	545	2,251	...	28,196
Illinois.....	156	198	193	69	41,974	25,520	16,454	...	179,920
Fulton.....	23	24	23	8	4,960	73	4,887	...	23,937
Gallatin.....	5	5	5	...	96	96	...	...	339
Grundy.....	3	3	3	1	289	(3)	3289	...	1,351
Knox.....	4	5	5	1	1,804	(3)	51,804	...	5,144
Macoupin.....	4	4	4	1	683	683	...	...	2,477
Madison.....	4	4	4	3	815	815	...	...	3,729
Peoria.....	14	14	14	2	421	53	368	...	1,853
Perry.....	9	10	10	4	3,291	(3)	53,291	...	13,194
Randolph.....	6	6	6	3	1,635	41,635	(4)	...	5,053
St. Clair.....	13	14	14	9	2,840	1,550	1,290	...	9,392
Saline.....	7	12	10	3	2,372	42,372	(4)	...	14,941
Sangamon.....	4	4	4	...	119	119	...	...	624
Schuyler.....	4	4	4	...	22	422	(4)	...	121
Vermilion.....	13	13	13	3	821	63	758	...	3,213
Williamson.....	25	28	27	14	5,833	4,032	1,801	...	23,558

See footnotes at end of table.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 3C.—SELECTED STATISTICS FOR THE BITUMINOUS COAL INDUSTRY IN THE UNITED STATES, BY COUNTY: 1954—Continued

Geographic division, State, and county	Number of —				Net production of coal (1,000 short tons) ¹				Value of shipments (all prod- ucts and services) (\$1,000)
	Operating companies	Estab- lishments	Mines	Mechanical cleaning plants	Total	Under- ground operations	Strip-pit operations	Auger operations	
West North Central									
Iowa.....	71	73	73	...	1,198	338	860	...	4,543
Appanoose.....	17	18	18	...	134	4134	(4)	...	637
Davis.....	3	3	3	...	81	(5)	581	...	290
Mahaska.....	11	11	11	...	148	(5)	5148	...	535
Marion.....	18	18	18	...	619	97	522	...	2,171
Monroe.....	10	10	10	...	106	4106	(4)	...	392
Wapello.....	4	4	4	...	49	(5)	549	...	196
Missouri.....	67	69	68	9	2,524	158	2,366	...	12,155
Adair.....	4	4	4	...	62	62	...	...	290
Barton.....	4	4	4	...	172	...	172	...	664
Bates.....	3	3	3	1	264	...	264	...	2,643
Henry.....	9	9	9	3	885	...	885	...	3,150
Lafayette.....	7	7	7	...	17	17	...	...	105
Randolph.....	8	8	8	3	497	(5)	5497	...	2,719
Kansas.....	32	34	34	4	1,377	26	1,351	...	6,679
Cherokee.....	7	7	7	2	636	...	636	...	2,540
Crawford.....	11	12	12	2	275	20	255	...	2,562
Linn.....	3	3	3	...	436	...	436	...	1,420
South Atlantic									
Maryland.....	77	79	80	...	431	237	194	...	2,119
Allegany.....	44	45	45	...	171	118	53	...	945
Garrett.....	33	34	35	...	260	119	141	...	1,174
Virginia.....	579	607	609	31	16,476	15,395	913	168	99,078
Buchanan.....	282	286	286	13	5,398	45,321	(4)	77	34,244
Dickenson.....	56	59	62	5	3,112	2,762	3350	(3)	18,657
Lee.....	31	32	31	1	650	526	3124	(3)	4,856
Russell.....	28	28	29	1	692	4692	(4)	...	3,564
Tazewell.....	39	42	41	5	2,549	2,549	...	...	13,010
Wise.....	142	152	153	5	4,048	3,541	3507	(3)	24,546
West Virginia.....	1,099	1,294	1,344	198	116,181	106,226	7,491	2,464	637,357
Barbour.....	35	37	39	3	3,039	2,127	744	168	12,535
Boone.....	34	40	45	9	5,812	5,571	3241	(3)	29,987
Braxton.....	8	8	6	1	46	46	...	...	320
Brooke.....	19	19	22	1	1,246	793	3453	(3)	5,264
Clay.....	6	6	6	1	595	595	...	...	3,063
Fayette.....	84	97	95	18	5,744	5,380	312	52	32,995
Gilmer.....	12	12	13	...	74	474	(4)	...	215
Grant.....	12	12	12	1	75	475	(4)	...	572
Greenbrier.....	69	70	74	3	1,118	857	261	...	5,897
Hancock.....	4	5	3	1	(D)	(D)	(D)	...	2,366
Harrison.....	96	109	115	6	7,420	4,850	1,747	823	30,046
Kanawha.....	52	69	79	9	7,762	7,155	404	203	36,468
Lewis.....	7	8	9	1	625	(D)	502	(D)	2,200
Logan.....	46	57	69	22	15,408	415,297	(4)	111	72,281
McDowell.....	106	130	130	24	16,278	15,728	490	60	142,823
Marion.....	21	26	25	6	8,660	48,660	(4)	...	41,640
Mason.....	10	10	9	1	186	4186	(4)	...	1,119
Mercer.....	43	45	48	9	1,374	1,129	3245	(3)	8,891
Mineral.....	9	9	10	...	63	463	(4)	...	278
Mingo.....	28	35	39	16	6,800	6,564	(7)	7236	30,975
Monongalia.....	61	67	67	9	6,819	46,819	(4)	...	32,224
Nicholas.....	55	57	57	8	4,278	3,805	246	227	20,890
Pocahontas.....	7	7	7	...	371	8371	(8)	(8)	1,571
Preston.....	92	94	92	...	2,046	1,543	464	39	8,593
Putnam.....	16	16	16	...	65	465	(4)	...	291
Raleigh.....	97	103	103	26	6,683	6,241	3442	(3)	36,317
Randolph.....	18	18	21	...	1,057	801	239	17	5,482
Taylor.....	21	21	23	...	453	176	3277	(3)	1,500
Tucker.....	6	6	6	...	105	4105	(4)	...	452
Upshur.....	29	30	29	1	1,128	954	174	...	4,953
Webster.....	11	14	14	2	590	9590	...	(9)	3,418
Wyoming.....	31	35	38	16	8,705	8,595	(7)	7110	48,501
Georgia (Walker County).....	5	5	5	...	9	9	...	...	43

See footnotes at end of table.

BITUMINOUS COAL AND LIGNITE MINING

12A-25

Table 3C.—SELECTED STATISTICS FOR THE BITUMINOUS COAL INDUSTRY IN THE UNITED STATES, BY COUNTY: 1954—Continued

Geographic division, State, and county	Number of —				Net production of coal (1,000 short tons) ¹				Value of shipments (all prod- ucts and services) (\$1,000)
	Operating companies	Estab- lishments	Mines	Mechanical cleaning plants	Total	Under- ground operations	Strip-pit operations	Auger operations	
East South Central									
Kentucky.....	1,086	1,145	1,159	81	56,791	45,410	10,784	597	267,461
Bell.....	54	56	54	4	1,225	987	238	...	6,484
Boyd.....	6	7	7	1	217	(⁵)	⁵ 217	...	848
Breathitt.....	21	21	21	2	792	4792	(⁴)	...	3,926
Butler.....	9	9	9	...	97	497	(⁴)	...	376
Carter.....	9	9	9	...	85	485	(⁴)	...	424
Clay.....	31	32	30	...	549	4549	(⁴)	...	5,535
Daviess.....	7	7	7	...	618	56	562	...	1,419
Floyd.....	90	99	101	5	4,590	4,590	...	...	38,455
Harlan.....	120	125	126	4	8,441	8,387	(⁷)	⁷ 54	47,868
Henderson.....	12	12	12	...	247	247	...	...	760
Hopkins.....	48	51	51	22	12,475	7,507	³ 4,968	(³)	40,622
Jackson.....	21	21	21	...	113	113	...	...	460
Johnson.....	61	61	61	1	316	316	...	...	1,484
Knott.....	34	34	35	1	612	⁹ 612	...	(⁹)	2,253
Knox.....	22	22	21	...	128	128	...	...	676
Laurel.....	13	13	13	...	106	74	32	...	374
Lee.....	6	6	6	...	91	91	...	...	416
Leslie.....	36	37	39	4	2,252	2,252	...	...	9,636
Letcher.....	140	150	151	5	3,859	⁹ 3,859	...	(⁹)	26,730
McCreary.....	7	8	8	...	314	⁴ 314	(⁴)	...	1,161
Morgan.....	10	10	10	...	21	8	13	...	100
Muhlenberg.....	26	27	28	7	5,111	3,103	2,008	...	14,765
Ohio.....	14	14	14	2	1,702	62	1,640	...	4,882
Perry.....	60	63	60	9	4,021	3,741	...	280	18,304
Pike.....	156	163	176	12	5,929	5,822	(⁷)	⁷ 107	28,764
Pulaski.....	14	14	14	...	61	⁴ 61	(⁴)	...	231
Rockcastle.....	7	7	8	...	61	⁴ 61	(⁴)	...	249
Whitley.....	21	21	21	...	277	65	212	...	1,009
Tennessee.....	405	409	411	7	6,348	4,823	1,489	36	26,462
Anderson.....	16	17	18	2	459	387	³ 72	(³)	2,122
Campbell.....	40	44	45	3	759	645	³ 114	(³)	4,208
Claiborne.....	14	14	14	1	357	139	218	...	1,505
Cumberland.....	13	13	13	...	103	32	71	...	377
Fentress.....	21	21	20	...	65	⁴ 65	(⁴)	...	249
Grundy.....	24	24	25	...	488	488	(⁴)	...	2,023
Hamilton.....	14	14	14	...	86	⁴ 86	(⁴)	...	302
Marion.....	155	155	153	...	1,837	⁴ 1,837	(⁴)	...	7,159
Morgan.....	17	17	16	1	468	181	287	...	1,999
Putnam.....	4	4	4	...	794	⁴ 794	(⁴)	...	3,143
Rhea.....	8	8	8	...	45	⁴ 45	(⁴)	...	196
Scott.....	26	26	26	...	539	232	³ 307	(³)	1,964
Sequatchie.....	27	27	27	...	242	⁴ 242	(⁴)	...	824
Van Buren.....	8	8	10	...	31	⁴ 31	(⁴)	...	110
Alabama.....	190	213	214	51	10,287	8,744	1,543	...	72,012
Bibb.....	3	3	3	2	41	⁴ 41	(⁴)	...	259
Blount.....	11	11	11	...	177	19	158	...	1,204
Jefferson.....	50	64	64	25	6,985	6,763	222	...	50,313
Marion.....	33	34	33	3	277	⁴ 277	(⁴)	...	2,450
Shelby.....	14	14	14	3	78	78	...	...	474
Tuscaloosa.....	13	14	15	3	622	134	488	...	2,659
Walker.....	62	65	65	14	2,080	1,446	634	...	14,484
West South Central									
Arkansas.....	33	33	33	...	480	255	225	...	3,692
Johnson.....	10	10	10	...	213	32	181	...	1,707
Sebastian.....	17	17	17	...	229	191	38	...	1,577
Oklahoma.....	40	42	43	4	1,916	740	1,176	...	12,069
Haskell.....	6	6	6	1	443	(⁵)	⁵ 443	...	3,386
Le Flore.....	13	13	13	1	287	35	252	...	2,014
Mountain									
Montana.....	26	27	27	5	1,492	(⁵)	⁵ 1,492	...	4,158
Musselshell.....	10	10	10	...	362	362	...	...	1,719
Wyoming.....	22	32	32	1	2,834	1,396	1,438	...	11,822
Carbon.....	4	4	4	...	233	(⁵)	⁵ 233	...	835
Sheridan.....	4	5	5	...	435	(⁵)	⁵ 435	...	1,371
Sweetwater.....	4	10	10	...	1,277	⁴ 1,277	(⁴)	...	7,333

See footnotes at end of table.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 3C.—SELECTED STATISTICS FOR THE BITUMINOUS COAL INDUSTRY IN THE UNITED STATES, BY COUNTY: 1954—Continued

Geographic division, State, and county	Number of —				Net production of coal (1,000 short tons) ¹				Value of shipments (all prod- ucts and services) (\$1,000)
	Operating companies	Estab- lishments	Mines	Mechanical cleaning plants	Total	Under- ground operations	Strip-pit operations	Auger operations	
Mountain—Continued									
Colorado.....	118	127	129	3	2,907	2,610	297	...	15,983
Boulder.....	4	4	4	...	34	34	...	...	205
Delta.....	7	7	7	...	43	43	...	...	237
Fremont.....	23	24	24	1	180	180	(4)	...	736
Garfield.....	6	6	6	...	30	30	...	...	192
Gunnison.....	8	9	9	...	267	267	...	...	1,400
Huerfano.....	9	9	10	...	56	56	...	...	322
La Plata.....	11	11	12	...	41	41	...	...	207
Las Animas.....	15	17	17	...	872	872	...	...	6,370
Mesa.....	9	9	9	...	38	38	...	...	228
Routt.....	9	12	12	2	445	167	278	...	1,926
Weld.....	6	8	8	...	627	627	...	...	2,614
New Mexico.....	23	24	24	1	125	125	(4)	...	732
Colfax.....	8	9	9	1	68	68	...	...	409
McKinley.....	7	7	7	...	35	14	21	...	184
Arizona (Apache and Navajo).....	3	3	3	...	11	11	...	...	68
Utah.....	48	54	55	4	5,009	5,009	...	...	32,924
Carbon.....	22	26	27	4	3,621	3,621	...	...	25,688
Emery.....	19	20	20	...	1,295	1,295	...	...	6,788
Iron.....	3	3	3	...	34	34	...	...	161
Pacific (Washington and Oregon)....	13	15	18	10	620	561	59	...	4,490
Washington:									
King.....	5	5	6	4	161	145	16	...	1,239
Lewis.....	3	3	4	2	30	11	19	...	208

Geographic division, State, and county	Number of persons engaged				Man-hours worked by production and development workers (1,000)	Principal expenses designated below (\$1,000)	
	Production and development workers	All other employees ²	Proprietors and firm members			Wages of pro- duction and development workers	Salaries of all other employees
			Total	Performing manual labor			
United States, total.....	197,819	18,994	7,539	5,324	322,410	757,175	108,474
Middle Atlantic							
Pennsylvania.....	45,633	4,864	1,720	1,064	73,135	173,029	28,635
Allegheny.....	3,950	393	96	67	6,548	16,637	2,560
Armstrong.....	864	72	99	63	1,342	3,190	330
Beaver.....	168	49	18	12	347	614	138
Bedford.....	142	12	35	20	175	266	71
Blair.....	121	7	8	6	155	354	21
Butler.....	586	65	90	60	1,159	2,114	284
Cambria.....	8,410	618	179	112	12,405	30,448	3,102
Centre.....	297	21	64	28	526	884	77
Clarion.....	648	48	62	33	1,353	2,197	208
Clearfield.....	2,144	190	217	138	3,517	6,827	691
Clinton.....	169	7	22	12	313	561	27
Elk.....	219	7	29	14	341	762	27
Fayette.....	5,436	489	57	38	9,020	21,778	2,819
Greene.....	6,636	474	16	7	10,998	26,817	2,996
Huntingdon.....	97	9	13	8	113	269	41
Indiana.....	2,822	174	121	79	4,793	11,632	932
Jefferson.....	909	72	113	72	1,403	2,707	291
Lawrence.....	96	10	12	5	206	445	68
Lycoming.....	24	...	10	7	35	69	...
McKean.....	24	2	2	2	58	105	8
Mercer.....	196	28	15	9	420	745	75
Somerset.....	2,307	158	211	119	2,924	6,519	682
Tioga.....	51	5	17	10	87	157	6
Venango.....	117	8	10	3	275	487	37
Washington.....	7,367	671	63	48	11,754	29,296	4,912
Westmoreland.....	1,827	174	137	88	2,855	7,126	948

See footnotes at end of table.

Table 3C.—SELECTED STATISTICS FOR THE BITUMINOUS COAL INDUSTRY IN THE UNITED STATES, BY COUNTY: 1954—Continued

Geographic division, State, and county	Number of persons engaged				Man-hours worked by production and development workers (1,000)	Principal expenses designated below (\$1,000)	
	Production and development workers	All other employees ²	Proprietors and firm members			Wages of pro- duction and development workers	Salaries of all other employees
			Total	Performing manual labor			
East North Central							
Ohio.....	10,015	1,117	581	440	17,910	41,181	6,594
Athens.....	452	17	37	30	630	1,408	56
Belmont.....	2,617	133	44	31	4,324	10,579	828
Carroll.....	177	13	10	6	307	518	72
Columbiana.....	331	47	36	20	719	1,342	226
Coshocton.....	298	22	33	29	599	1,134	80
Gallia.....	234	19	16	9	492	901	91
Guernsey.....	126	9	11	8	264	491	30
Harrison.....	1,452	126	14	10	2,375	6,238	799
Hocking.....	53	4	28	24	92	179	22
Jackson.....	131	14	16	16	226	501	46
Jefferson.....	1,303	118	63	48	2,413	5,705	767
Lawrence.....	78	34	21	15	194	280	65
Mahoning.....	127	23	10	9	305	684	126
Meigs.....	254	12	17	10	505	811	46
Morgan.....	77	11	9	9	167	526	63
Muskingum.....	267	17	36	25	471	1,038	94
Noble.....	230	38	4	2	419	1,069	198
Perry.....	571	38	62	52	903	2,529	214
Stark.....	221	29	12	8	508	1,002	186
Tuscarawas.....	819	82	70	51	1,610	3,531	454
Vinton.....	106	3	25	21	157	317	9
Indiana.....	4,153	591	86	48	6,764	17,663	3,951
Clay.....	307	38	11	7	469	1,276	196
Greene.....	280	48	8	6	379	1,239	255
Knox.....	450	44	2	...	744	2,001	290
Pike.....	442	83	4	3	722	1,943	573
Sullivan.....	441	45	19	16	695	1,869	260
Vermillion.....	77	4	4	2	105	270	36
Vigo.....	933	73	7	1	1,702	4,219	406
Warrick.....	750	90	12	6	1,203	2,979	551
Illinois.....	13,491	1,465	196	125	21,988	55,958	8,764
Fulton.....	855	170	33	31	1,764	4,571	831
Gallatin.....	74	2	9	6	103	156	6
Grundy.....	60	11	...	...	122	379	56
Knox.....	278	21	12	7	547	1,565	109
Macoupin.....	492	33	...	...	563	1,443	159
Madison.....	518	16	2	...	746	1,721	115
Peoria.....	121	20	22	12	219	428	92
Perry.....	793	70	6	2	1,394	3,436	382
Randolph.....	395	35	9	7	605	1,640	226
St. Clair.....	675	69	4	1	1,190	3,231	314
Saline.....	882	179	4	2	1,359	3,697	1,041
Sangamon.....	93	9	4	2	119	313	43
Schuyler.....	24	...	5	4	47	65	...
Vermilion.....	172	18	17	10	310	809	100
Williamson.....	1,948	100	29	17	3,168	8,307	567
West North Central							
Iowa.....	562	40	107	86	991	1,549	173
Appanoose.....	185	6	29	24	273	386	18
Davis.....	22	2	6	3	47	67	9
Mahaska.....	35	15	18	16	72	104	71
Marion.....	184	12	22	17	363	602	53
Monroe.....	73	2	15	10	126	190	7
Wapello.....	25	...	3	3	46	96	...
Missouri.....	781	69	69	53	1,364	2,874	485
Adair.....	75	...	1	1	124	207	...
Barton.....	31	2	2	2	61	122	20
Bates.....	69	6	4	4	126	311	46
Henry.....	179	24	8	8	304	846	210
Lafayette.....	43	2	5	2	56	69	5
Randolph.....	157	8	8	8	298	556	48
Kansas.....	423	74	38	33	721	1,770	535
Cherokee.....	165	49	8	7	318	829	309
Crawford.....	160	19	11	9	255	638	188
Linn.....	55	5	2	2	100	246	36

See footnotes at end of table.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 3C.—SELECTED STATISTICS FOR THE BITUMINOUS COAL INDUSTRY IN THE UNITED STATES, BY COUNTY: 1954—Continued

Geographic division, State, and county	Number of persons engaged				Man-hours worked by production and development workers (1,000)	Principal expenses designated below (\$1,000)	
	Production and development workers	All other employees ²	Proprietors and firm members			Wages of pro- duction and development workers	Salaries of all other employees
			Total	Performing manual labor			
South Atlantic							
Maryland.....	352	19	84	66	562	1,003	70
Allegany.....	161	10	56	42	256	437	33
Garrett.....	191	9	28	24	306	566	37
Virginia.....	10,730	990	842	583	17,324	34,763	4,733
Buchanan.....	3,824	189	417	297	6,066	10,959	714
Dickenson.....	1,666	127	79	45	2,743	5,572	613
Lee.....	654	13	35	19	942	2,079	46
Russell.....	467	31	35	18	684	1,440	182
Tazewell.....	1,662	24	60	43	2,757	6,523	149
Wise.....	2,420	276	207	153	4,069	8,114	1,197
West Virginia.....	61,518	5,538	1,062	726	102,276	251,318	31,083
Barbour.....	1,007	119	26	16	1,643	4,011	672
Boone.....	2,842	290	29	21	4,764	12,312	1,646
Braxton.....	56	5	9	7	77	123	21
Brooke.....	611	61	13	8	1,003	2,391	369
Clay.....	613	20	11	9	821	2,206	73
Fayette.....	4,244	321	91	63	7,105	17,681	1,686
Gilmer.....	53	6	17	12	76	92	18
Grant.....	127	5	7	4	192	280	16
Greenbrier.....	676	37	81	68	1,253	2,957	306
Hancock.....	85	4	2	...	143	282	15
Harrison.....	2,261	193	83	60	3,810	8,389	1,070
Kanawha.....	3,665	404	38	33	6,653	15,387	1,913
Lewis.....	126	6	4	4	225	372	8
Logan.....	6,826	552	30	24	11,474	30,647	3,415
McDowell.....	10,798	948	121	73	18,308	45,686	5,755
Marion.....	3,791	297	21	15	5,978	15,284	1,951
Mason.....	99	20	8	...	161	308	83
Mercer.....	1,189	63	36	23	1,735	4,139	328
Mineral.....	55	1	8	3	77	153	3
Mingo.....	3,379	307	19	11	5,414	14,139	1,319
Monongalia.....	2,495	222	55	33	4,215	10,427	1,368
Nicholas.....	2,402	160	36	25	4,002	9,801	827
Pocahontas.....	243	6	7	4	438	1,048	20
Preston.....	1,422	88	74	47	2,152	3,628	286
Putnam.....	57	...	20	12	90	129	...
Raleigh.....	4,780	391	106	81	7,537	18,623	2,147
Randolph.....	794	78	14	9	1,240	2,927	465
Taylor.....	202	12	21	11	309	504	40
Tucker.....	101	3	3	2	174	358	16
Upshur.....	557	38	21	12	1,019	1,850	135
Webster.....	461	53	10	7	742	1,694	212
Wyoming.....	4,642	408	14	9	8,000	20,674	2,321
Georgia (Walker County).....	9	...	5	4	15	19	...
East South Central							
Kentucky.....	29,416	2,371	1,610	1,192	47,333	105,369	12,030
Bell.....	967	46	88	73	1,395	3,250	234
Boyd.....	108	3	13	9	237	301	12
Breathitt.....	476	20	41	29	869	1,926	90
Butler.....	67	3	12	7	117	188	10
Carter.....	56	4	19	19	97	140	15
Clay.....	714	19	30	14	1,164	1,258	51
Daviess.....	159	10	4	...	319	590	41
Floyd.....	3,096	175	104	60	5,241	11,953	873
Harlan.....	6,545	640	170	150	10,418	25,036	3,391
Henderson.....	171	10	12	5	326	423	33
Hopkins.....	3,138	221	48	25	5,255	13,031	1,318
Jackson.....	135	8	34	23	220	222	14
Johnson.....	262	11	111	86	342	438	29
Knott.....	245	2	61	50	371	785	12
Knox.....	94	1	38	35	152	205	3
Laurel.....	95	...	14	12	136	179	1
Lee.....	120	5	10	4	162	219	13
Leslie.....	1,338	59	60	28	2,235	3,258	166
Letcher.....	2,202	204	248	205	3,365	7,427	1,107
McCreary.....	170	...	7	6	314	542	...
Morgan.....	19	...	14	14	21	29	...
Muhlenberg.....	1,570	69	27	20	2,343	5,864	363
Ohio.....	339	13	20	17	590	1,397	86
Perry.....	2,503	154	58	39	3,699	8,448	645
Pike.....	3,784	280	218	151	5,974	13,793	1,449

See footnotes at end of table.

Table 3C.--SELECTED STATISTICS FOR THE BITUMINOUS COAL INDUSTRY IN THE UNITED STATES, BY COUNTY: 1954--Continued

Geographic division, State, and county	Number of persons engaged				Man-hours worked by production and development workers (1,000)	Principal expenses designated below (\$1,000)	
	Production and development workers	All other employees ²	Proprietors and firm members			Wages of pro- duction and development workers	Salaries of all other employees
			Total	Performing manual labor			
East South Central--Continued							
Kentucky--Continued							
Pulaski.....	66	...	18	12	92	116	...
Rockcastle.....	43	...	16	13	69	78	...
Whitley.....	118	10	26	17	190	353	36
Tennessee.....	3,960	173	503	422	6,325	12,201	928
Anderson.....	438	13	17	16	519	1,273	71
Campbell.....	715	27	45	35	1,156	2,471	115
Claiborne.....	246	9	16	11	362	744	25
Cumberland.....	62	...	15	13	80	122	...
Fentress.....	61	1	26	23	82	105	1
Grundy.....	300	44	33	25	495	977	222
Hamilton.....	40	...	21	20	73	99	...
Marion.....	1,139	21	189	167	1,894	3,146	114
Morgan.....	208	14	28	21	327	793	75
Putnam.....	257	15	...	...	520	1,206	107
Rhea.....	26	...	11	9	38	53	...
Scott.....	200	9	33	21	383	683	38
Sequatchie.....	176	...	31	29	279	369	...
Van Buren.....	29	...	9	9	38	42	...
Alabama.....	7,812	876	236	169	12,296	26,443	6,149
Bibb.....	50	3	1	1	79	182	6
Blount.....	96	10	8	5	172	283	64
Jefferson.....	5,738	752	49	29	9,076	19,782	5,550
Marion.....	261	15	64	55	390	669	80
Shelby.....	130	4	17	13	195	257	5
Tuscaloosa.....	293	15	14	11	445	1,044	66
Walker.....	1,197	77	72	50	1,869	4,119	378
West South Central							
Arkansas.....	430	27	46	41	668	1,564	119
Johnson.....	137	10	15	11	181	477	60
Sebastian.....	229	17	24	23	402	880	59
Oklahoma.....	1,112	53	33	21	1,926	4,238	256
Haskell.....	254	7	3	...	448	982	28
Le Flore.....	110	7	12	9	184	453	43
Mountain							
Montana.....	290	48	36	32	398	868	200
Musselshell.....	251	33	18	16	333	745	142
Wyoming.....	1,138	84	20	19	1,590	3,916	379
Carbon.....	64	3	2	2	98	251	18
Sheridan.....	109	6	2	1	174	393	13
Sweetwater.....	808	57	...	...	1,053	2,692	271
Colorado.....	2,431	187	177	136	3,229	7,928	1,007
Boulder.....	36	7	2	...	61	119	20
Delta.....	46	7	11	11	47	118	10
Fremont.....	68	9	59	49	120	197	25
Garfield.....	26	...	9	6	41	84	...
Gunnison.....	217	12	8	5	279	722	57
Huerfano.....	39	9	18	17	70	126	29
La Plata.....	31	1	15	9	53	107	...
Las Animas.....	1,204	67	22	14	1,455	3,679	482
Mesa.....	35	...	14	12	54	119	...
Routt.....	256	22	8	5	278	783	79
Weld.....	343	18	...	...	530	1,360	86
New Mexico.....	147	12	24	14	225	350	28
Colfax.....	59	4	10	9	82	177	16
McKinley.....	27	1	5	1	43	76	2
Arizona (Apache and Navajo).....	21	...	1	1	28	27	...
Utah.....	2,735	356	54	43	4,351	10,533	2,188
Carbon.....	2,088	254	15	14	3,316	8,087	1,610
Emery.....	602	93	28	22	938	2,293	529
Pacific (Washington and Oregon)...	660	40	9	6	991	2,611	167
Washington:							
King.....	145	10	4	3	252	682	32
Lewis.....	24	...	3	1	36	90	...

See footnotes at end of table.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 30.—SELECTED STATISTICS FOR THE BITUMINOUS COAL INDUSTRY IN THE UNITED STATES, BY COUNTY: 1954—Continued

Geographic division, State, and county	Principal expenses designated below (\$1,000)				Purchased machinery installed (\$1,000)	Capital expenditures (\$1,000)		Aggregate horse- power rating of power equipment
	Supplies and raw coal received for mechanical cleaning or resale	Fuel purchased	Electric energy purchased	Contract work		Total	Machinery and equipment only	
United States, total.....	523,251	15,712	47,512	54,231	118,481	115,761	78,227	6,092,894
Middle Atlantic								
Pennsylvania.....	112,807	4,624	10,887	17,124	27,482	21,028	15,088	1,627,690
Allegheny.....	24,999	279	1,167	606	1,503	1,631	912	134,857
Armstrong.....	2,753	337	167	1,015	408	294	268	64,649
Beaver.....	862	83	21	83	148	143	128	16,904
Bedford.....	47	1	18	...	5	2	...	2,049
Blair.....	48	30	18	4	71	42	37	4,961
Butler.....	1,531	330	46	379	994	966	812	42,319
Cambria.....	8,471	505	2,117	1,792	4,092	2,781	2,065	235,001
Centre.....	458	222	8	607	317	324	254	25,531
Clarion.....	1,778	381	33	346	443	232	196	49,935
Clearfield.....	3,456	735	251	3,569	1,930	1,529	1,331	128,373
Clinton.....	371	113	4	500	397	297	272	21,109
Elk.....	556	80	21	77	181	66	66	12,547
Fayette.....	29,550	43	1,265	937	2,135	1,425	1,272	135,311
Greene.....	9,748	73	1,748	372	5,111	2,500	1,585	158,094
Huntingdon.....	1,249	20	7	275	39	44	38	4,886
Indiana.....	8,737	289	963	2,267	1,799	3,083	1,682	134,232
Jefferson.....	3,658	223	141	208	600	705	591	48,281
Lawrence.....	623	95	3	698	264	237	227	14,449
Lycoming.....	35	4	...	...	98	95	89	1,060
McKean.....	60	34	1	...	91	95	83	3,117
Mercer.....	155	40	60	433	165	86	59	8,884
Somerset.....	1,457	302	379	325	574	466	392	84,983
Tioga.....	35	6	2	60	12	11	9	568
Venango.....	351	109	9	283	136	120	105	12,636
Washington.....	10,009	203	1,942	1,208	4,819	2,187	1,830	210,004
Westmoreland.....	1,798	78	493	723	1,117	1,638	756	71,591
East North Central								
Ohio.....	29,256	3,339	2,314	3,990	8,720	7,529	6,502	496,066
Athens.....	1,531	46	74	9	407	394	388	12,553
Belmont.....	3,553	182	555	1,588	1,446	1,464	1,052	55,775
Carroll.....	57	92	13	14	72	78	72	9,476
Columbiana.....	2,016	390	17	455	661	618	587	30,814
Coshocton.....	308	145	40	103	369	327	294	15,562
Gallia.....	911	84	19	108	213	214	210	12,535
Guernsey.....	205	55	11	181	63	12	8	13,163
Harrison.....	12,540	324	546	335	794	384	384	70,659
Hocking.....	20	29	6	21	47	13	13	4,678
Jackson.....	149	29	44	40	175	137	65	8,590
Jefferson.....	2,429	555	327	398	971	816	771	66,267
Lawrence.....	277	88	4	43	107	94	94	8,712
Mahoning.....	439	127	33	30	63	49	43	14,545
Meigs.....	96	134	22	148	744	734	734	13,538
Morgan.....	489	36	88	58	223	258	78	13,495
Muskingum.....	448	103	78	26	74	227	66	18,400
Noble.....	608	119	76	249	342	107	106	27,228
Perry.....	984	142	178	17	477	294	273	23,972
Stark.....	870	181	22	85	327	301	294	17,683
Tuscarawas.....	1,122	353	143	62	673	600	591	44,001
Vinton.....	116	49	12	...	19	37	8	7,995
Indiana.....	27,148	465	1,841	183	6,849	6,761	5,636	237,308
Clay.....	656	139	98	...	21	50	21	25,241
Greene.....	1,649	61	157	...	192	279	191	20,326
Knox.....	949	21	202	...	336	97	96	21,985
Pike.....	650	51	259	49	365	363	275	34,433
Sullivan.....	1,917	32	216	13	374	272	137	19,318
Vermillion.....	66	4	33	...	191	204	184	3,838
Vigo.....	2,215	41	373	104	635	647	596	33,137
Warrick.....	18,288	45	446	13	4,654	4,766	4,066	50,548
Illinois.....	42,639	747	5,722	2,645	10,664	11,658	5,950	578,721
Fulton.....	6,456	126	760	17	1,358	1,596	213	76,783
Gallatin.....	83	...	15	10	13	13	13	1,679
Grundy.....	140	15	69	...	105	26	26	6,328
Knox.....	783	59	216	...	129	229	128	22,286
Macoupin.....	286	1	96	...	2	32	2	5,088
Madison.....	1,075	...	106	...	36	59	36	10,629
Peoria.....	233	67	31	16	32	40	16	7,049
Perry.....	3,306	30	425	150	819	1,109	123	42,158
Randolph.....	813	36	209	...	242	409	235	35,046
St. Clair.....	1,481	56	341	363	331	560	221	26,353
Saline.....	6,795	59	373	...	436	672	436	48,970
Sangamon.....	65	8	21	2	40	38	38	2,951
Schuyler.....	7	6	...	...	2	...	...	1,257
Vermilion.....	499	19	192	...	75	146	30	18,540
Williamson.....	4,525	166	770	2,087	2,025	3,689	1,597	66,028

See footnotes at end of table.

BITUMINOUS COAL AND LIGNITE MINING

12A-31

Table 3C.—SELECTED STATISTICS FOR THE BITUMINOUS COAL INDUSTRY IN THE UNITED STATES, BY COUNTY: 1954—Continued

Geographic division, State, and county	Principal expenses designated below (\$1,000)				Purchased machinery installed (\$1,000)	Capital expenditures (\$1,000)		Aggregate horse- power rating of power equipment
	Supplies and raw coal received for mechanical cleaning or resale	Fuel purchased	Electric energy purchased	Contract work		Total	Machinery and equipment only	
West North Central								
Iowa.....	438	195	86	216	471	419	383	31,775
Appanoose.....	38	11	14	14	30	33	27	3,905
Davis.....	21	15	1	99	17	11	11	1,371
Mahaska.....	44	36	1	22	19	17	17	6,744
Marion.....	224	91	58	69	359	316	294	13,320
Monroe.....	42	10	7	12	1	...	...	1,191
Wapello.....	43	20	3	...	12	12	12	1,555
Missouri.....	3,391	128	536	13	724	281	243	60,929
Adair.....	36	...	13	...	8	9	9	580
Barton.....	83	9	39	1	1	1	1	6,340
Bates.....	1,576	5	68	...	81	19	19	4,155
Henry.....	488	39	228	8	200	71	61	21,395
Lafayette.....	11	...	2	...	...	...	...	241
Randolph.....	824	12	90	...	238	13	12	8,220
Kansas.....	1,975	109	224	158	256	314	137	49,017
Cherokee.....	387	73	77	154	106	236	77	21,877
Crawford.....	1,388	21	91	...	25	46	28	15,572
Linn.....	170	8	56	...	121	29	29	5,941
South Atlantic								
Maryland.....	331	80	23	28	171	145	137	15,965
Allegany.....	115	31	16	15	110	99	91	8,223
Garrett.....	108	49	7	13	61	46	46	7,742
Virginia.....	34,244	429	1,714	2,390	3,524	4,731	3,019	201,139
Buchanan.....	12,686	96	496	1,446	1,139	1,407	870	47,478
Dickinson.....	7,053	94	283	200	355	390	370	29,277
Lee.....	1,696	43	78	19	241	239	239	11,456
Russell.....	1,010	10	66	7	83	33	33	8,836
Tazewell.....	2,705	15	466	64	84	206	77	25,665
Wise.....	9,009	170	315	649	1,613	2,445	1,421	76,982
West Virginia.....	173,326	2,807	14,273	18,743	39,616	42,495	26,381	1,519,264
Barbour.....	3,283	153	214	524	690	577	493	39,868
Boone.....	7,079	49	662	963	2,465	2,146	894	66,276
Braxton.....	146	6	2	16	86	104	86	1,067
Brooke.....	683	90	85	223	255	270	246	30,795
Clay.....	569	8	109	3	124	127	116	13,580
Fayette.....	5,994	108	806	451	2,563	1,881	824	114,350
Gilmer.....	50	5	3	2	5	5	5	410
Grant.....	262	14	14	...	8	9	9	2,308
Greenbrier.....	1,548	98	82	147	278	279	241	21,667
Hancock.....	1,899	28	12	...	9	...	...	4,271
Harrison.....	6,412	481	515	1,417	2,672	2,590	1,959	97,467
Kanawha.....	6,568	161	800	869	2,485	2,298	1,926	76,364
Lewis.....	426	82	1	1,063	130	466	129	12,015
Logan.....	15,913	428	1,538	1,091	2,113	2,759	1,742	153,445
McDowell.....	64,531	119	3,220	5,623	11,636	13,838	8,020	257,499
Marion.....	5,710	45	986	2,733	4,553	5,146	2,275	87,968
Mason.....	556	24	19	9	38	52	38	8,675
Mercer.....	1,945	35	178	771	330	327	276	19,661
Mineral.....	26	10	...	14	35	38	35	1,702
Mingo.....	6,080	49	631	277	2,134	2,322	2,078	56,040
Monongalia.....	9,394	54	788	355	695	1,062	608	64,685
Nicholas.....	3,810	116	478	242	1,001	1,245	758	39,670
Pocahontas.....	215	44	35	3	38	53	43	3,125
Preston.....	2,291	172	133	401	333	430	307	37,392
Putnam.....	31	5	1	17	34	32	32	1,468
Raleigh.....	6,538	124	1,131	57	1,066	675	611	129,721
Randolph.....	555	57	116	293	376	220	208	20,007
Taylor.....	309	89	10	125	212	212	210	9,800
Tucker.....	79	19	7	57	29	89	4	4,291
Upshur.....	1,367	93	71	217	475	623	432	14,698
Webster.....	532	6	122	109	8	73	8	14,008
Wyoming.....	11,014	18	1,240	472	2,347	1,898	1,379	92,296
Georgia (Walker County).....	10	...	...	...	...	...	...	...

See footnotes at end of table.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 3C.—SELECTED STATISTICS FOR THE BITUMINOUS COAL INDUSTRY IN THE UNITED STATES, BY COUNTY: 1954—Continued

Geographic division, State, and county	Principal expenses designated below (\$1,000)				Purchased machinery installed (\$1,000)	Capital expenditures (\$1,000)		Aggregate horse- power rating of power equipment
	Supplies and raw coal received for mechanical cleaning or resale	Fuel purchased	Electric energy purchased	Contract work		Total	Machinery and equipment only	
East South Central								
Kentucky.....	65,367	1,352	5,537	3,742	9,933	11,564	8,340	552,510
Bell.....	1,299	48	148	42	140	271	116	19,924
Boyd.....	142	52	10	...	101	101	23	3,111
Breathitt.....	791	4	116	94	384	400	387	9,587
Butler.....	42	6	4	3	12	25	13	1,313
Carter.....	55	...	10	...	8	17	8	1,029
Clay.....	3,138	26	47	4	122	113	96	5,037
Daviess.....	314	92	34	278	952	1,057	952	13,273
Floyd.....	15,315	28	507	24	1,442	783	722	41,868
Harlan.....	7,858	73	950	167	962	1,137	936	110,619
Henderson.....	54	17	15	...	13	10	7	1,814
Hopkins.....	8,058	212	1,082	1,199	1,626	1,882	1,368	92,551
Jackson.....	72	72	2	...	42	61	41	792
Johnson.....	378	7	23	21	18	13	9	2,985
Knott.....	400	7	33	35	26	27	16	3,930
Knox.....	242	2	7	3	10	6	6	750
Laurel.....	47	13	2	8	2	9	2	3,341
Lee.....	50	16	9	...	21	21	21	2,828
Leslie.....	1,747	15	205	84	140	218	150	8,527
Letcher.....	11,110	94	405	120	819	890	798	34,785
McCreary.....	209	21	24	61	66	66	66	3,825
Morgan.....	13	2	...	12	23	6	6	752
Muhlenberg.....	2,187	87	406	326	248	446	195	48,685
Ohio.....	682	87	159	1	177	104	104	20,573
Perry.....	3,672	79	401	321	506	1,535	460	41,502
Pike.....	5,533	88	724	565	783	1,067	583	53,619
Pulaski.....	19	15	1	6	33	27	26	2,468
Rockcastle.....	42	3	5	1	6	6	5	920
Whitley.....	155	71	7	183	170	164	144	5,767
Tennessee.....								
Anderson.....	203	14	40	11	73	42	37	6,526
Campbell.....	730	35	66	113	111	111	110	15,342
Claiborne.....	233	57	18	...	100	100	100	9,860
Cumberland.....	58	17	2	...	...	...	...	2,120
Fentress.....	54	4	3	3	4	6	3	994
Grundy.....	419	11	35	67	63	49	46	4,547
Hamilton.....	44	17	...	22	38	38	38	1,153
Marion.....	1,175	75	76	162	201	259	179	9,160
Morgan.....	277	68	17	81	131	186	171	9,262
Putnam.....	468	17	35	6	92	97	92	5,538
Rhea.....	42	9	...	20	20	20	20	823
Scott.....	445	58	19	122	262	241	184	10,225
Sequatchie.....	121	29	6	...	24	26	23	3,482
Van Buren.....	18	...	1	...	...	...	...	513
Alabama.....								
Bibb.....	30	...	24	11	...	...	...	1,031
Blount.....	316	29	31	29	266	238	225	5,376
Jefferson.....	8,238	104	1,743	684	3,884	3,418	1,942	152,745
Marion.....	836	32	39	20	19	24	19	4,285
Shelby.....	52	9	19	...	15	30	15	1,500
Tuscaloosa.....	396	153	21	49	744	386	323	19,717
Walker.....	3,396	144	153	551	372	649	321	34,000
West South Central								
Arkansas.....	644	43	96	17	190	81	68	20,706
Johnson.....	397	30	36	17	165	59	47	13,221
Sebastian.....	209	10	48	...	22	21	21	4,760
Oklahoma.....	2,130	162	223	573	346	219	211	60,368
Haskell.....	539	41	41	462	33	35	33	9,185
Le Flore.....	504	26	38	68	65	56	53	15,878
Mountain								
Montana.....	197	13	66	980	228	232	210	16,072
Musselshell.....	157	7	57	1	223	227	207	8,676
Wyoming.....	1,789	92	212	857	70	55	53	114,994
Carbon.....	78	19	19	...	12	1	1	12,460
Sheridan.....	482	58	13	14	11	11	11	6,892
Sweetwater.....	1,079	5	146	229	22	25	25	87,203

See footnotes at end of table.

Table 3C.—SELECTED STATISTICS FOR THE BITUMINOUS COAL INDUSTRY IN THE UNITED STATES, BY COUNTY: 1954—Continued

Geographic division, State, and county	Principal expenses designated below (\$1,000)				Purchased machinery installed (\$1,000)	Capital expenditures (\$1,000)		Aggregate horse- power rating of power equipment
	Supplies and raw coal received for mechanical cleaning or resale	Fuel purchased	Electric energy purchased	Contract work		Total	Machinery and equipment only	
Mountain—Continued								
Colorado.....	1,956	78	430	145	437	543	410	76,390
Boulder.....	25	...	14	...	1	1	1	665
Delta.....	26	2	15	...	3	3	1	2,349
Fremont.....	51	7	31	...	30	47	25	5,898
Garfield.....	25	3	2	20	9	46	5	782
Gunnison.....	133	18	46	1	65	80	73	4,730
Huerfano.....	20	1	21	...	4	9	5	2,082
La Plata.....	29	...	6	...	2	2	2	737
Las Animas.....	991	5	148	...	146	146	146	16,459
Mesa.....	23	2	11	...	3	3	3	1,884
Routt.....	243	24	25	13	30	33	30	18,190
Weld.....	246	...	101	7	36	36	36	8,269
New Mexico.....	48	6	37	28	25	26	20	10,047
Colfax.....	23	2	33	...	2	2	2	7,078
McKinley.....	15	4	2	26	11	15	9	1,336
Arizona (Apache and Navajo).....	9	...	...	...	...	...	...	37
Utah.....	7,070	104	814	296	2,309	1,689	1,545	96,406
Carbon.....	6,273	69	566	240	1,596	1,225	1,092	72,751
Emery.....	754	30	240	56	693	462	452	22,116
Iron.....	21	...	5	...	16	...	...	348
Pacific (Washington and Oregon).....	848	42	127	144	42	44	39	26,719
Washington:								
King.....	251	33	26	45	10	...	...	5,436
Lewis.....	42	8	1	1	9	8	5	2,120

¹See table 1, footnote 4. For net shipments by county, see table 5C.²United States and State totals include, but county detail, in general, excludes figures for separately reported central offices.³Auger production is included with strip-pit production.⁴Strip-pit production is included with underground production.⁵Underground production is included with strip-pit production.⁶Underground and auger production is included with strip-pit production.⁷Strip-pit production is included with auger production.⁸Strip-pit and auger production are included with underground production.⁹Auger production is included with underground production.

Table 4A.—DETAILED STATISTICS FOR THE BITUMINOUS COAL AND LIGNITE MINING

(For explanation of line

Item	All types of establishments	Bituminous coal and lignite industries						
		Type of establishment						
		Producing establishments					Non-producing establishments	
		Total	Mines only	Mines with cleaning plant	Cleaning plants only	Tipples only		
1 Number of operating companies.....	6,104	6,237	5,688	421	46	82		38
2 Number of establishments.....	6,855	6,652	5,948	570	49	85		51
3 Number of mines.....	6,844	6,793	6,166	627	...	...		51
4 Number of mechanical cleaning plants.....	628	619	...	570	49	...		9
5 Net production of bituminous coal and lignite, total.....1,000 short tons..	391,109	391,109	183,654	207,455	xxx	xxx	xxx	xxx
6 From underground operations.....do....	288,980	288,980	119,415	169,565	xxx	xxx	xxx	xxx
7 From strip-pit operations.....do....	97,661	97,661	60,610	37,051	xxx	xxx	xxx	xxx
8 From auger operations.....do....	4,468	4,468	3,629	839	xxx	xxx	xxx	xxx
9 Value of shipments.....\$1,000..	2,068,183	2,050,587	789,489	1,065,715	164,809	30,574	...	...
10 Value added in mining.....do....	1,418,384	1,406,144	608,907	777,734	14,759	4,744	(³)	(³)
11 Number of persons engaged, total.....	226,593	224,761	108,495	113,852	1,810	604		222
12 Production and development workers.....	199,655	198,176	93,253	102,778	1,659	486		148
13 All other employees.....	19,178	19,009	7,848	10,940	144	77		54
14 Proprietors and firm members.....	7,760	7,576	7,394	134	7	41		20
15 Performing manual labor.....	5,485	5,354	5,275	57	3	19		13
16 Man-hours worked by production and development workers....1,000..	325,769	323,026	151,470	167,875	2,902	779		285
17 Net coal produced per man-hour.....short tons..	1.20	1.21	1.21	1.24	xxx	xxx	xxx	xxx
18 Principal expenses designated below, total.....\$1,000..	1,521,275	1,508,972	539,388	782,385	159,655	27,544	1,297	1,297
19 Wages of production and development workers.....do....	764,863	758,762	326,329	423,588	7,403	1,442	590	590
20 Salaries of all other employees.....do....	109,442	108,562	40,783	66,715	813	251	323	323
21 Raw coal received for mechanical cleaning.....do....	203,953	203,953	xxx	78,365	125,588	xxx	...	...
22 Raw coal received for resale without mechanical cleaning.....do....	62,065	62,065	13,386	4,059	19,338	25,282	...	...
23 Supplies.....do....	260,851	257,712	104,071	149,887	3,423	331	148	148
24 Purchased fuel.....do....	17,111	15,947	11,982	3,889	39	37	4	4
25 Purchased electric energy.....do....	47,802	47,567	15,890	30,077	1,484	116	199	199
26 Contract work.....do....	55,188	54,404	26,947	25,805	1,567	85	33	33
27 Purchased machinery installed.....do....	121,640	118,914	54,398	62,537	1,336	643	174	174
28 Capital expenditures, total.....do....	118,811	116,119	46,092	66,638	2,725	664	281	281
29 Development and exploration of mineral property.....do....	3,601	3,570	1,853	1,695	20	2	31	31
30 Cleaning plant construction and major alterations.....do....	23,187	23,087	1,130	19,978	1,970	9	100	100
31 Other construction.....do....	10,981	10,813	3,158	7,525	95	35	82	82
32 New machinery and equipment.....do....	66,206	64,256	31,137	32,444	532	143	68	68
33 Used plant and equipment.....do....	14,836	14,393	8,814	4,996	108	475	...	...
34 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	6,331,527	6,129,493	3,120,431	2,905,396	92,098	11,568	37,991	37,991
35 Per production worker.....	32	31	33	28	56	24	257	257
36 Prime movers.....	2,656,250	2,501,330	1,845,037	639,520	11,477	5,296	12,741	12,741
37 Electric motors driven by purchased energy.....	3,675,277	3,628,163	1,275,394	2,265,876	80,621	6,272	25,250	25,250
38 Horsepower rating of electric motors driven by energy generated at the establishment.....	123,484	117,208	64,197	53,011	...	...	...	...
39 Energy used.....million kwh equivalent..	15,351	14,976	7,448	7,333	180	15	22	22
40 Bituminous coal and lignite produced and used at same establishment.....1,000 short tons..	761	761	282	470	9	xxx	xxx	xxx
Fuels purchased:								
41 Bituminous coal and lignite.....do....	77	75	21	54	...	...	...	...
42 Distillate fuel oil.....1,000 barrels..	2,042	1,910	1,606	300	3	1	...	...
43 Residual fuel oil.....do....	78	70	65	5	...	...	...	...
44 Gas (natural and manufactured).....million cu. ft..	507	506	366	126	14	...	1	1
45 Other fuels.....\$1,000..	6,012	5,629	4,351	1,235	10	33	2	2
46 Electric energy purchased.....million kwh..	3,628	3,605	1,060	2,441	99	5	21	21
47 Electric energy generated and used.....do....	132	132	50	82	...	...	...	...
48 Water intake, including mine water used.....million gallons..	29,408	29,337	2,532	22,145	4,660	...	4	4
49 Per production worker.....do....	0.15	0.15	0.03	0.22	2.81	...	0.03	0.03

See footnotes at end of table.

INDUSTRIES IN THE UNITED STATES, BY TYPE OF OPERATION: 1954

captions, see INTRODUCTION)

Bituminous coal and lignite industries—Continued										
Producing mines (with or without mechanical cleaning plant)										
Total	Strip-pit mines		Combination strip-pit and underground mines		Underground mines		Auger mines (without cleaning plant)	Combination strip-pit and auger mines		
	Without cleaning plant	With cleaning plant	Without cleaning plant	With cleaning plant	Without cleaning plant	With cleaning plant		Without cleaning plant	With cleaning plant	
6,109	1,064	83	29	12	4,469	303	57	56	4	1
6,518	1,141	97	29	12	4,647	438	59	59	4	2
6,793	1,161	97	58	24	4,735	455	60	118	8	3
570	...	97	...	12	...	439	...	...	4	4
391,109	53,528	32,843	913	3,434	117,821	162,045	1,661	7,598	3,336	5
288,980	...	...	418	2,703	117,821	162,045	...	...	...	6
97,661	53,528	32,843	495	731	...	...	...	5,868	3,204	7
4,468	...	...	...	...	...	...	1,661	1,730	132	8
1,855,204	186,429	138,859	4,362	17,196	557,916	871,586	5,491	27,611	10,372	9
1,386,641	128,292	92,635	2,788	12,891	450,576	644,155	3,925	18,043	8,357	10
222,347	13,762	7,418	609	1,927	90,747	101,223	452	1,800	409	11
196,031	11,361	5,989	528	1,732	78,397	92,021	358	1,589	378	12
18,788	1,168	1,395	48	189	6,316	9,113	46	177	26	13
7,528	1,233	34	33	6	6,034	89	48	34	5	14
5,332	867	18	18	3	4,333	34	31	22	2	15
319,345	21,552	10,966	841	2,654	123,737	149,400	590	3,326	722	16
1.22	2.48	2.99	1.09	1.29	0.95	1.08	2.82	2.28	4.62	17
1,321,773	107,781	86,795	3,402	12,612	401,672	658,892	3,180	16,996	3,892	18
749,917	46,382	29,795	1,616	6,947	266,538	374,041	1,376	6,887	1,954	19
107,498	5,708	9,499	192	1,124	33,343	54,642	228	771	165	20
78,365	xxx	18,729	xxx	81	xxx	59,147	xxx	xxx	...	21
17,445	3,388	258	226	...	7,929	3,801	81	1,629	...	22
253,958	25,913	17,706	421	2,795	72,637	123,594	590	3,290	1,296	23
15,871	8,481	1,641	90	84	1,658	1,954	254	1,395	128	24
45,967	1,906	4,457	73	450	13,575	24,247	25	173	238	25
52,752	16,003	4,710	784	1,131	5,992	17,466	626	2,851	111	26
116,935	21,246	8,552	188	803	28,150	50,982	595	4,014	724	27
112,730	18,800	9,829	208	1,039	22,601	53,760	605	3,784	482	28
3,548	613	351	67	40	1,030	1,146	19	119	...	29
21,108	160	3,066	...	43	912	16,750	...	58	23	30
10,683	1,197	1,614	19	440	1,894	5,246	5	35	162	31
63,581	12,259	4,044	69	463	15,417	26,638	489	2,823	150	32
13,810	4,571	754	53	53	3,348	3,980	92	749	147	33
6,025,827	1,371,162	566,433	30,544	46,520	1,494,047	2,197,127	40,667	156,170	30,050	34
31	121	94	58	27	19	24	114	98	79	35
2,484,557	1,247,574	315,382	21,743	14,014	375,213	266,716	39,752	146,241	20,257	36
3,541,270	123,588	251,051	8,801	32,506	1,118,834	1,930,411	915	9,929	9,793	37
117,208	4,128	1,117	75	450	59,350	51,444	429	97	...	38
14,780	3,164	1,006	38	125	3,662	6,003	88	443	61	39
752	39	23	...	7	243	433	...	...	...	40
75	...	...	...	1	21	53	...	...	...	41
1,906	1,185	211	14	7	184	51	34	182	20	42
70	45	5	1	...	6	...	3	10	...	43
492	77	2	...	23	223	97	...	...	...	44
5,586	2,411	509	33	25	1,380	662	93	395	15	45
3,501	133	332	4	38	897	1,990	1	15	23	46
132	2	1	...	...	48	81	...	...	...	47
24,677	381	5,840	...	613	1,982	13,443	...	4	255	48
0.13	0.04	0.97	...	0.35	0.03	0.15	...	(⁹)	0.67	49

Table 4A.—DETAILED STATISTICS FOR THE BITUMINOUS COAL AND LIGNITE MINING

(For explanation of line

Item	Bituminous coal and lignite industries—Continued			
	Producing mines (with or without mechanical cleaning plant)—Continued			
	Combination underground and auger mines		All other combination mines	
	Without cleaning plant	With cleaning plant	Without cleaning plant	With cleaning plant
1 Number of operating companies.....	7	12	7	6
2 Number of establishments.....	7	12	7	6
3 Number of mines.....	14	24	21	18
4 Number of mechanical cleaning plants.....	...	12	...	6
5 Net production of bituminous coal and lignite, total.....1,000 short tons..	475	3,469	1,658	2,328
6 From underground operations.....do....	425	2,924	751	1,893
7 From strip-pit operations ⁴.....do....	...	...	719	273
8 From auger operations ⁴.....do....	50	545	188	162
9 Value of shipments.....\$1,000..	2,470	15,431	5,210	12,271
10 Value added in mining.....do....	1,821	11,921	3,462	7,775
11 Number of persons engaged, total.....	422	1,794	703	1,081
12 Production and development workers.....	395	1,669	625	989
13 All other employees.....	23	125	70	92
14 Proprietors and firm members.....	4	...	8	...
15 Performing manual labor.....	1	...	3	...
16 Man-hours worked by production and development workers....1,000..	550	2,623	874	1,510
17 Net coal produced per man-hour.....short tons..	0.86	1.32	1.90	1.54
18 Principal expenses designated below, total.....\$1,000..	2,063	11,124	4,294	9,070
19 Wages of production and development workers.....do....	1,302	6,841	2,228	4,010
20 Salaries of all other employees.....do....	107	723	434	562
21 Raw coal received for mechanical cleaning.....do....	xxx	28	xxx	380
22 Raw coal received for resale without mechanical cleaning.....do....	130	...	3	...
23 Supplies.....do....	329	2,320	891	2,176
24 Purchased fuel.....do....	10	56	94	26
25 Purchased electric energy.....do....	50	463	88	222
26 Contract work.....do....	135	693	556	1,694
27 Purchased machinery installed.....do....	23	728	182	748
28 Capital expenditures, total.....do....	28	778	66	750
29 Development and exploration of mineral property.....do....	5	107	...	51
30 Cleaning plant construction and major alterations.....do....	...	37	...	59
31 Other construction.....do....	...	41	8	22
32 New machinery and equipment.....do....	23	566	57	583
33 Used plant and equipment.....do....	...	27	1	35
34 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	7,604	39,514	20,237	25,752
35 Per production worker.....	19	24	32	26
36 Prime movers.....	2,932	15,614	11,582	7,537
37 Electric motors driven by purchased energy.....	4,672	23,900	8,655	18,215
38 Horsepower rating of electric motors driven by energy generated at the establishment.....	118	...	...	...
39 Energy used.....million kwh equivalent..	4	57	48	81
40 Bituminous coal and lignite produced and used at same establishment.....1,000 short tons..	...	...	...	7
41 Fuels purchased:				
42 Bituminous coal and lignite.....do....	...	...	...	...
43 Distillate fuel oil.....1,000 barrels..	...	8	7	3
44 Residual fuel oil.....do....	...	...	...	...
45 Gas (natural and manufactured).....million cu. ft..	...	1	66	3
46 Other fuels.....\$1,000..	6	20	33	4
47 Electric energy purchased.....million kwh..	2	38	8	20
48 Electric energy generated and used.....do....	...	...	...	...
49 Water intake, including mine water used.....million gallons..	165	1,890	...	104
49 Per production worker.....do....	0.42	1.13	...	0.11

xxx Not applicable. ¹In general, contractors were requested to prepare one report for all mining contract services performed in the United States. These reports were classified on the basis of the principal kind of work performed. However, separate reports were required for anthracite stripping contract services. ²Includes other services in and around the strip-pit, such as pumping, drilling, back filling, road building, and hauling, receipts for which amounted to less than 10 percent of the total receipts. ³Represents shaft sinking and mine tunnelling, cementing, timbering, prospect and test drilling, churn drilling, exploration work, and tipping services on a custom basis. ⁴See table 1, footnote 6. ⁵Value is not shown since the cost of supplies, purchased fuel, purchased electric energy, contract work, and purchased machinery installed exceeds capital expenditures by \$277 thousand. ⁶Not computed, since number of proprietors and firm members performing manual labor exceeds one-third of the number of production and development workers. ⁷Includes coke screenings and breeze purchased for resale. ⁸Includes mine timbers purchased for resale. ⁹Less than 5,000 gallons.

BITUMINOUS COAL AND LIGNITE MINING

12A-37

INDUSTRIES IN THE UNITED STATES, BY TYPE OF OPERATION: 1954—Continued

captions, see INTRODUCTION)

Lignite industry only (producing mines without cleaning plants)			Bituminous coal and lignite mining contract services industry ¹						
Total	Strip-pit mines	Underground mines	Total	Establishments classified by kind of work performed					
				Strip-pit mining and removing overburden	Strip-pit mining, removing overburden, and auger mining	Strip-pit mining, removing overburden, and other contract services ²	Auger mining only	Other contract services ³	
56	42	14	152	93	6	15	23	15	1
60	46	14	152	93	6	15	23	15	2
60	46	14	xxx	xxx	xxx	xxx	xxx	xxx	3
...	...	...	xxx	xxx	xxx	xxx	xxx	xxx	4
4,245	4,197	48	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)	xxx	5
48	...	48	xxx	xxx	xxx	xxx	xxx	xxx	6
4,197	4,197	...	(⁴)	(⁴)	(⁴)	(⁴)	xxx	xxx	7
...	...	...	(⁴)	xxx	(⁴)	xxx	(⁴)	xxx	8
10,387	10,222	165	17,596	11,999	1,888	1,008	1,065	1,636	9
9,093	8,955	138	12,517	8,609	1,095	715	771	1,327	10
631	588	43	1,610	1,037	162	121	114	176	11
505	479	26	1,331	874	143	94	85	135	12
69	68	1	115	62	16	9	1	27	13
57	41	16	164	101	3	18	28	14	14
43	27	16	118	68	1	16	22	11	15
901	856	45	2,458	1,623	227	195	157	256	16
4.71	4.90	(⁶)	xxx	xxx	xxx	xxx	xxx	xxx	17
3,914	3,824	90	11,006	7,040	1,501	712	607	1,146	18
2,177	2,115	62	5,511	3,589	614	401	319	588	19
411	410	1	557	267	89	19	2	180	20
xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	21
...	...	...	xxx	xxx	xxx	xxx	xxx	xxx	22
627	604	23	2,991	71,931	401	166	152	8341	23
239	239	...	1,160	802	136	110	84	28	24
254	250	4	36	28	...	...	...	8	25
206	206	...	751	423	261	16	50	1	26
607	607	...	2,552	2,012	58	236	203	43	27
639	639	...	2,411	1,806	63	235	195	112	28
15	15	...	xxx	xxx	xxx	xxx	xxx	xxx	29
1	1	...	xxx	xxx	xxx	xxx	xxx	xxx	30
133	133	...	86	13	5	...	...	68	31
479	479	...	1,882	1,518	58	178	95	33	32
11	11	...	443	275	...	57	100	11	33
74,590	73,452	1,138	164,043	127,728	10,417	8,127	9,229	8,542	34
148	153	(⁶)	123	146	73	86	109	63	35
44,835	44,168	667	142,179	108,928	10,417	8,127	9,229	5,478	36
29,755	29,284	471	21,864	18,800	...	...	...	3,064	37
522	500	22	6,276	6,276	...	...	...	...	38
144	144	...	353	243	38	41	23	8	39
7	7	...	xxx	xxx	xxx	xxx	xxx	xxx	40
...	...	...	2	2	...	...	...	...	41
24	24	...	132	91	14	20	6	1	42
...	...	...	8	8	...	...	...	...	43
...	...	...	...	...	...	...	...	...	44
97	97	...	381	225	56	26	50	24	45
25	25	...	2	2	...	...	...	...	46
...	...	...	...	...	...	...	...	...	47
16	16	...	67	67	...	...	...	...	48
0.03	0.03	...	0.05	0.08	...	...	...	...	49

MINERAL INDUSTRIES--INDUSTRY STATISTICS

Table 4B.—DETAILED STATISTICS FOR THE BITUMINOUS COAL INDUSTRY, BY

(For explanation of line captions,

	Item	United States, total	Middle Atlantic (Pennsylvania)			
			Total	Producing establishments		
				Strip-pit mines	Combination strip-pit and underground mines	Underground mines
1	Number of operating companies.....	5,913	1,341	417	23	1,034
2	Number of establishments.....	6,643	1,545	458	23	1,004
3	Number of mines.....	6,784	1,581	468	46	1,013
4	Number of mechanical cleaning plants.....	628	96	11	2	72
5	Net production of bituminous coal, total.....1,000 short tons..	386,864	72,058	14,716	829	54,718
6	From underground operations.....do....	288,932	55,111	...	386	54,718
7	From strip-pit operations.....do....	93,464	16,698	14,716	443	...
8	From auger operations.....do....	4,468	249	...	...	...
9	Value of shipments.....\$1,000..	2,040,200	446,866	58,104	3,919	326,026
10	Value added in mining.....do....	1,396,774	294,970	35,381	2,493	246,656
11	Number of persons engaged, total.....	224,352	52,217	4,664	532	45,714
12	Production and development workers.....	197,819	45,633	3,730	464	40,297
13	All other employees.....	18,994	4,864	373	45	4,322
14	Proprietors and firm members.....	7,539	1,720	561	23	1,095
15	Performing manual labor.....	5,324	1,064	374	12	661
16	Man-hours worked by production and development workers.....1,000..	322,410	73,135	7,223	749	62,989
17	Net coal produced per man-hour.....short tons..	1.20	0.99	2.04	1.11	0.87
18	Principal expenses designated below, total.....\$1,000..	1,506,355	347,106	37,107	3,170	252,829
19	Wages of production and development workers.....do....	757,175	173,029	14,003	1,470	152,809
20	Salaries of all other employees.....do....	108,474	28,635	1,631	186	26,138
21	Raw coal received for mechanical cleaning.....do....	203,953	55,096	612	...	13,429
22	Raw coal received for resale without mechanical cleaning.....do....	62,065	8,450	2,066	196	2,975
23	Supplies.....do....	257,233	49,261	6,815	375	40,196
24	Purchased fuel.....do....	15,712	4,624	3,273	72	875
25	Purchased electric energy.....do....	47,512	10,887	210	70	9,983
26	Contract work.....do....	54,231	17,124	8,497	801	6,424
27	Purchased machinery installed.....do....	118,481	27,482	6,875	125	18,970
28	Capital expenditures, total.....do....	115,761	21,028	5,625	213	13,482
29	Development and exploration of mineral property.....do....	3,586	927	177	99	606
30	Cleaning plant construction and major alterations.....do....	23,186	2,959	124	...	2,205
31	Other construction.....do....	10,762	2,054	164	19	1,788
32	New machinery and equipment.....do....	63,845	11,342	2,743	65	7,722
33	Used plant and equipment.....do....	14,382	3,746	2,417	30	1,161
34	Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	6,092,894	1,627,690	527,541	24,198	994,574
35	Per production worker.....	31	36	141	52	25
36	Prime movers.....	2,469,236	758,769	504,985	15,674	188,230
37	Electric motors driven by purchased energy.....	3,623,658	868,921	22,556	8,524	806,344
38	Horsepower rating of electric motors driven by energy generated at the establishment.....	116,686	48,419	1,259	...	47,160
39	Energy used.....million kwh equivalent..	14,854	4,392	1,080	22	3,051
40	Bituminous coal produced and used at same establishment.....1,000 short tons..	754	204	1	...	196
41	Fuels purchased:					
42	Bituminous coal and lignite.....do....	75	70	...	...	70
43	Distillate fuel oil.....1,000 barrels..	1,886	585	453	8	54
44	Residual fuel oil.....do....	70	27	25	1	1
45	Gas (natural and manufactured).....million cu. ft..	507	228	20	...	207
46	Other fuels.....\$1,000..	5,534	1,344	944	16	290
47	Electric energy purchased.....million kwh..	3,601	834	11	2	779
48	Electric energy generated and used.....do....	132	67	1	...	66
49	Water intake, including mine water used.....million gallons..	29,325	4,308	78	...	3,827
49	Per production worker.....do....	0.15	0.09	0.02	...	0.09

See footnotes at end of table.

GEOGRAPHIC DIVISIONS AND STATES AND BY TYPE OF OPERATION: 1954

see INTRODUCTION)

Middle Atlantic (Pennsylvania)—Continued				East North Central (Ohio)					
Producing establishments—Continued			Non-producing establishments	Total	Producing mines				Cleaning plants only, tipples only, and non-producing establishments
Auger mines and combination auger and other methods	Cleaning plants only	Tipples only			Strip-pit mines	Combination strip-pit and underground mines	Underground mines	Auger mines and combination auger and other methods	
22	9	12	10	485	182	4	271	32	4
23	10	12	15	517	198	4	278	33	4
39	...	...	15	550	204	8	279	58	1
1	10	...	...	26	7	1	15	1	2
1,795	xxx	xxx	xxx	32,438	16,302	594	10,456	5,086	xxx
7	xxx	xxx	xxx	10,962	...	489	10,456	17	xxx
1,539	xxx	xxx	xxx	20,522	16,302	105	...	4,115	xxx
249	xxx	xxx	xxx	954	...	...	...	954	xxx
7,091	49,313	2,413	...	130,254	65,282	2,331	43,353	15,714	3,574
4,631	5,411	456	(2)	90,164	40,652	1,776	35,916	11,366	454
582	595	68	62	11,713	4,036	338	6,393	906	40
484	560	51	47	10,015	3,299	312	5,591	782	31
74	35	8	7	1,117	550	22	433	103	9
24	...	9	8	581	187	4	369	21	...
10	...	3	4	440	129	2	298	11	...
1,068	963	81	62	17,910	6,560	456	9,154	1,687	53
1.68	xxx	xxx	xxx	1.81	2.49	1.30	1.14	3.01	xxx
4,740	46,802	2,133	325	86,674	41,776	1,872	31,096	8,646	3,284
2,003	2,448	150	146	41,181	14,939	1,192	21,080	3,850	120
276	254	31	119	6,594	3,248	125	2,667	510	44
...	41,055	...	...	10,314	8,273	...	172	...	1,869
346	953	1,914	...	1,499	220	...	62	49	1,168
861	981	18	15	17,443	9,563	282	5,324	2,222	52
382	15	6	1	3,339	2,354	10	212	761	2
36	530	14	44	2,314	772	64	1,220	229	29
836	566	...	...	3,990	2,407	199	359	1,025	...
713	724	19	56	8,720	4,235	14	2,066	2,057	348
714	922	14	58	7,529	3,194	14	1,978	1,995	348
43	...	...	2	90	28	...	1	61	...
58	572	...	...	645	65	...	557	23	...
13	65	5	...	292	92	...	43	157	...
471	277	8	56	5,001	2,208	12	1,132	1,634	15
129	8	1	...	1,501	801	2	245	120	333
46,623	27,441	1,797	5,516	496,066	315,830	7,314	99,584	70,570	2,768
96	49	35	117	50	96	23	18	90	86
44,324	3,233	945	1,378	368,192	283,495	4,449	21,178	58,780	290
2,299	24,208	852	4,138	127,874	32,335	2,865	78,406	11,790	2,478
...	...	...	...	6,587	1,211	75	5,291	10	...
140	94	2	3	1,310	859	6	197	247	1
...	7	...	...	2	...	...	2	...	...
...	...	...	...	2	...	...	2	...	...
68	2	...	...	450	340	...	21	89	...
...	...	...	...	20	10	...	1	9	...
1	...	...	...	61	57	...	4	...	...
88	...	6	...	1,035	693	6	86	249	1
2	37	...	3	197	70	4	106	16	1
...	...	...	...	4	...	...	4	...	...
...	401	...	2	892	362	23	493	5	9
...	0.72	...	0.04	0.09	0.11	0.07	0.09	0.01	0.29

Table 4B.—DETAILED STATISTICS FOR THE BITUMINOUS COAL INDUSTRY, BY
(For explanation of line captions,

Item	East North Central—Continued		
	Indiana (all producing establishments)		
	Total	Strip-pit mines	Underground mines and cleaning plants only
1 Number of operating companies.....	81	41	49
2 Number of establishments.....	98	48	50
3 Number of mines.....	99	49	50
4 Number of mechanical cleaning plants.....	27	15	12
5 Net production of bituminous coal, total.....1,000 short tons..	13,378	8,490	4,888
6 From underground operations.....do....	4,888	...	4,888
7 From strip-pit operations.....do....	8,490	8,490	...
8 From auger operations.....do....	...	...	...
9 Value of shipments.....\$1,000..	69,313	33,591	35,722
10 Value added in mining.....do....	39,588	23,907	15,681
11 Number of persons engaged, total.....	4,830	2,317	2,513
12 Production and development workers.....	4,153	1,853	2,300
13 All other employees.....	591	436	155
14 Proprietors and firm members.....	86	28	58
15 Performing manual labor.....	48	13	35
16 Man-hours worked by production and development workers.....1,000..	6,764	2,956	3,808
17 Net coal produced per man-hour.....short tons..	1.98	2.87	1.28
18 Principal expenses designated below, total.....\$1,000..	51,251	21,286	29,965
19 Wages of production and development workers.....do....	17,663	8,416	9,247
20 Salaries of all other employees.....do....	3,951	2,941	1,010
21 Raw coal received for mechanical cleaning.....do....	18,418	3,205	15,213
22 Raw coal received for resale without mechanical cleaning.....do....	2	2	...
23 Supplies.....do....	8,728	4,987	3,741
24 Purchased fuel.....do....	465	446	19
25 Purchased electric energy.....do....	1,841	1,141	700
26 Contract work.....do....	183	148	35
27 Purchased machinery installed.....do....	6,849	5,686	1,163
28 Capital expenditures, total.....do....	6,761	5,931	830
29 Development and exploration of mineral property.....do....	266	218	48
30 Cleaning plant construction and major alterations.....do....	209	209	...
31 Other construction.....do....	650	644	6
32 New machinery and equipment.....do....	5,394	4,646	748
33 Used plant and equipment.....do....	242	214	28
34 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	237,308	176,576	60,732
35 Per production worker.....	57	95	26
36 Prime movers.....	117,438	99,257	18,181
37 Electric motors driven by purchased energy.....	119,870	77,319	42,551
38 Horsepower rating of electric motors driven by energy generated at the establishment.....	8,833	172	8,661
39 Energy used.....million kwh equivalent..	534	295	239
40 Bituminous coal produced and used at same establishment.....1,000 short tons..	35	10	25
41 Fuels purchased:			
42 Bituminous coal and lignite.....do....	45	44	1
43 Distillate fuel oil.....1,000 barrels..	5	5	...
44 Residual fuel oil.....do....	...	...	...
45 Gas (natural and manufactured).....million cu. ft..	190	177	13
46 Other fuels.....\$1,000..	132	90	42
47 Electric energy purchased.....million kwh..	8	...	8
48 Electric energy generated and used.....do....	...	...	...
49 Water intake, including mine water used.....million gallons..	2,169	1,163	1,006
Per production worker.....do....	0.52	0.63	0.44

See footnotes at end of table.

GEOGRAPHIC DIVISIONS AND STATES AND BY TYPE OF OPERATION: 1954—Continued

see INTRODUCTION)

East North Central—Continued					West North Central						
Illinois					Iowa			Missouri (all producing establishments)			
Total	Producing establishments			Non-producing estab- lishments	Total	Strip-pit mines	Underground mines	Total	Strip-pit mines ¹	Underground mines	
	Strip-pit mines	Underground mines	Cleaning plants only and tipples only								
156	45	119	5	4	71	33	38	67	38	30	1
198	56	132	6	4	73	33	40	69	39	30	2
193	57	132	...	4	73	33	40	68	38	30	3
69	23	40	5	1	...	...	...	9	6	3	4
41,974	16,454	25,520	xxx	xxx	1,198	860	338	2,524	2,366	158	5
25,520	...	25,520	xxx	xxx	338	...	338	158	...	158	6
16,454	16,454	...	xxx	xxx	860	860	...	2,366	2,366	...	7
...	...	...	xxx	xxx	...	...	...	...	...	...	8
179,920	62,070	103,550	14,300	...	4,543	3,062	1,481	12,155	11,315	840	9
129,161	47,683	78,987	2,503	(²)	3,556	2,351	1,205	7,644	6,945	699	10
15,152	3,171	11,674	279	28	709	305	404	919	628	291	11
13,491	2,516	10,685	266	24	562	226	336	781	528	253	12
1,465	613	840	11	1	40	29	11	69	64	5	13
196	42	149	2	3	107	50	57	69	36	33	14
125	33	90	...	2	86	39	47	53	27	26	15
21,988	4,855	16,627	461	45	991	466	525	1,364	972	392	16
1.91	3.39	1.53	xxx	xxx	1.21	1.85	0.64	1.85	2.43	0.40	17
116,475	33,563	69,286	13,452	174	2,657	1,588	1,069	7,427	6,749	678	18
55,958	13,459	41,016	1,385	98	1,549	777	772	2,874	2,341	533	19
8,764	3,993	4,711	56	4	173	139	34	485	476	9	20
19,831	3,256	5,193	11,382	...	...	...	...	...	...	...	21
54	15	...	39	...	...	...	...	3,391	3,292	...	22
22,754	7,955	14,352	382	65	438	275	163	...	...	99	23
747	629	118	...	...	195	181	14	128	123	5	24
5,722	2,330	3,177	208	7	86	49	37	536	504	32	25
2,645	1,926	719	...	...	216	167	49	13	13	...	26
10,664	4,747	5,862	...	55	471	438	33	724	707	17	27
11,658	6,471	4,858	214	115	419	399	20	281	269	12	28
374	244	130	...	...	6	2	4	2	2	...	29
3,708	2,507	887	214	100	...	...	...	4	4	...	30
1,626	1,423	199	...	4	30	30	...	32	31	1	31
4,791	2,089	2,691	...	11	324	309	15	149	143	6	32
1,159	208	951	...	...	59	58	1	94	89	5	33
578,721	240,819	320,308	15,209	2,385	31,775	26,122	5,653	60,929	58,362	2,567	34
43	96	30	57	99	57	116	17	78	111	10	35
170,980	126,957	38,868	2,775	2,380	26,275	24,076	2,199	34,673	34,273	400	36
407,741	113,862	281,440	12,434	5	5,500	2,046	3,454	26,256	24,089	2,167	37
5,313	1,048	4,265	...	...	145	45	100	99	99	...	38
1,433	451	973	8	1	68	57	11	76	64	12	39
106	12	94	...	...	1	...	1	...	...	...	40
...	...	...	...	...	...	...	...	...	...	...	41
93	86	7	...	...	21	21	...	21	19	2	42
...	...	...	...	...	...	...	...	...	...	...	43
...	...	...	...	...	...	...	...	...	...	...	44
252	164	88	...	...	81	71	10	44	39	5	45
397	171	217	8	1	4	3	1	29	22	7	46
4	1	3	...	...	...	...	...	...	...	...	47
4,786	2,631	799	1,356	...	...	...	...	524	493	31	48
0.35	1.05	0.07	5.10	...	...	...	...	0.67	0.93	0.12	49

Table 4B.—DETAILED STATISTICS FOR THE BITUMINOUS COAL INDUSTRY, BY
(For explanation of line captions,

Item	West North Central—Continued Kansas (all producing establishments)			South Atlantic Maryland (all producing establishments)		
	Total	Strip-pit mines	Under- ground mines	Total	Strip-pit mines	Under- ground mines
1 Number of operating companies.....	32	26	8	77	18	59
2 Number of establishments.....	34	26	8	79	18	61
3 Number of mines.....	34	26	8	80	18	62
4 Number of mechanical cleaning plants.....	4	4	...	...	...	...
5 Net production of bituminous coal, total.....1,000 short tons..	1,377	1,351	26	431	194	237
6 From underground operations.....do....	26	...	26	237	...	237
7 From strip-pit operations.....do....	1,351	1,351	...	194	194	...
8 From auger operations.....do....	...	...	...	...	...	...
9 Value of shipments.....\$1,000..	6,679	6,544	135	2,119	930	1,189
10 Value added in mining.....do....	4,271	4,156	115	1,631	623	1,008
11 Number of persons engaged, total.....	535	480	55	455	114	341
12 Production and development workers.....	423	376	47	352	88	264
13 All other employees.....	74	73	1	19	5	14
14 Proprietors and firm members.....	38	31	7	84	21	63
15 Performing manual labor.....	33	27	6	66	19	47
16 Man-hours worked by production and development workers.....1,000..	721	659	62	562	149	413
17 Net coal produced per man-hour.....short tons..	1.91	2.05	0.42	0.77	1.30	0.57
18 Principal expenses designated below, total.....\$1,000..	4,771	4,668	103	1,535	638	897
19 Wages of production and development workers.....do....	1,770	1,687	83	1,003	350	653
20 Salaries of all other employees.....do....	535	534	1	70	14	56
21 Raw coal received for mechanical cleaning.....do....	(4)	(4)	...	...	...	...
22 Raw coal received for resale without mechanical cleaning.....do....	...	...	...	108	60	48
23 Supplies.....do....	41,975	41,961	14	223	115	108
24 Purchased fuel.....do....	109	109	...	80	71	9
25 Purchased electric energy.....do....	224	219	5	23	...	23
26 Contract work.....do....	158	158	...	28	28	...
27 Purchased machinery installed.....do....	256	255	1	171	138	33
28 Capital expenditures, total.....do....	314	314	...	145	105	40
29 Development and exploration of mineral property.....do....	...	...	...	8	...	8
30 Cleaning plant construction and major alterations.....do....	90	90	...	...	...	...
31 Other construction.....do....	87	87	...	...	...	...
32 New machinery and equipment.....do....	74	74	...	102	75	27
33 Used plant and equipment.....do....	63	63	...	35	30	5
34 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	49,017	48,354	663	15,965	11,878	4,087
35 Per production worker.....	116	129	14	45	135	15
36 Prime movers.....	37,582	37,432	150	12,569	11,878	691
37 Electric motors driven by purchased energy.....	11,435	10,922	513	3,396	...	3,396
38 Horsepower rating of electric motors driven by energy generated at the establishment.....	...	...	...	22	...	22
39 Energy used.....million kwh equivalent..	67	67	...	32	22	10
40 Bituminous coal produced and used at same establishment.....1,000 short tons..	2	2	...	...	...	...
41 Fuels purchased:						
42 Bituminous coal and lignite.....do....	...	...	...	1	...	1
43 Distillate fuel oil.....1,000 barrels..	18	18	...	9	9	...
44 Residual fuel oil.....do....	...	...	...	...	...	...
45 Gas (natural and manufactured).....million cu. ft..	...	...	...	...	...	...
46 Other fuels.....\$1,000..	30	30	...	33	29	4
47 Electric energy purchased.....million kwh..	13	13	...	1	...	1
48 Electric energy generated and used.....do....	...	...	...	...	...	...
49 Water intake, including mine water used.....million gallons..	293	293	...	...	...	...
50 Per production worker.....do....	0.69	0.78	...	...	...	...

See footnotes at end of table.

GEOGRAPHIC DIVISIONS AND STATES AND BY TYPE OF OPERATION: 1954--Continued
see INTRODUCTION)

South Atlantic--Continued Virginia							
Total	Producing establishments					Nonproducing establishments	
	Strip-pit mines	Underground mines	Auger mines and combination methods	Cleaning plants only	Tipples only		
579	17	536	11	6	14	3	1
607	17	552	11	6	15	6	2
609	17	571	15	...	...	6	3
31	...	24	...	6	...	1	4
16,476	863	15,358	255	xxx	xxx	xxx	5
15,395	...	15,358	37	xxx	xxx	xxx	6
913	863	...	50	xxx	xxx	xxx	7
168	...	...	168	xxx	xxx	xxx	8
99,078	4,965	77,040	923	5,390	10,760	...	9
61,508	3,244	55,307	674	876	1,417	(2)	10
12,562	242	11,987	109	76	127	21	11
10,730	209	10,247	94	72	89	19	12
990	16	932	3	4	35	...	13
842	17	808	12	...	3	2	14
583	12	561	9	...	...	1	15
17,324	388	16,467	140	115	165	49	16
0.95	2.22	0.93	1.82	xxx	xxx	xxx	17
78,273	2,614	60,512	527	4,789	9,730	101	18
34,763	794	33,054	309	256	283	67	19
4,733	97	4,521	5	15	95	...	20
9,807	...	6,053	...	3,754	...	...	21
12,429	1,048	1,576	...	637	9,168	...	22
12,008	496	11,220	137	72	82	1	23
429	114	282	29	2	2	...	24
1,714	16	1,618	3	51	26	...	25
2,390	49	2,188	44	2	74	33	26
3,524	116	3,044	248	16	45	55	27
4,731	118	4,248	212	20	54	79	28
123	...	112	5	...	...	6	29
550	...	541	...	...	9	...	30
1,039	8	953	...	6	...	72	31
2,282	59	2,165	26	13	18	1	32
737	51	477	181	1	27	...	33
201,139	30,364	156,318	7,283	2,694	922	3,558	34
19	145	15	77	37	10	187	35
69,016	28,135	32,657	6,744	935	235	310	36
132,123	2,229	123,661	539	1,759	687	3,248	37
4,635	...	4,517	118	...	...	...	38
422	36	361	17	5	3	...	39
24	...	24	...	...	...	...	40
...	...	...	...	...	...	...	41
38	15	16	7	...	...	...	42
2	...	1	1	...	...	...	43
...	...	...	...	...	...	...	44
239	33	188	15	1	2	...	45
109	2	100	...	5	2	...	46
6	...	6	...	...	...	...	47
1,848	...	555	...	1,293	...	...	48
0.17	...	0.05	...	1.80	...	...	49

Table 4B.—DETAILED STATISTICS FOR THE BITUMINOUS COAL INDUSTRY, BY

(For explanation of line captions,

Item	South Atlantic—Continued (West Virginia)				
	Total	Producing establishments			
		Strip-pit mines	Combination strip-pit and underground mines	Underground mines	Auger mines and combina- tion auger and other methods
1 Number of operating companies.....	1,099	96	5	947	68
2 Number of establishments.....	1,294	103	5	1,057	71
3 Number of mines.....	1,344	104	10	1,091	126
4 Number of mechanical cleaning plants.....	199	3	3	159	15
5 Net production of bituminous coal, total.....1,000 short tons..	116,181	4,904	1,532	100,029	9,716
6 From underground operations.....do....	106,226	...	1,356	100,029	4,841
7 From strip-pit operations.....do....	7,491	4,904	176	...	2,411
8 From auger operations.....do....	2,464	...	...	...	2,464
9 Value of shipments.....\$1,000..	637,357	16,805	8,856	507,782	41,798
10 Value added in mining.....do....	431,087	11,424	6,735	382,015	27,844
11 Number of persons engaged, total.....	68,118	1,291	883	61,248	3,899
12 Production and development workers.....	61,518	1,121	756	55,410	3,557
13 All other employees.....	5,538	107	124	4,895	306
14 Proprietors and firm members.....	1,062	63	3	943	36
15 Performing manual labor.....	726	45	1	643	27
16 Man-hours worked by production and development workers.....1,000..	102,276	2,091	1,184	92,267	5,578
17 Net coal produced per man-hour.....short tons..	1.14	2.35	1.29	1.08	1.74
18 Principal expenses designated below, total.....\$1,000..	491,550	10,666	6,319	381,606	29,720
19 Wages of production and development workers.....do....	251,318	4,745	3,216	226,507	14,117
20 Salaries of all other employees.....do....	31,083	463	780	27,633	1,769
21 Raw coal received for mechanical cleaning.....do....	56,880	...	...	24,388	380
22 Raw coal received for resale without mechanical cleaning.....do....	30,988	69	30	4,642	1,419
23 Supplies.....do....	85,458	2,749	1,251	73,566	6,368
24 Purchased fuel.....do....	2,807	972	45	1,057	704
25 Purchased electric energy.....do....	14,273	54	212	12,805	629
26 Contract work.....do....	18,743	1,614	785	11,008	4,334
27 Purchased machinery installed.....do....	39,616	1,561	720	33,612	3,204
28 Capital expenditures, total.....do....	42,495	1,638	922	35,311	3,084
29 Development and exploration of mineral property.....do....	779	89	6	523	136
30 Cleaning plant construction and major alterations.....do....	11,744	55	43	10,371	96
31 Other construction.....do....	3,591	79	440	2,944	103
32 New machinery and equipment.....do....	23,172	1,129	409	19,099	2,310
33 Used plant and equipment.....do....	3,209	286	24	2,374	439
34 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	1,519,264	137,142	16,160	1,161,180	156,924
35 Per production worker.....	25	122	21	21	44
36 Prime movers.....	422,908	135,055	5,201	160,146	110,949
37 Electric motors driven by purchased energy.....	1,096,356	2,087	10,959	1,001,034	45,975
38 Horsepower rating of electric motors driven by energy generated at the establishment.....	21,668	...	450	21,128	90
39 Energy used.....million kwh equivalent..	3,332	312	42	2,565	342
40 Bituminous coal produced and used at same establishment.....1,000 short tons..	175	...	1	165	7
41 Fuels purchased:					
42 Bituminous coal and lignite.....do....	1	1	...	...	...
43 Distillate fuel oil.....1,000 barrels..	294	142	3	63	85
44 Residual fuel oil.....do....	10	6	...	2	2
45 Gas (natural and manufactured).....million cu. ft..	196	...	23	102	69
46 Other fuels.....\$1,000..	1,130	193	11	709	194
47 Electric energy purchased.....million kwh..	1,118	3	19	979	70
48 Electric energy generated and used.....do....	15	...	...	15	...
49 Water intake, including mine water used.....million gallons..	7,911	34	492	4,078	2,085
Per production worker.....do....	0.13	0.03	0.65	0.07	0.59

See footnotes at end of table.

BITUMINOUS COAL AND LIGNITE MINING

12A-45

GEOGRAPHIC DIVISIONS AND STATES AND BY TYPE OF OPERATION: 1954—Continued

see INTRODUCTION)

South Atlantic—Continued				East South Central (Kentucky)							
West Virginia—Continued			Georgia (all producing underground mines)	Total	Producing establishments					Non- producing establish- ments	
Producing establishments—Continued		Non- producing establish- ments			Strip-pit mines	Underground mines	Auger mines and combination methods	Cleaning plants only	Tipples only		
Cleaning plants only	Tipples only										
14	28	9	5	1,086	61	1,003	17	6	16	4	1
15	30	13	5	1,145	62	1,040	17	6	16	4	2
...	...	13	5	1,159	62	1,066	27	...	...	4	3
15	...	4	...	81	13	56	6	6	...	...	4
xxx	xxx	xxx	9	56,791	8,567	43,884	4,340	xxx	xxx	xxx	5
xxx	xxx	xxx	9	45,410	...	43,884	1,526	xxx	xxx	xxx	6
xxx	xxx	xxx	...	10,784	8,567	...	2,217	xxx	xxx	xxx	7
xxx	xxx	xxx	...	597	...	...	597	xxx	xxx	xxx	8
52,959	9,157	...	43	267,461	24,700	198,232	15,564	22,809	6,156	...	9
1,590	1,638	(²)	33	193,094	18,154	159,589	12,181	2,332	846	(²)	10
488	242	67	14	33,397	1,550	30,226	1,248	245	112	16	11
437	206	31	9	29,416	1,386	26,546	1,160	216	101	7	12
49	23	34	...	2,371	99	2,157	77	25	5	8	13
2	13	2	5	1,610	65	1,523	11	4	6	1	14
...	8	2	4	1,192	49	1,132	6	2	3	...	15
758	321	77	15	47,333	2,658	42,225	1,895	387	157	11	16
xxx	xxx	xxx	0.60	1.20	3.22	1.04	2.29	xxx	xxx	xxx	17
54,544	8,212	483	29	193,397	13,894	144,177	8,169	21,443	5,625	89	18
1,936	619	178	19	105,369	6,713	92,765	4,690	883	297	21	19
225	82	131	...	12,030	551	10,816	459	122	22	60	20
32,112	...	...	...	22,711	...	2,866	28	19,817	...	...	21
17,524	7,304	...	...	7,484	26	2,147	29	77	5,205	...	22
1,324	144	56	10	35,172	3,378	29,301	2,058	369	65	1	23
3	25	1	...	1,352	664	581	87	17	2	1	24
421	35	117	...	5,537	570	4,314	458	158	31	6	25
999	3	...	...	3,742	1,992	1,387	360	...	3	...	26
460	51	8	...	9,933	2,024	6,815	847	123	124	...	27
1,474	43	23	...	11,564	2,108	8,768	484	84	120	...	28
...	2	23	...	387	100	233	34	20	...	...	29
1,179	...	...	...	2,209	111	2,093	...	5	...	...	30
24	1	...	...	628	71	557	...	...	...	...	31
216	9	...	...	6,602	1,533	4,699	279	15	76	...	32
55	31	...	...	1,738	293	1,186	171	44	44	...	33
27,428	4,186	16,244	...	552,510	120,214	369,454	47,574	11,865	2,296	1,107	34
63	20	524	...	19	87	14	41	55	23	158	35
2,799	2,310	6,448	...	174,543	86,509	60,001	26,088	1,545	400	...	36
24,629	1,876	9,796	...	377,967	33,705	309,453	21,486	10,320	1,896	1,107	37
...	...	...	...	11,465	295	10,744	426	...	...	...	38
48	9	14	...	1,025	252	706	48	16	2	1	39
2	...	...	...	31	1	30	...	...	...	...	40
...	...	...	...	1	...	1	...	...	...	...	41
...	1	...	...	143	92	42	9	...	...	...	42
...	...	...	...	3	1	2	...	...	...	...	43
1	...	1	...	19	...	6	...	13	...	...	44
1	21	1	...	570	195	341	24	7	2	1	45
32	2	13	...	381	36	306	27	10	1	1	46
...	...	...	...	18	...	18	...	...	...	...	47
1,222	...	...	...	3,712	909	2,184	402	217	...	...	48
2.8	...	...	...	0.13	0.66	0.08	0.35	1.00	...	...	49

Table 4B.—DETAILED STATISTICS FOR THE BITUMINOUS COAL INDUSTRY, BY
(For explanation of line captions,

Item	East South Central—Continued Tennessee				
	Total	Producing mines			Cleaning plants only, tipples only, and non- producing establish- ments
		Strip-pit mines	Underground mines	Auger mines and combina- tion auger and other methods	
1 Number of operating companies.....	405	49	343	3	10
2 Number of establishments.....	409	49	347	3	10
3 Number of mines.....	411	49	355	6	1
4 Number of mechanical cleaning plants.....	7	1	4	1	1
5 Net production of bituminous coal, total.....1,000 short tons..	6,348	1,464	4,688	196	xxx
6 From underground operations.....do....	4,823	...	4,688	135	xxx
7 From strip-pit operations.....do....	1,489	1,464	...	25	xxx
8 From auger operations.....do....	36	...	...	36	xxx
9 Value of shipments.....\$1,000..	26,462	5,252	19,467	1,025	718
10 Value added in mining.....do....	20,837	3,915	15,896	872	154
11 Number of persons engaged, total.....	4,636	436	3,983	182	35
12 Production and development workers.....	3,960	358	3,404	171	27
13 All other employees.....	173	12	150	11	...
14 Proprietors and firm members.....	503	66	429	...	8
15 Performing manual labor.....	422	48	368	...	6
16 Man-hours worked by production and development workers.....1,000..	6,325	649	5,367	271	38
17 Net coal produced per man-hour.....short tons..	1.00	2.26	0.87	0.72	xxx
18 Principal expenses designated below, total.....\$1,000..	18,812	2,729	14,598	859	626
19 Wages of production and development workers.....do....	12,201	1,277	10,240	628	56
20 Salaries of all other employees.....do....	928	48	824	56	...
21 Raw coal received for mechanical cleaning.....do....	186	...	63	...	123
22 Raw coal received for resale without mechanical cleaning.....do....	702	18	279	...	405
23 Supplies.....do....	3,452	739	2,624	59	30
24 Purchased fuel.....do....	417	301	108	7	1
25 Purchased electric energy.....do....	319	9	290	14	6
26 Contract work.....do....	607	337	170	95	5
27 Purchased machinery installed.....do....	1,121	508	563	21	29
28 Capital expenditures, total.....do....	1,179	575	526	43	35
29 Development and exploration of mineral property.....do....	131	53	56	22	...
30 Cleaning plant construction and major alterations.....do....	17	...	17	...	...
31 Other construction.....do....	27	6	15	...	6
32 New machinery and equipment.....do....	622	319	297	4	2
33 Used plant and equipment.....do....	382	197	141	17	27
34 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	80,123	39,152	35,865	3,254	1,852
35 Per production worker.....	20	109	11	19	69
36 Prime movers.....	51,500	38,629	9,146	2,319	1,406
37 Electric motors driven by purchased energy.....	28,623	523	26,719	935	446
38 Horsepower rating of electric motors driven by energy generated at the establishment.....	817	...	817	...	...
39 Energy used.....million kwh equivalent..	170	98	67	5	...
40 Bituminous coal produced and used at same establishment.....1,000 short tons..	1	...	1	...	...
41 Fuels purchased:					
42 Bituminous coal and lignite.....do....	...	...	...	...	...
43 Distillate fuel oil.....1,000 barrels..	52	46	4	2	...
44 Residual fuel oil.....do....	1	1	...	...	...
45 Gas (natural and manufactured).....million cu. ft..	...	...	...	...	...
46 Other fuels.....\$1,000..	157	67	89	...	1
47 Electric energy purchased.....million kwh..	32	1	30	1	...
48 Electric energy generated and used.....do....	1	...	1	...	...
49 Water intake, including mine water used.....million gallons..	30	3	15	9	3
Per production worker.....do....	0.01	0.01	(⁵)	0.05	0.11

See footnotes at end of table.

GEOGRAPHIC DIVISIONS AND STATES AND BY TYPE OF OPERATION: 1954—Continued

see INTRODUCTION)

East South Central--Continued Alabama					West South Central						
Total	Producing mines			Cleaning plants only, tippl only, and nonproducing establish- ments	Arkansas			Oklahoma			
	Strip-pit mines	Combination strip-pit and under- ground mines	Under- ground mines		Total	Strip-pit mines	Underground mines	Total	Strip-pit mines	Underground mines	
190	29	3	161	5	33	14	19	40	21	19	1
213	30	3	175	5	33	14	19	42	22	20	2
214	30	6	177	1	33	14	19	43	23	20	3
51	10	2	35	4	...	...	...	4	2	2	4
10,287	1,359	251	8,677	xxx	480	225	255	1,916	1,176	740	5
8,744	...	67	8,677	xxx	255	...	255	740	...	740	6
1,543	1,359	184	...	xxx	225	225	...	1,176	1,176	...	7
...	...	...	...	xxx	...	...	...	...	...	...	8
72,012	6,930	1,225	63,027	830	3,692	1,626	2,066	12,069	6,445	5,624	9
54,328	3,803	942	49,292	291	2,783	1,039	1,744	8,854	4,062	4,792	10
8,924	556	153	8,174	41	503	126	377	1,198	340	858	11
7,812	489	144	7,146	33	430	96	334	1,112	304	808	12
876	51	7	811	7	27	7	20	53	23	30	13
236	16	2	217	1	46	23	23	33	13	20	14
169	12	1	156	...	41	19	22	21	8	13	15
12,296	808	207	11,232	49	668	150	518	1,926	598	1,328	16
0.84	1.68	1.21	0.77	xxx	0.72	1.50	0.49	0.99	1.97	0.56	17
49,741	4,835	836	43,353	717	2,483	895	1,588	7,582	3,660	3,922	18
26,443	1,822	514	23,986	121	1,564	379	1,185	4,238	1,230	3,008	19
6,149	306	36	5,748	59	119	45	74	256	144	112	20
4,402	...	81	4,058	263	...	...	...	(4)	(4)	(4)	21
285	62	...	...	223	...	...	...	...	...	...	22
8,599	1,464	150	6,962	23	644	387	257	42,130	41,473	4,657	23
480	312	39	129	...	43	42	1	162	160	2	24
2,031	81	13	1,909	28	96	27	69	223	91	132	25
1,352	788	3	561	...	17	15	2	573	562	11	26
5,303	1,467	31	3,792	13	190	170	20	346	226	120	27
4,768	1,047	34	3,676	11	81	54	27	219	129	90	28
322	18	...	304	...	3	...	3	5	3	2	29
1,014	60	...	954	...	7	...	7	...	...	...	30
581	69	...	512	...	3	2	1	3	...	3	31
2,080	349	6	1,714	11	32	19	13	179	96	83	32
771	551	28	192	...	36	33	3	32	30	2	33
220,648	51,975	5,898	159,332	3,443	20,706	14,105	6,601	60,368	40,331	20,037	34
28	106	41	22	104	48	147	20	54	133	25	35
62,146	45,482	5,032	11,632	...	13,495	12,713	782	30,881	28,129	2,752	36
158,502	6,493	866	147,700	3,443	7,211	1,392	5,819	29,487	12,202	17,285	37
282	200	...	82	...	...	...	...	416	416	...	38
508	103	27	376	2	28	15	13	71	61	10	39
22	...	2	20	...	1	...	1	...	...	...	40
...	...	...	...	...	...	...	...	...	...	...	41
53	41	3	9	...	4	4	...	26	26	...	42
2	2	...	...	...	...	...	...	...	...	...	43
...	...	...	...	...	...	...	...	3	2	1	44
195	95	21	79	...	21	21	...	39	37	2	45
196	6	1	187	2	8	3	5	16	7	9	46
...	...	...	...	...	...	...	...	...	...	...	47
1,845	159	2	1,675	9	9	...	9	296	44	252	48
0.24	0.33	0.01	0.23	0.27	0.02	...	0.03	0.27	0.14	0.31	49

Table 4B.—DETAILED STATISTICS FOR THE BITUMINOUS COAL INDUSTRY, BY

(For explanation of line captions,

Item	Mountain					
	Wyoming (all producing establishments)			Colorado (all producing establishments)		
	Total	Strip-pit mines	Under-ground mines	Total	Strip-pit mines	Under-ground mines
1 Number of operating companies.....	22	9	16	118	6	114
2 Number of establishments.....	32	9	23	127	7	120
3 Number of mines.....	32	9	23	129	7	122
4 Number of mechanical cleaning plants.....	1	...	1	3	...	3
5 Net production of bituminous coal, total.....1,000 short tons..	2,834	1,438	1,396	2,907	297	2,610
6 From underground operations.....do....	1,396	...	1,396	2,610	...	2,610
7 From strip-pit operations.....do....	1,438	1,438	...	297	297	...
8 From auger operations.....do....	...	...	...	...	...	...
9 Value of shipments.....\$1,000..	11,822	3,743	8,079	15,983	1,164	14,819
10 Value added in mining.....do....	8,857	2,194	6,663	13,480	990	12,490
11 Number of persons engaged, total.....	1,242	208	1,034	2,795	96	2,699
12 Production and development workers.....	1,138	187	951	2,431	86	2,345
13 All other employees.....	84	20	64	187	6	181
14 Proprietors and firm members.....	20	1	19	177	4	173
15 Performing manual labor.....	19	...	19	136	3	133
16 Man-hours worked by production and development workers.....1,000..	1,590	341	1,249	3,229	103	3,126
17 Net coal produced per man-hour.....short tons..	1.78	(³)	1.12	0.90	2.88	0.83
18 Principal expenses designated below, total.....\$1,000..	7,245	2,343	4,902	11,544	557	10,987
19 Wages of production and development workers.....do....	3,916	724	3,192	7,928	333	7,595
20 Salaries of all other employees.....do....	379	81	298	1,007	35	972
21 Raw coal received for mechanical cleaning.....do....	...	...	...	...	...	...
22 Raw coal received for resale without mechanical cleaning.....do....	...	...	...	...	...	...
23 Supplies.....do....	1,789	621	1,168	1,956	145	1,811
24 Purchased fuel.....do....	92	85	7	78	30	48
25 Purchased electric energy.....do....	212	24	188	430	14	416
26 Contract work.....do....	857	808	49	145	...	145
27 Purchased machinery installed.....do....	70	27	43	437	27	410
28 Capital expenditures, total.....do....	55	16	39	543	42	501
29 Development and exploration of mineral property.....do....	1	...	1	93	15	78
30 Cleaning plant construction and major alterations.....do....	...	...	...	22	...	22
31 Other construction.....do....	1	1	...	18	...	18
32 New machinery and equipment.....do....	31	10	21	285	27	258
33 Used plant and equipment.....do....	22	5	17	125	...	125
34 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	114,994	11,147	103,847	76,390	10,386	66,004
35 Per production worker.....	101	60	109	31	121	28
36 Prime movers.....	46,354	8,282	38,072	33,769	9,656	24,113
37 Electric motors driven by purchased energy.....	68,640	2,865	65,775	42,621	730	41,891
38 Horsepower rating of electric motors driven by energy generated at the establishment.....	2,421	...	2,421	3,051	...	3,051
39 Energy used.....million kwh equivalent..	638	228	410	382	11	371
40 Bituminous coal produced and used at same establishment.....1,000 short tons..	77	26	51	44	...	44
41 Fuels purchased:						
42 Bituminous coal and lignite.....do....	...	...	...	...	...	...
43 Distillate fuel oil.....1,000 barrels..	15	13	2	9	5	4
44 Residual fuel oil.....do....	...	...	...	...	...	...
45 Gas (natural and manufactured).....million cu. ft..	...	...	...	...	...	...
46 Other fuels.....\$1,000..	21	19	2	33	8	25
47 Electric energy purchased.....million kwh..	16	1	15	21	1	20
48 Electric energy generated and used.....do....	5	1	4	3	...	3
49 Water intake, including mine water used.....million gallons..	161	36	125	72	...	72
Per production worker.....do....	0.14	0.19	0.13	0.03	...	0.03

xxx Not applicable.

¹Includes data for one "Tipple only", with value of shipments amounting to less than one percent of the total for this group.²Value added is not shown since the cost of supplies, purchased fuel, purchased electric energy, contract work, and purchased machinery installed exceeds capital expenditures.³See table 3A, footnote 2.⁴Cost of coal received for cleaning is included with the cost of supplies.⁵See table 4A, footnote 9.

BITUMINOUS COAL AND LIGNITE MINING

12A-49

GEOGRAPHIC DIVISIONS AND STATES AND BY TYPE OF OPERATION: 1954—Continued

see INTRODUCTION)

Mountain—Continued					Pacific			
Arizona (all producing establishments)	Utah (all under- ground mines)	Montana and New Mexico			Washington and Oregon (all producing establishments)			
		Total	Strip-pit mines	Under- ground mines	Total	Strip-pit and combination strip-pit and underground mines	Underground mines	
3	48	49	4	45	13	4	11	1
3	54	51	4	47	15	4	11	2
3	55	51	4	47	18	6	12	3
...	4	6	...	6	10	3	7	4
11	5,009	1,617	1,114	503	620	311	309	5
11	5,009	503	...	503	561	252	309	6
...	...	1,114	1,114	...	59	59	...	7
...	...	...	...	...	...	...	...	8
68	32,924	4,890	2,289	2,601	4,490	2,221	2,269	9
59	24,020	3,520	1,270	2,250	3,329	1,672	1,657	10
22	3,145	557	26	531	709	383	326	11
21	2,735	437	11	426	660	355	305	12
...	356	60	11	49	40	26	14	13
1	54	60	4	56	9	2	7	14
1	43	46	3	43	6	1	5	15
28	4,351	623	21	602	991	484	507	16
0.39	1.15	2.60	(3)	0.84	0.63	0.64	0.61	17
36	21,005	2,821	1,089	1,732	3,941	1,899	2,042	18
27	10,533	1,218	26	1,192	2,611	1,237	1,374	19
...	2,188	228	44	184	167	113	54	20
...	(4)	...	...	...	(4)	...	(4)	21
...	...	245	...	229	...	...	...	22
9	47,070	19	16	14	4850	378	4472	23
...	104	103	5	103	42	15	27	24
...	814	1,008	998	10	127	57	70	25
...	296	...	...	...	144	99	45	26
...	2,309	253	11	242	42	25	17	27
...	1,689	258	11	247	44	25	19	28
...	62	5	...	5	2	2	...	29
...	5	...	...	...	3	...	3	30
...	77	23	...	23	...	...	...	31
...	1,330	30	11	19	23	7	16	32
...	215	200	...	200	16	16	...	33
37	96,406	26,119	1,395	24,724	26,719	14,230	12,489	34
2	35	60	127	58	40	40	41	35
...	19,098	10,157	1,395	8,762	3,891	3,082	5,809	36
37	77,308	15,962	...	15,962	17,828	11,148	6,680	37
...	1,156	705	...	705	652	...	652	38
...	229	49	24	25	88	42	46	39
...	16	5	3	2	8	4	4	40
...	...	...	...	...	...	...	...	41
...	8	...	...	...	2	2	...	42
...	...	...	...	...	...	...	...	43
...	...	...	...	...	...	...	...	44
...	72	17	5	12	31	4	27	45
...	75	7	...	7	15	7	8	46
...	1	...	...	...	...	...	...	47
...	244	10	...	10	215	13	202	48
...	0.09	0.02	...	0.02	0.33	...	0.66	49

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 5A.—PRODUCTS OF THE BITUMINOUS COAL AND LIGNITE INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES AND FOR ALASKA,
(For explanation of column

Geographic division and State	Value of all products and services, total 1954 (\$1,000)	Net value of all products and services (\$1,000) ¹		Primary products of industry						
				Net coal shipments ¹				Raw coal mined for shipment or use by employees		
				1954		³ 1939 (adjusted)				
		1954	1939 ³ (adjusted)	Quantity (1,000 short tons)	Value (\$1,000)	Quantity (1,000 short tons)	Value (\$1,000)	Quantity (1,000 short tons)		Value 1954 (\$1,000)
								1954	1939	
1 United States and Alaska, total.....	2,057,171	1,795,185	(NA)	391,907	1,790,705	(NA)	(NA)	167,171	(NA)	709,200
BITUMINOUS COAL										
2 United States and Alaska, total.....	2,046,784	1,784,798	(NA)	387,669	1,780,375	(NA)	(NA)	162,933	(NA)	698,870
3 United States, total.....	2,040,200	1,778,336	724,183	387,006	1,773,930	389,181	719,680	162,490	7309,804	695,089
4 Middle Atlantic (Pennsylvania).....	446,866	382,507	187,933	71,673	380,889	92,095	186,617	33,328	71,166	151,875
5 East North Central, total.....	379,487	345,524	135,430	90,452	344,861	83,470	134,958	28,283	761,964	98,227
6 Ohio.....	130,254	119,358	33,182	32,521	119,104	20,192	32,967	18,688	16,814	63,471
7 Indiana.....	69,313	66,106	24,950	16,032	65,719	16,789	24,876	2,614	13,200	10,052
8 Illinois.....	179,920	160,060	75,677	41,899	160,038	46,059	75,494	6,981	31,950	24,704
9 Michigan.....	...	...	1,621	...	...	430	1,621	...	(NA)	...
10 West North Central, total.....	23,377	20,122	18,273	5,093	20,074	8,840	18,273	1,564	6,647	6,282
11 Iowa.....	4,543	4,532	7,160	1,198	4,509	2,936	7,160	1,198	2,936	94,509
12 Missouri.....	12,155	15,590	6,081	3,895	15,565	3,243	6,081	366	2,188	91,778
13 Kansas.....	6,679		5,032			2,661	5,032		1,523	
14 South Atlantic, total.....	738,597	631,747	¹⁰ 217,939	133,663	630,566	¹⁰ 122,940	¹⁰ 217,724	55,400	(NA)	243,671
15 Maryland.....	2,119	2,011	2,962	431	1,942	1,435	2,923	431	(NA)	1,923
16 Virginia.....	99,078	72,057	24,948	15,367	71,987	13,506	24,948	8,131	12,234	33,742
17 West Virginia.....	637,357	557,636	190,029	117,856	556,594	107,999	189,853	46,829	89,232	207,963
18 Georgia.....	43	43	(¹⁰)	9	43	(¹⁰)	(¹⁰)	9	(NA)	43
19 East South Central, total.....	365,935	315,536	111,534	70,814	315,343	59,516	111,397	32,010	47,140	137,203
20 Kentucky.....	267,461	222,424	73,876	53,984	222,297	42,392	73,791	24,051	40,275	99,775
21 Tennessee.....	26,462	25,446	10,036	6,322	25,446	5,150	10,032	5,850	4,830	23,202
22 Alabama.....	72,012	67,663	27,622	10,508	67,600	11,974	27,574	2,109	2,035	14,226
23 West South Central, total.....	15,761	(D)	6,107	2,395	(D)	2,319	6,106	1,710	(NA)	(D)
24 Arkansas.....	3,692	(D)	3,630	480	(D)	1,144	3,630	480	(NA)	(D)
25 Oklahoma.....	12,069	(D)	2,477	1,915	(D)	1,175	2,476	1,230	1,175	(D)
26 Mountain, total.....	65,687	(D)	¹⁰ 40,084	12,297	(D)	¹⁰ 18,312	¹⁰ 39,343	10,167	(NA)	(D)
27 Montana.....	4,158	4,158	4,012	1,489	4,158	2,752	4,010	1,476	2,752	4,070
28 Wyoming.....	11,822	11,822	10,881	2,756	11,241	5,274	10,556	2,745	5,274	11,177
29 Colorado.....	15,983	15,983	14,590	2,922	15,937	5,776	14,258	2,905	4,983	15,847
30 New Mexico.....	732	(D)	3,474	122	(D)	1,193	3,398	97	(NA)	(D)
31 Arizona.....	68	68	¹⁰ 116	11	68	¹⁰ 39	¹⁰ 116	11	(NA)	68
32 Utah.....	32,924	(D)	7,011	4,997	(D)	3,278	7,005	2,933	(NA)	(D)
33 Pacific (Washington and Oregon).....	4,490	(D)	¹⁰ 5,212	619	(D)	¹⁰ 1,674	¹⁰ 5,212	28	⁷ ¹⁰ 307	(D)
34 Alaska.....	6,584	6,462	(NA)	663	6,445	(NA)	(NA)	443	(NA)	3,781
LIGNITE										
35 United States, total.....	10,387	10,387	3,423	4,238	10,330	2,949	3,421	4,238	2,949	10,330
36 East and South.....	10,254	10,254	3,347	4,203	10,197	2,901	3,345	4,203	2,901	10,197
37 West.....	133	133	76	35	133	48	76	35	48	133

D Withheld to avoid approximately disclosing figures for individual companies.

NA Not available.

¹See table L, footnote 4.

²Represents shipments of 171 thousand tons of bituminous coal, valued at \$565 thousand, produced as a secondary product in other mineral industries (123 thousand tons, valued at \$418 thousand, in the fire clay industry; 21 thousand tons, valued at \$66 thousand, in the clay, ceramic, and refractory minerals, n.e.c., industry; 13 thousand tons, valued at \$52 thousand, in the crushed and broken limestone industry; and 9 thousand tons, valued at \$29 thousand, in the sand and gravel industry) and 142 thousand tons, valued at \$488 thousand, produced at State-owned or State-operated mines for use at State institutions. The figures do not include 9 thousand tons of coal produced in the fire clay and crushed and broken limestone industries and used at the producing establishments for power or heat.

³Statistics for 1939 have been adjusted to exclude coal produced and used at the same establishment for power or heat.⁴Represents all coal mechanically cleaned in 1939.

1954 AND 1939; AND BITUMINOUS COAL AND LIGNITE PRODUCED IN OTHER INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954

captions, see INTRODUCTION)

Primary products of industry--Continued										Secondary products and services: 1954		Bituminous coal shipped from operations in other industries ² 1954		
Raw coal mined for cleaning at other establishments: 1954		Mechanically cleaned coal for shipment		Raw and cleaned coal produced for use at same establishment for power or heat (1,000 short tons)		Coal purchased and resold without mechanical cleaning								
Quantity	Value	Quantity (1,000 short tons)		Value 1954			Quantity	Value	Value added in resale	Secondary products ⁵	Receipts for work or services performed for others ⁶	Quantity	Value	
(1,000 short tons)	(\$1,000)	1954	1939 ⁴	(\$1,000)	1954	1939	(1,000 short tons)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(1,000 short tons)	(\$1,000)	
55,513	199,921	224,736	(NA)	1,067,704	764	(NA)	16,690	75,866	13,801	3,179	1,301	313	1,053	1
55,513	199,921	224,736	(NA)	1,067,704	757	(NA)	16,690	75,866	13,801	3,146	1,277	313	1,053	2
55,492	199,799	224,516	79,377	1,065,040	754	2,547	16,690	75,866	13,801	3,146	1,260	313	1,053	3
14,854	55,909	38,345	20,929	227,038	204	489	2,501	10,426	1,976	1,197	421	77	320	4
12,354	32,408	62,169	721,076	246,230	143	1,002	517	1,959	404	447	216	81	257	5
3,334	9,397	13,833	3,378	55,263	2	98	492	1,869	370	70	184	56	151	6
1,354	3,205	13,418	3,589	55,667	35	153	(8)	2	(8)	372	15	23	97	7
7,666	19,806	34,918	14,109	135,300	106	724	25	88	34	5	17	2	9	8
...	...	...	(NA)	...	...	27	...	...	...	...	...	...	...	9
1,182	3,242	3,529	2,193	13,787	3	57	2	18	5	...	48	...	...	10
...	...	...	...	...	1	12	2	18	(9)	...	23	...	...	11
1,182	3,242	2,589	1,055	9,842	...	31	...	...	(9)	...	21	...	...	12
...	...	940	1,138	3,945	2	14	...	...	...	...	4	...	...	13
16,792	63,325	78,263	(NA)	377,464	199	396	11,350	52,956	9,431	684	497	31	136	14
...	...	...	(NA)	...	...	8	27	127	19	6	63	...	...	15
4,222	14,592	7,236	1,272	35,603	24	25	3,636	15,071	2,642	6	64	...	...	16
12,570	48,733	71,027	18,767	341,861	175	363	7,687	37,758	6,770	672	370	31	136	17
...	...	...	...	...	...	...	...	...	...	...	...	...	...	18
9,521	41,928	38,804	12,376	176,193	54	272	2,309	10,418	1,947	163	30	124	340	19
8,454	37,553	29,933	2,117	120,955	31	164	2,012	9,051	1,567	105	22	12	39	20
97	311	472	320	2,045	1	35	236	901	199	...	3	99	261	21
970	4,064	8,399	9,939	53,193	22	73	61	466	181	58	5	13	40	22
39	214	685	(NA)	5,150	1	21	(D)	(D)	(D)	6	47	...	...	23
...	...	...	(NA)	...	1	8	(D)	(D)	(D)	...	1	...	...	24
39	214	685	...	5,150	...	13	...	...	...	6	46	...	...	25
(D)	(D)	2,130	(NA)	14,871	142	294	(D)	(D)	(D)	649	1	...	...	26
...	...	13	...	88	4	4	...	...	...	...	...	...	...	27
...	...	11	...	64	77	99	...	...	...	581	...	...	...	28
...	...	17	793	90	44	147	...	...	...	45	1	...	...	29
...	...	25	(NA)	160	1	37	(D)	(D)	(D)	...	...	...	...	30
...	...	...	...	...	...	...	...	...	...	...	...	...	...	31
(D)	(D)	2,064	(NA)	14,469	16	7	...	...	...	23	...	...	...	32
(D)	(D)	591	7 101,367	4,307	8	16	...	...	...	...	...	...	...	33
21	122	220	(NA)	2,664	3	(NA)	...	...	...	...	17	...	...	34
...	...	...	...	...	7	29	...	...	...	33	24	...	...	35
...	...	...	...	...	7	29	...	...	...	33	24	...	...	36
...	...	...	...	...	...	...	...	...	...	...	...	...	...	37

⁵Represents electric energy generated and sold, 146 million kilowatt hours, valued at \$2,280 thousand; fire clay produced and shipped, 197 thousand tons, valued at \$340 thousand; common clay, 246 thousand tons, valued at \$316 thousand; 624 thousand board feet of rough lumber, including sawed mine timbers and ties, valued at \$40 thousand; hewn or round woods products, valued at \$8 thousand; other products, including crushed and broken limestone, steam, leonodite, and resin concentrates, \$195,000.

⁶Represents principally receipts for services performed for other establishments in the industry, such as coal stripping, hauling, and tipping. Also, includes receipts for services performed for establishments in other industries, for funeral services, and for miscellaneous other services, amounting to \$34 thousand and occurring principally in Pennsylvania. Receipts for mechanical cleaning of coal on a custom basis, which totaled \$2,113 thousand, are excluded, in order to avoid duplication. The full value of custom cleaned coal is included in the figures shown for mechanically-cleaned coal in 1954.

⁷United States total includes, but division totals exclude, data for States for which separate figures are not available.

⁸Less than one-half of the specified unit.

⁹The value added in resale is included with the value of raw coal mined for shipment or for use by employees.

¹⁰Figures for Georgia, Idaho, and Oregon are included with the figures for Arizona.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 5B.—RECEIPTS FOR SERVICES PERFORMED BY THE BITUMINOUS COAL AND LIGNITE MINING CONTRACT SERVICES
INDUSTRY BY GEOGRAPHIC DIVISIONS AND STATES: 1954

Geographic division and State ¹	Total receipts for services	Kind of service performed				
		Strip-pit mining and removal of overburden ²	Auger mining	Sinking mine shafts and driving mine tunnels	Prospect, test, and other drilling	Other products and services ³
United States, total.....	17,596	14,103	1,640	1,324	108	421
East and South.....	15,659	12,220	1,640	1,324	(D)	(D)
Pennsylvania.....	7,766	6,768	(D)	1,324	30	75
Ohio.....	882	814	57		(D)	(D)
West Virginia.....	4,543	2,467	1,332	1,324	(D)	281
Kentucky.....	1,409	1,261	148		...	...
Alabama.....	395	395	...	...	...	...
Other States (Indiana, Iowa, Missouri, North Dakota, Tennessee, Arkansas, and Oklahoma).....	664	515	(D)	...	(D)	(D)
West (Montana, Wyoming, and Washington).....	1,937	1,883	...	...	(D)	(D)

D Withheld to avoid approximately disclosing figures for individual companies.

¹Represents the geographic division and State in which the contractor's report was classified. See table 3A, footnote 1.

²Contractors, in general, did not report receipts for removal of overburden separately from receipts for strip-pit mining. Even where receipts were reported for only one of these services, other information on the report usually indicated that both services had been performed. All receipts for the two services have therefore been combined.

³Includes such other services as cementing, timbering, surface backfilling, opening drift mouths, exploration, pumping, and tipping on a custom basis. Includes also receipts from such secondary activities as hauling, road building, and resale of purchased coke screenings and breeze and mine timbers, amounting in all to about 10 percent of the total of "Other products and services."

BITUMINOUS COAL AND LIGNITE MINING

12A-53

Table 5C.—PRIMARY PRODUCTS OF THE BITUMINOUS COAL INDUSTRY IN THE UNITED STATES, BY COUNTY: 1954 AND 1939

(For explanation of column captions, see INTRODUCTION)

Geographic division, State, and County	Net coal shipments ¹				Raw coal mined 1954				Mechanically cleaned coal for shipment 1954		Raw and cleaned coal produced for use at same estab- lishment for power or heat 1954 (1,000 short tons)	Value added in resale of pur- chased raw coal 1954 (\$1,000)
	1954		1939 ² (adjusted)		For shipment or use by employees		For cleaning at other establishments					
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value		
	(1,000 short tons)	(\$1,000)	(1,000 short tons)	(\$1,000)	(1,000 short tons)	(\$1,000)	(1,000 short tons)	(\$1,000)	(1,000 short tons)	(\$1,000)		
United States, total	387,006	1,773,930	389,181	719,680	162,490	695,089	55,492	199,799	224,516	1,065,040	754	13,801
Middle Atlantic												
Pennsylvania.....	71,673	380,889	92,095	186,617	33,328	151,875	14,854	55,909	38,345	227,038	204	1,976
Allegheny.....	8,315	46,167	12,862	24,374	2,662	11,902	2,189	9,612	5,653	34,011	2	254
Armstrong.....	1,540	6,372	2,845	5,367	1,109	3,982	829	2,385	431	2,105	...	285
Beaver.....	419	1,926	659	1,180	(D)	(D)	(D)	(D)	(D)	(D)	...	(D)
Blair.....	166	718	150	340	166	718	...	...	...	...	...	(D)
Butler.....	1,594	5,797	606	1,229	(D)	(D)	226	685	(D)	(D)	...	(D)
Cambria.....	9,128	54,450	13,657	29,758	2,981	14,934	488	2,270	6,147	39,512	57	4
Centre.....	901	3,221	426	820	901	3,221	...	...	...	...	...	(3)
Clarion.....	1,760	6,617	1,366	2,379	1,760	6,477	61	132	...	...	...	140
Clearfield.....	4,710	18,936	2,885	5,784	4,136	15,532	108	541	574	3,115	1	289
Clinton.....	595	2,293	41	82	595	3,293	...	...	...	...	...	(3)
Elk.....	430	1,670	(NA)	(NA)	(D)	(D)	59	142	(D)	(D)	...	(D)
Fayette.....	11,011	67,834	15,639	34,564	5,174	31,889	(D)	(D)	5,837	35,945	17	(3)
Greene.....	9,329	54,386	3,924	8,675	1,534	6,787	(D)	(D)	7,795	47,599	11	...
Huntingdon.....	279	1,650	463	1,103	(D)	(D)	(D)	(D)	(D)	(D)	...	(D)
Indiana.....	5,018	23,922	5,755	10,374	1,820	7,853	(D)	(D)	3,198	15,954	105	115
Jefferson.....	2,068	8,384	1,741	3,425	1,207	4,885	(D)	(D)	861	3,499	1	(3)
Lawrence.....	657	2,538	(NA)	(NA)	657	3,538	...	...	...	...	...	(3)
Lycoming.....	32	145	55	123	32	145	...	...	...	...	...	...
McKean.....	93	396	(NA)	(NA)	93	396	...	...	...	...	...	...
Mercer.....	637	2,678	217	464	637	3,678	...	...	...	...	...	(3)
Somerset.....	2,599	12,132	4,346	9,273	2,259	10,352	81	282	340	1,780	2	(3)
Tioga.....	71	368	243	591	71	368	...	...	...	...	...	(3)
Venango.....	495	1,822	52	92	(D)	(D)	...	...	(D)	(D)	...	...
Washington.....	7,088	42,873	15,457	29,921	1,493	8,443	8,374	31,209	5,595	34,430	7	...
Westmoreland.....	2,635	13,130	7,296	13,521	1,551	7,654	(D)	(D)	1,084	5,448	1	28
East North Central, total.....	90,452	344,861	83,470	134,958	28,283	98,227	12,354	32,408	62,169	246,230	143	404
Ohio.....	32,521	119,104	20,192	32,967	18,688	63,471	3,334	9,397	13,833	55,263	2	370
Athens.....	626	2,846	1,623	2,935	(D)	(D)	(D)	(D)	(D)	(D)	...	(D)
Belmont.....	6,192	23,984	5,017	8,106	2,882	10,504	...	...	3,310	13,444	1	36
Carroll.....	337	1,192	422	769	337	1,192	...	...	...	...	...	...
Columbiana.....	1,497	5,740	657	967	(D)	(D)	...	...	(D)	(D)	...	(D)
Coshocton.....	884	3,191	228	424	884	3,191	...	...	...	...	...	(3)
Gallia.....	883	3,072	30	58	883	3,072	...	...	...	...	...	...
Guernsey.....	416	1,321	527	840	416	1,321	...	...	...	...	...	...
Harrison.....	7,081	27,577	2,553	3,496	(D)	(D)	(D)	(D)	(D)	(D)	...	...
Hocking.....	128	434	228	396	(D)	(D)	(D)	(D)	...	...	...	...
Jackson.....	480	1,903	192	438	...	...	...	...	...	...	...	...
Jefferson.....	3,339	12,409	4,625	7,187	2,340	8,041	(D)	(D)	1,479	6,271	{	...
Lawrence.....	412	1,402	72	145	412	1,402	...	...	...	...	...	...
Mahoning.....	652	2,481	428	770	652	3,481	...	...	...	...	...	(3)
Meigs.....	865	2,601	171	273	865	2,601	(D)	(D)	...	...	...	...
Morgan.....	1,022	3,118	(NA)	(NA)	21	87	...	...	1,001	3,031	...	...
Muskingum.....	1,030	2,828	915	1,521	(D)	(D)	(D)	(D)	(D)	(D)	...	...
Noble.....	1,303	3,375	(NA)	(NA)	(D)	(D)	...	...	...	...	...	...
Perry.....	1,842	7,041	787	1,372	313	1,203	...	...	1,529	5,838	...	...
Stark.....	827	2,598	577	1,071	687	1,984	(D)	(D)	(D)	(D)	...	(D)
Tuscarawas.....	2,212	8,194	885	1,681	(D)	(D)	...	...	(D)	(D)	1	(D)
Vinton.....	172	763	103	202	(D)	(D)	...	...	(D)	(D)	...	...
Indiana.....	16,032	65,719	16,789	24,876	2,614	10,052	1,354	3,205	13,418	55,667	35	...
Clay.....	962	3,619	1,308	2,311	(D)	(D)	...	...	(D)	(D)	2	...
Greene.....	924	3,679	2,133	3,293	...	...	(D)	(D)	...	...	1	...
Knox.....	1,411	5,199	2,102	2,883	270	1,060	{	...	2,065	7,818	{	...
Pike.....	2,149	7,293	3,381	4,003	(D)	(D)	...	...	(D)	(D)	2	...
Sullivan.....	1,279	(D)	1,477	2,546	140	(D)	(D)	(D)	1,139	4,088	6	...
Vermillion.....	153	616	484	736	(D)	(D)	...	...	(D)	(D)	...	...
Vigo.....	2,699	9,979	3,245	5,028	529	2,037	...	...	2,170	7,942	4	...
Warrick.....	5,484	(D)	1,247	1,550	464	(D)	(D)	(D)	5,020	25,060	...	...
Illinois.....	41,899	160,038	46,059	75,494	6,981	24,704	7,666	19,806	34,918	135,300	106	34
Fulton.....	6,364	23,937	3,784	5,378	304	1,217	...	...	6,060	22,720	5	...
Gallatin.....	96	339	46	70	96	339	...	...	...	...	...	...
Grundy.....	21	192	123	321	(D)	(D)	306	1,144	(D)	(D)	...	(D)
Knox.....	394	1,544	757	1,203	(D)	(D)	(D)	(D)	(D)	(D)	2	...
Madison.....	982	3,729	1,763	2,629	(D)	(D)	...	...	(D)	(D)	13	...
Peoria.....	419	1,853	1,168	2,383	(D)	(D)	...	...	(D)	(D)	1	...
Perry.....	3,284	(D)	3,136	4,530	56	(D)	(D)	(D)	3,228	11,373	7	...
Randolph.....	1,634	5,053	1,212	1,563	37	100	...	...	1,597	4,953	...	...
St. Clair.....	2,831	9,392	2,411	3,663	168	756	...	...	2,663	8,636	11	...
Saline.....	2,703	(D)	3,599	6,481	667	(D)	(D)	(D)	2,036	8,683	2	...

See footnotes at end of table.

Table 5C.—PRIMARY PRODUCTS OF THE BITUMINOUS COAL INDUSTRY IN THE UNITED STATES, BY COUNTY: 1954 AND 1939—Continued

Geographic division, State, and County	Net coal shipments ¹				Raw coal mined 1954				Mechanically cleaned coal for shipment 1954		Raw and cleaned coal produced for use at same estab- lishment for power or heat 1954 (1,000 short tons)	Value added in resale of pur- chased raw coal 1954 (\$1,000)	
	1954		1939 ² (adjusted)		For shipment or use by employees		For cleaning at other establishments						
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value					
	(1,000 short tons)	(\$1,000)	(1,000 short tons)	(\$1,000)	(1,000 short tons)	(\$1,000)	(1,000 short tons)	(\$1,000)	(1,000 short tons)	(\$1,000)			
East North Central— Continued													
Illinois—Continued													
Sangamon.....	119	619	2,048	3,728	119	619	...	...	...	...	...	...
Schuyler.....	22	121	50	94	22	121	...	...	...	...	...	...
Vermilion.....	819	3,213	1,902	3,535	(D)	(D)	...	...	(D)	(D)	2	...
Williamson.....	5,523	(D)	2,379	3,744	533	(D)	(D)	(D)	4,990	18,856	7	(D)	
Michigan.....	...	...	430	1,621	...	...	...	...	...	...	...	...
West North Central, total.....	5,093	20,074	8,840	18,273	1,564	6,282	1,182	3,242	3,529	13,787	3	5	
Iowa.....	1,198	4,509	2,936	7,160	1,198	34,509	...	...	...	...	1	(³)
Appanoose.....	133	637	344	857	133	637	...	...	...	...	1	...
Davis.....	81	290	(NA)	(NA)	81	290	...	...	...	...	...	...
Mahaska.....	148	530	270	550	148	530	...	...	...	...	...	...
Marion.....	619	2,153	528	1,114	619	2,153	...	...	...	...	...	...
Monroe.....	106	392	103	218	106	392	...	...	...	...	...	...
Wapello.....	49	196	180	385	49	196	...	...	...	...	...	...
Missouri.....	(D)	(D)	3,243	6,081	(D)	(D)	(D)	(D)	2,589	9,842	...	(D)	
Adair.....	62	290	96	169	62	290	...	...	...	...	...	...
Bates.....	700	2,643	(NA)	(NA)	2	13	...	...	698	2,630	...	...
Henry.....	884	3,150	638	1,100	17	83	...	...	867	3,067	...	...
Lafayette.....	17	105	248	604	17	105	...	...	...	...	...	...
Randolph.....	669	2,700	454	848	9	42	...	...	660	2,658	...	...
Kansas.....	(D)	(D)	2,661	5,032	(D)	(D)	(D)	(D)	940	3,945	2	...	
Cherokee.....	573	2,390	(NA)	(NA)	136	617	{	(D)	(D)	940	3,945	{	2
Crawford.....	503	2,172	1,717	3,168		(D)	(D)	{	(D)		{	..	
South Atlantic, total..	133,663	630,566	4122,940	4217,724	55,400	243,671	16,792	63,325	78,263	377,464	199	9,431	
Maryland, total.....	431	1,942	1,435	2,923	431	1,923	...	...	...	...	...	19
Allegany.....	171	886	847	1,795	171	886	...	...	...	...	...	...
Garrett.....	260	1,056	587	1,127	260	1,037	...	...	...	...	...	19
Virginia.....	15,367	71,987	13,506	24,948	8,131	33,742	4,222	14,592	7,236	35,603	24	2,642	
Buchanan.....	5,661	26,333	4,281	7,619	2,880	10,843	1,153	4,019	2,781	14,467	2	1,023	
Dickenson.....	3,231	14,647	1,551	2,611	(D)	(D)	837	2,948	(D)	(D)	15	216	
Lee.....	654	3,559	1,194	2,426	(D)	(D)	225	906	{	(D)	(D)	...	
Russell.....	696	3,183	(NA)	(NA)	(D)	(D)			{	(D)	(D)	1	98
Tazewell.....	1,170	5,844	2,748	5,267	905	3,979	1,988	6,673	{	265	1,711	1	154
Wise.....	3,926	18,266	2,935	5,449	3,110	13,253			{	816	3,862	5	1,151
West Virginia.....	117,856	556,594	107,999	189,853	46,829	207,963	12,570	48,733	71,027	341,861	175	6,770	
Barbour.....	3,039	12,025	1,428	2,342	1,662	35,739	1,086	4,492	{	1,377	6,286	...	
Boone.....	5,681	25,838	3,246	5,824	839	3,820			{	4,842	22,018	3	...
Brooke.....	1,123	4,838	1,533	2,596	(D)	(D)	(D)	(D)	(D)	(D)	...	...
Clay.....	589	2,993	(NA)	(NA)	(D)	(D)	(D)	(D)	(D)	(D)	...	...
Fayette.....	5,772	31,316	11,059	22,383	2,941	14,964	253	919	2,831	16,192	12	160	
Gilmer.....	74	215	(NA)	(NA)	74	215	...	...	...	...	...	...
Grant.....	132	572	(NA)	(NA)	(D)	(D)	...	...	(D)	(D)	...	...
Greenbrier.....	1,040	4,941	1,487	2,763	704	33,402	241	824	336	1,539	...	(³)	
Hancock.....	384	1,825	256	288	(D)	(D)	(D)	(D)	(D)	(D)	...	(D)	
Harrison.....	7,420	27,823	3,538	5,325	(D)	(D)	...	...	(D)	(D)	...	(D)
Kanawha.....	7,148	32,425	6,333	11,173	3,565	314,912	(D)	(D)	3,583	17,513	...	(³)	
Lewis.....	624	1,950	(NA)	(NA)	(D)	(D)	(D)	(D)	(D)	(D)	...	...
Logan.....	15,442	66,894	14,810	23,774	2,538	10,082	1,415	4,018	12,904	56,660	11	152	
McDowell.....	17,798	102,467	20,209	37,104	7,364	38,498	4,350	21,390	10,434	60,050	80	3,919	
Marion.....	8,653	41,451	7,937	12,664	4,718	325,014	...	...	3,935	16,437	6	(³)
Mason.....	186	668	70	118	186	3668	...	...	...	...	...	(³)
Mercer.....	1,407	7,943	3,008	5,440	683	3,726	69	259	724	3,899	8	318	
Mineral.....	63	278	173	413	63	278	...	...	...	...	...	...
Mingo.....	6,823	30,229	3,049	4,895	1,412	35,971	(D)	(D)	5,411	24,258	5	(³)	
Monongalia.....	6,964	28,361	6,619	8,970	2,638	10,279	(D)	(D)	4,326	17,902	...	180	
Nicholas.....	4,270	19,441	57	86	2,036	8,751	(D)	(D)	2,234	10,539	3	151	
Pocahontas.....	371	1,571	(NA)	(NA)	371	1,571	...	...	...	...	...	...
Preston.....	2,040	7,097	612	1,073	2,040	6,876	(D)	(D)	...	...	...	221
Putnam.....	65	291	(NA)	(NA)	65	291	...	...	...	...	...	...
Raleigh.....	5,910	31,701	13,156	24,707	1,766	39,301	981	3,437	4,144	22,400	28	(³)	
Randolph.....	1,058	5,457	1,002	1,884	1,058	5,450	...	...	...	...	...	7
Taylor.....	452	1,379	419	681	452	31,379	...	...	...	...	...	(³)
Upshur.....	1,127	4,140	68	100	(D)	(D)	...	...	(D)	(D)	...	36
Webster.....	590	3,313	(NA)	(NA)	(D)	(D)	...	...	(D)	(D)	...	(D)
Wyoming.....	8,513	43,390	2,726	5,490	1,467	38,093	1,679	4,994	7,046	35,297	18	(³)	
Georgia (Walker County).....	9	43	(⁴)	(⁴)	9	43	...	...	...	...	...	...

See footnotes at end of table.

BITUMINOUS COAL AND LIGNITE MINING

12A-55

Table 5C.--PRIMARY PRODUCTS OF THE BITUMINOUS COAL INDUSTRY IN THE UNITED STATES, BY COUNTY: 1954 AND 1939--Continued

Geographic division, State, and County	Net coal shipments ¹				Raw coal mined 1954				Mechanically cleaned coal for shipment 1954		Raw and cleaned coal produced for use at same estab- lishment for power or heat 1954 (1,000 short tons)	Value added in resale of pur- chased raw coal 1954 (\$1,000)
	1954		1939 ² (adjusted)		For shipment or use by employees		For cleaning at other establishments					
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value		
	(1,000 short tons)	(\$1,000)	(1,000 short tons)	(\$1,000)	(1,000 short tons)	(\$1,000)	(1,000 short tons)	(\$1,000)	(1,000 short tons)	(\$1,000)		
East South Central, total	70,814	315,343	59,516	111,397	32,010	137,203	9,521	41,928	38,804	176,193	54	1,947
Kentucky.....	53,984	222,297	42,392	73,791	24,051	99,775	8,454	37,553	29,933	120,955	31	1,567
Bell.....	1,259	5,951	1,612	2,843	1,003	4,607	(D)	(D)	256	1,258	...	86
Boyd.....	217	848	26	45	(D)	(D)	...	...	(D)	(D)	...	...
Breathitt.....	792	3,897	(NA)	(NA)	(D)	(D)	...	...	(D)	(D)	...	(D)
Butler.....	97	376	11	19	97	376	...	...	...	...	...	...
Carter.....	90	424	(NA)	(NA)	90	424	...	...	...	...	...	...
Clay.....	549	2,691	174	325	549	2,180	...	...	...	...	...	511
Daviess.....	617	1,419	106	123	617	1,419	...	...	...	...	...	...
Floyd.....	4,539	26,218	4,499	8,276	1,533	³ 6,821	2,466	11,646	3,006	19,397	...	(³)
Harlan.....	5,757	31,781	12,245	23,887	4,625	25,238	2,937	15,234	1,132	6,309	7	234
Henderson.....	247	757	94	157	247	757	...	...	...	...	...	...
Hopkins.....	12,482	39,000	3,698	5,062	1,183	3,337	647	1,620	11,299	35,663	1	...
Jackson.....	113	460	195	347	113	460	...	...	...	...	...	...
Johnson.....	309	1,254	(NA)	(NA)	(D)	(D)	37	153	(D)	(D)	1	(D)
Knott.....	598	2,181	434	752	(D)	(D)	(D)	(D)	(D)	(D)	...	(D)
Knox.....	128	506	645	1,107	128	³ 506	...	...	...	...	...	(³)
Laurel.....	105	374	50	85	105	374	...	...	...	...	...	...
Lee.....	91	416	18	30	91	416	...	...	...	...	...	...
Leslie.....	2,227	9,007	(NA)	(NA)	1,839	³ 7,665	(D)	(D)	338	1,342	...	(³)
Letcher.....	4,340	21,984	3,760	6,718	1,883	7,303	982	3,835	2,457	14,578	...	103
McCreary.....	314	1,123	(NA)	(NA)	314	³ 1,123	...	...	...	...	...	(³)
Morgan.....	21	100	(NA)	(NA)	21	100	...	...	...	...	...	...
Muhlenberg.....	5,109	14,662	2,308	2,709	1,327	3,723	...	...	3,782	10,939	1	...
Ohio.....	1,702	4,882	255	346	(D)	(D)	...	...	(D)	(D)	...	...
Perry.....	4,081	17,161	4,096	7,241	2,216	8,689	(D)	(D)	1,865	8,390	2	82
Pike.....	5,319	24,088	4,277	7,211	2,992	12,533	970	3,839	2,327	11,509	17	46
Pulaski.....	60	231	(NA)	(NA)	60	231	...	...	...	...	...	...
Rockcastle.....	61	244	24	34	61	³ 244	...	...	...	...	...	(³)
Whitley.....	277	1,009	283	599	277	1,009	...	...	...	...	1	...
Tennessee.....	6,322	25,446	5,150	10,032	5,850	23,202	97	311	472	2,045	1	199
Anderson.....	459	2,121	969	1,954	(D)	(D)	...	...	(D)	(D)	1	...
Campbell.....	764	3,874	1,366	2,809	521	³ 2,719	(D)	(D)	243	1,155	...	(³)
Claiborne.....	327	1,377	1,211	2,285	(D)	(D)	(D)	(D)	(D)	(D)	...	...
Cumberland.....	103	377	9	17	103	377	...	...	...	...	...	...
Fentress.....	65	240	(NA)	(NA)	65	³ 240	...	...	...	...	...	(³)
Grundy.....	488	1,890	(NA)	(NA)	488	³ 1,890	...	...	...	...	...	(³)
Hamilton.....	86	302	24	43	86	302	...	...	...	...	...	...
Marion.....	1,837	6,906	(NA)	(NA)	1,837	6,821	...	...	...	...	...	85
Morgan.....	467	1,993	(NA)	(NA)	(D)	(D)	...	...	(D)	(D)	...	(D)
Putnam.....	794	3,143	22	41	794	3,143	...	...	...	...	...	...
Rhea.....	45	178	(NA)	(NA)	45	³ 178	...	...	...	...	...	(³)
Scott.....	539	1,830	125	234	539	³ 1,830	...	...	...	...	...	(³)
Sequatchie.....	242	824	(NA)	(NA)	242	824	...	...	...	...	...	...
Van Buren.....	30	110	(NA)	(NA)	30	110	...	...	...	...	...	...
Alabama.....	10,508	67,600	11,974	27,574	2,109	14,226	970	4,064	8,399	53,193	22	181
Bibb.....	41	259	604	1,457	(D)	(D)	...	...	(D)	(D)	...	...
Blount.....	150	979	128	311	150	³ 979	(D)	(D)	...	...	...	(³)
Jefferson.....	7,276	48,162	7,084	16,182	1,209	9,742	547	2,065	6,067	38,407	20	13
Marion.....	228	1,613	249	724	118	³ 802	151	633	110	811	...	(³)
Shelby.....	80	474	391	1,058	63	369	...	...	17	105	...	...
Tuscaloosa.....	608	2,659	123	240	294	1,241	...	...	314	1,418	2	...
Walker.....	2,101	13,312	2,277	5,021	254	³ 1,135	238	1,147	1,847	12,177	...	(³)
West South Central, total	2,395	(D)	2,319	6,106	1,710	(D)	39	214	685	5,150	1	(D)
Arkansas.....	480	(D)	1,144	3,630	480	(D)	...	...	...	...	1	(D)
Johnson.....	213	1,657	192	530	213	³ 1,657	...	...	...	...	...	(³)
Sebastian.....	229	1,576	425	1,188	229	1,576	...	...	...	...	...	...
Oklahoma.....	1,915	(D)	1,175	2,476	1,230	(D)	39	214	685	5,150	...	...
Haskell.....	453	3,386	(NA)	(NA)	(D)	(D)	...	...	(D)	(D)	...	...
Le Flore.....	277	1,800	217	573	(D)	(D)	39	214	(D)	(D)	...	...
Okmulgee.....	326	1,764	231	432	326	1,764	...	...	...	...	...	...
Mountain, total.....	12,297	(D)	⁴ 18,312	⁴ 39,343	10,167	(D)	(D)	(D)	2,130	14,871	142	(D)
Montana.....	1,489	4,158	2,752	4,010	1,476	4,070	...	...	13	88	4	...
Musselshell.....	361	1,719	735	1,385	361	1,719	...	...	...	...	1	...
Wyoming.....	2,756	11,241	5,274	10,556	2,745	11,177	...	...	11	64	77	...
Carbon.....	231	835	(NA)	(NA)	231	835	...	...	...	...	2	...
Sheridan.....	435	1,371	(NA)	(NA)	435	1,371	...	...	...	...	...	...
Sweetwater.....	1,225	6,872	(NA)	(NA)	1,225	6,872	...	...	...	...	51	...

See footnotes at end of table.

Table 5C.—PRIMARY PRODUCTS OF THE BITUMINOUS COAL INDUSTRY IN THE UNITED STATES, BY COUNTY: 1954 AND 1939—Continued

Geographic division, State, and County	Net coal shipments ¹				Raw coal mined 1954				Mechanically cleaned coal for shipment 1954		Raw and cleaned coal produced for use at same estab- lishment for power or heat 1954 (1,000 short tons)	Value added in resale of pur- chased raw coal 1954 (\$1,000)
	1954		1939 ² (adjusted)		For shipment or use by employees		For cleaning at other establishments					
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value		
	(1,000 short tons)	(\$1,000)	(1,000 short tons)	(\$1,000)	(1,000 short tons)	(\$1,000)	(1,000 short tons)	(\$1,000)	(1,000 short tons)	(\$1,000)		
Mountain—Continued												
Colorado.....	2,922	15,937	5,776	14,258	2,905	15,847	...	...	17	90	44	...
Boulder.....	34	204	597	1,696	34	204	...	...	...	...	...	...
Delta.....	42	237	58	138	42	237	...	...	...	...	1	...
Fremont.....	179	734	508	1,271	(D)	(D)	...	...	(D)	(D)	...	...
Garfield.....	30	192	37	84	30	192	...	...	...	...	...	...
Gunnison.....	265	1,400	519	1,175	265	1,400	...	...	...	...	1	...
Huerfano.....	56	322	613	1,541	56	322	...	...	...	...	...	...
La Plata.....	41	207	28	61	41	207	...	...	...	...	...	...
Las Animas.....	922	6,369	1,053	2,450	922	6,369	...	...	...	...	10	...
Mesa.....	38	228	74	155	38	228	...	...	...	...	...	...
Routt.....	439	1,922	695	1,697	(D)	(D)	...	...	(D)	(D)	6	...
Weld.....	623	2,614	1,110	2,839	623	2,614	...	...	...	...	4	...
New Mexico.....	122	(D)	1,193	3,398	97	(D)	...	...	25	160	1	(D)
Colfax.....	67	409	642	1,763	42	249	...	...	25	160	...	...
McKinley.....	35	184	418	1,255	35	184	...	...	...	...	...	...
Arizona (Apache and Navajo)...	11	68	439	4116	11	68	...	...	...	...	...	...
Utah.....	4,997	(D)	3,278	7,005	2,933	(D)	(D)	(D)	2,064	14,469	16	...
Carbon.....	3,886	24,269	2,599	5,601	1,822	9,800	(D)	(D)	2,064	14,469	15	...
Emery.....	1,017	5,437	(NA)	(NA)	1,017	5,437	(D)	(D)	...	...	1	...
Iron.....	34	161	(NA)	(NA)	34	161	...	...	...	...	...	...
Pacific (Washington and Oregon).....	619	(D)	41,674	45,212	28	(D)	(D)	(D)	591	4,307	8	...
Washington.....	(D)	(D)	1,674	5,212	(D)	(D)	(D)	(D)	(D)	(D)	(D)	...
King.....	167	1,239	620	2,043	(D)	(D)	...	...	(D)	(D)	...	...
Lewis.....	37	208	33	86	(D)	(D)	...	...	(D)	(D)	...	...
Oregon.....	(D)	(D)	(NA)	(NA)	(D)	(D)	...	...	...	...	...	...

D Withheld to avoid approximately disclosing figures for individual companies.

NA Not available.

¹See table 1, footnote 4.²See table 5A, footnote 3.³See table 5A, footnote 9.⁴See table 5A, footnote 10.

BITUMINOUS COAL AND LIGNITE MINING

12A-57

Table 6.—GENERAL STATISTICS FOR BITUMINOUS COAL AND LIGNITE MINING ESTABLISHMENTS CLASSIFIED BY EMPLOYMENT SIZE, BY GEOGRAPHIC DIVISIONS AND STATES AND FOR ALASKA: 1954

(For explanation of column captions, see INTRODUCTION)

Geographic division, State, and number of employees in establishment	Number of establish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
Bituminous coal and lignite mining industries (United States), total..	6,855	2,068,183	1,418,384	199,655	19,178	325,769	764,863	109,442	103,975
0.....	565	9,728	5,508	...	...	32	58	2	125
1-4.....	2,616	43,886	29,452	6,061	146	8,615	13,206	478	2,329
5-9.....	1,316	72,260	41,927	8,255	349	12,807	21,834	1,114	2,655
10-19.....	895	105,803	64,349	11,362	690	18,332	32,999	2,651	4,318
20-49.....	654	192,567	125,421	18,516	1,862	31,640	64,332	9,313	13,287
50-99.....	304	247,093	160,683	19,440	1,842	32,479	77,212	9,610	14,381
100-249.....	286	508,628	324,395	42,451	4,706	68,541	171,201	27,077	22,007
250-499.....	147	430,299	325,424	46,079	4,518	74,722	187,495	27,081	21,550
500-999.....	67	398,627	297,018	40,554	4,468	66,169	165,951	28,383	20,719
1,000-2,499.....	4	59,292	44,207	6,937	597	12,432	30,575	3,733	2,604
2,500 and over.....	1								
BITUMINOUS COAL INDUSTRY									
United States, total.....	6,643	2,040,200	1,396,774	197,819	18,994	322,410	757,175	108,474	101,379
0.....	545	9,604	5,419	...	...	29	54	2	117
1-4.....	2,517	41,467	27,732	5,859	145	8,270	12,615	474	1,966
5-9.....	1,274	69,375	39,866	7,997	331	12,345	20,907	1,066	2,332
10-19.....	873	100,888	60,873	11,066	667	17,740	31,701	2,558	4,028
20-49.....	633	183,677	118,879	17,905	1,806	30,528	61,668	8,944	12,876
50-99.....	296	238,343	152,961	18,971	1,756	31,634	75,008	9,156	13,180
100-249.....	286	508,628	324,395	42,451	4,706	68,541	171,201	27,077	22,007
250-499.....	147	430,299	325,424	46,079	4,518	74,722	187,495	27,081	21,550
500-999.....	67	398,627	297,018	40,554	4,468	66,169	165,951	28,383	20,719
1,000-2,499.....	4	59,292	44,207	6,937	597	12,432	30,575	3,733	2,604
2,500 and over.....	1								
Middle Atlantic (Pennsylvania), total.....	1,545	446,866	294,970	45,633	4,864	73,135	173,029	28,635	17,282
0.....	122	3,741	1,913	...	...	14	31	1	37
1-4.....	733	12,581	8,163	1,546	80	2,206	3,887	297	650
5-9.....	231	15,817	9,133	1,412	92	2,262	4,242	294	511
10-19.....	185	24,244	14,693	2,267	208	3,831	7,673	869	1,397
20-49.....	137	40,784	24,873	3,910	357	6,917	13,963	1,561	2,050
50-99.....	40	19,616	15,562	2,352	282	3,849	8,790	1,201	1,327
100-249.....	43	94,235	43,175	6,425	475	10,079	25,400	3,014	2,419
250-499.....	30	76,006	55,908	9,170	839	13,877	34,699	4,845	3,061
500-999.....	21	159,842	121,550	18,551	2,531	30,100	74,344	16,553	5,830
1,000-2,499.....	2								
2,500 and over.....	1								
East North Central, total.....	813	379,487	258,913	27,659	3,173	46,662	114,802	19,309	23,046
0.....	86	1,301	716	...	...	4	4	...	8
1-4.....	219	3,756	2,904	484	10	763	1,235	45	240
5-9.....	138	7,372	5,240	858	59	1,455	2,677	235	306
10-19.....	128	15,533	9,683	1,638	99	2,690	5,331	382	685
20-49.....	104	39,779	26,061	2,954	644	5,606	12,302	3,829	6,794
50-99.....	60	82,716	47,798	3,782	360	6,679	17,502	2,026	3,166
100-249.....	51	110,474	80,429	6,974	1,393	11,755	31,026	8,872	8,314
250-499.....	17	53,192	40,966	5,267	346	8,828	22,146	2,182	1,818
500-999.....	10	65,364	45,116	5,702	262	8,882	22,579	1,738	1,715
Ohio, total.....	517	130,254	90,164	10,015	1,117	17,910	41,181	6,594	6,028
0.....	70	1,008	478	...	...	4	4	...	8
1-4.....	163	2,835	2,182	359	6	557	924	37	203
5-9.....	83	5,050	3,431	496	40	881	1,563	178	245
10-19.....	94	13,432	8,018	1,188	79	2,073	4,075	326	404
20-49.....	69	22,652	16,749	1,918	502	3,935	8,003	3,065	1,699
50-99.....	19	21,404	15,503	1,096	136	2,127	5,206	715	1,930
100-249.....	11	23,566	18,701	1,710	147	2,950	7,757	975	667
250-499.....	4	10,564	8,205	1,172	96	1,924	4,876	628	292
500-999.....	4	29,743	16,897	2,076	111	3,459	8,773	670	580
Indiana, total.....	98	69,313	39,588	4,153	591	6,764	17,663	3,951	6,519
0.....	2	5	5	...	...	...	...	...	...
1-4.....	17	342	252	38	...	65	103	...	9
5-9.....	26	1,275	973	172	9	276	545	28	47
10-19.....	12	768	599	162	11	211	428	30	147
20-49.....	8	3,294	2,825	246	47	418	1,135	254	4,524
50-99.....	19	34,250	12,239	1,161	127	1,912	5,261	717	522
100-249.....	10	19,670	15,395	1,283	331	2,177	5,830	2,415	1,073
250-499.....	4	9,709	7,300	1,091	66	1,705	4,361	507	197

See footnotes at end of table.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table C.—GENERAL STATISTICS FOR BITUMINOUS COAL AND LIGNITE MINING ESTABLISHMENTS CLASSIFIED BY EMPLOYMENT SIZE, BY GEOGRAPHIC DIVISIONS AND STATES AND FOR ALASKA: 1954--Continued

(For explanation of column captions, see INTRODUCTION)

Geographic division, State, and number of employees in establishment	Number of establish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
BITUMINOUS COAL INDUSTRY--Continued									
East North Central--Continued									
Illinois, total.....	198	179,920	129,161	13,491	1,465	21,988	55,958	8,764	10,499
0.....	14	288	233	...	...	...	...	...	...
1-4.....	39	579	470	87	4	141	208	8	28
5-9.....	29	1,047	836	190	10	298	569	29	14
10-19.....	22	1,333	1,066	288	9	406	828	26	134
20-49.....	27	13,833	6,487	790	95	1,253	3,164	510	571
50-99.....	22	27,062	20,056	1,525	97	2,640	7,035	594	714
100-249.....	30	67,238	46,333	3,981	915	6,628	17,439	5,482	6,574
250-499.....	9	32,919	25,461	3,004	184	5,199	12,909	1,047	1,329
500-999.....	6	35,621	28,219	3,626	151	5,423	13,806	1,068	1,135
West North Central, total.....	176	23,377	15,471	1,766	183	3,076	6,193	1,193	798
0.....	17	124	105	...	...	2	2	...	...
1-4.....	73	1,108	881	157	3	229	341	21	94
5-9.....	36	1,337	1,117	231	10	382	514	24	109
10-19.....	27	2,305	1,623	359	12	599	948	48	251
20-49.....	12	4,160	3,246	325	37	628	1,166	204	44
50-99.....	10	14,343	8,499	694	121	1,236	3,222	896	300
100-249.....	1								
Iowa, total.....	73	4,543	3,556	562	40	991	1,549	173	360
0.....	4	78	66	...	...	1	1	...	...
1-4.....	28	593	453	65	1	106	161	3	41
5-9.....	19	907	772	128	5	224	310	18	70
10-19.....	18	1,666	1,250	238	8	433	687	30	246
20-49.....	2	1,299	1,015	131	26	227	390	122	3
50-99.....	2								
Missouri, total.....	69	12,155	7,644	781	69	1,364	2,874	485	187
0.....	9	32	30	...	...	...	...	...	...
1-4.....	32	332	262	71	...	89	130	...	...
5-9.....	10	235	205	61	3	101	121	4	73
10-19.....	4	124	109	56	2	63	83	5	...
20-49.....	9	3,523	2,782	258	18	511	913	112	41
50-99.....	5	7,909	4,256	335	46	600	1,627	364	73
Kansas, total.....	34	6,679	4,271	423	74	721	1,770	535	251
0.....	4	14	9	...	...	1	1	...	...
1-4.....	13	183	166	21	2	34	50	18	...
5-9.....	7	195	140	42	2	57	83	2	19
10-19.....	5	515	264	65	2	103	178	13	5
20-49.....	1	5,772	3,692	295	68	526	1,458	502	227
50-99.....	3								
100-249.....	1								
South Atlantic, total.....	1,985	738,597	494,259	72,609	6,547	120,177	287,103	35,886	43,390
0.....	65	1,295	554	...	...	2	6	...	3
1-4.....	725	12,176	7,291	1,757	30	2,385	3,543	67	670
5-9.....	435	26,476	12,273	2,716	112	4,152	6,869	356	1,055
10-19.....	270	33,603	17,619	3,528	186	5,554	9,289	606	952
20-49.....	198	55,351	33,857	5,613	401	9,361	18,617	1,826	2,659
50-99.....	93	61,175	40,358	6,039	590	9,850	22,782	2,714	6,222
100-249.....	108	179,597	109,813	16,676	1,436	27,294	68,059	7,812	5,352
250-499.....	65	201,013	149,288	20,204	2,377	34,375	88,018	13,795	12,597
500-999.....	25	167,911	123,206	16,076	1,415	27,204	69,920	8,710	13,880
1,000-2,499.....	1								
Maryland, total.....	79	2,119	1,631	352	19	562	1,003	70	110
0.....	11	71	60	...	...	...	...	...	...
1-4.....	41	442	365	101	2	148	219	3	17
5-9.....	16	472	382	97	5	151	242	11	...
10-19.....	8	532	393	97	4	155	324	21	2
20-49.....	3	602	431	57	8	108	218	35	91
Virginia, total.....	607	99,078	61,508	10,730	990	17,324	34,763	4,733	3,994
0.....	23	180	145	...	...	1	3	...	1
1-4.....	237	4,422	2,281	587	5	853	1,168	9	274
5-9.....	143	8,843	3,924	915	22	1,416	2,004	52	...
10-19.....	108	16,020	6,874	1,441	54	2,303	3,337	127	345
20-49.....	56	13,277	7,463	1,455	86	2,562	4,070	318	1,053
50-99.....	22	12,457	7,980	1,320	89	2,058	4,293	384	999
100-249.....	7	8,146	6,543	904	90	1,575	3,540	424	341
250-499.....	8	19,606	15,066	2,456	504	3,839	9,589	2,730	767
500-999.....	3	16,127	11,232	1,652	140	2,717	6,759	689	214

See footnotes at end of table.

BITUMINOUS COAL AND LIGNITE MINING

12A-59

Table 6.—GENERAL STATISTICS FOR BITUMINOUS COAL AND LIGNITE MINING ESTABLISHMENTS CLASSIFIED BY EMPLOYMENT SIZE, BY GEOGRAPHIC DIVISIONS AND STATES AND FOR ALASKA: 1954—Continued

(For explanation of column captions, see INTRODUCTION)

Geographic division, State, and number of employees in establishment	Number of establish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
BITUMINOUS COAL INDUSTRY—Continued									
South Atlantic—Continued									
West Virginia, total.....	1,294	637,357	431,087	61,518	5,538	102,276	251,318	31,083	39,286
0.....	31	1,044	349	...	...	1	3	...	2
1-4.....	442	7,269	4,612	1,060	23	1,369	2,137	55	528
5-9.....	276	17,161	7,967	1,704	85	2,585	4,623	293	906
10-19.....	154	17,051	10,352	1,990	128	3,096	5,628	458	605
20-49.....	139	41,472	25,963	4,101	307	6,691	14,329	1,473	1,515
50-99.....	71	48,718	32,378	4,719	501	7,792	18,489	2,330	5,223
100-249.....	101	171,451	103,270	15,772	1,346	25,719	64,519	7,388	5,011
250-499.....	57	181,407	134,222	17,748	1,873	30,536	78,429	11,065	11,830
500-999.....	22	151,784	111,974	14,424	1,275	24,487	63,161	8,021	13,666
1,000-2,499.....	1								
Georgia, (1-4).....	5	43	33	9	...	15	19	...	...
East South Central, total.....	1,767	365,935	268,259	41,118	3,420	65,954	144,013	19,107	14,620
0.....	217	1,840	1,443	...	...	5	8	1	62
1-4.....	623	9,642	6,654	1,603	7	2,219	2,826	25	206
5-9.....	377	15,607	10,006	2,440	33	3,541	5,517	95	254
10-19.....	226	18,442	12,446	2,833	109	4,312	6,820	444	622
20-49.....	148	32,765	22,935	4,122	275	6,506	11,992	1,092	1,176
50-99.....	67	45,718	30,286	4,509	292	7,440	16,419	1,814	2,136
100-249.....	72	108,340	79,105	10,718	1,213	16,922	40,491	6,380	5,442
250-499.....	27	79,956	62,956	8,945	747	14,243	34,080	4,907	3,410
500-999.....	9	53,625	42,428	6,018	744	10,766	25,860	4,349	1,312
1,000-2,499.....	1								
Kentucky, total.....	1,145	267,461	193,094	29,416	2,371	47,333	105,369	12,030	9,826
0.....	167	1,233	1,048	...	...	4	6	1	4
1-4.....	352	5,158	3,035	797	5	1,072	1,458	22	121
5-9.....	241	10,304	6,340	1,566	23	2,211	3,448	77	53
10-19.....	144	11,517	7,621	1,908	68	2,821	4,270	287	453
20-49.....	106	23,746	17,092	3,010	218	4,865	8,788	795	684
50-99.....	53	38,100	24,481	3,563	234	5,827	12,884	1,510	1,835
100-249.....	57	89,646	64,110	8,356	961	13,262	32,020	5,014	3,257
250-499.....	18	87,757	69,367	10,216	862	17,271	42,495	4,324	3,399
500-999.....	6								
1,000-2,499.....	1								
Tennessee, total.....	409	26,462	20,837	3,960	173	6,325	12,201	928	797
0.....	29	336	168	...	...	1	1	...	58
1-4.....	203	3,621	2,955	643	1	950	1,104	2	38
5-9.....	96	4,074	2,782	621	3	943	1,476	4	148
10-19.....	50	3,839	2,814	510	17	858	1,533	56	107
20-49.....	16	2,889	2,260	384	12	622	1,181	60	151
50-99.....	8	4,504	3,672	572	30	1,065	2,366	164	132
100-249.....	7	7,199	6,186	1,230	110	1,886	4,540	642	163
Alabama, total.....	213	72,012	54,328	7,812	876	12,296	26,443	6,149	3,997
0.....	21	271	227	...	...	...	1	...	...
1-4.....	68	863	664	163	1	197	264	1	47
5-9.....	40	1,229	884	253	7	387	593	14	43
10-19.....	32	3,086	2,011	415	24	633	1,017	101	52
20-49.....	26	6,130	3,583	728	45	1,019	2,023	237	341
50-99.....	6	3,114	2,133	374	28	548	1,169	140	169
100-249.....	8	11,495	8,809	1,132	142	1,774	3,931	724	2,022
250-499.....	9	45,824	36,017	4,747	629	7,738	17,445	4,932	1,323
500-999.....	3								
West South Central, total.....	75	15,761	11,637	1,542	80	2,594	5,802	375	232
0.....	13	717	314	...	...	...	1	...	1
1-4.....	24	372	276	54	2	79	126	2	2
5-9.....	14	827	545	90	2	137	275	3	7
10-19.....	7	1,433	977	98	3	164	343	18	58
20-49.....	7	3,294	2,131	217	13	361	818	94	55
50-99.....	7	9,118	7,394	1,083	60	1,853	4,239	258	109
100-249.....	2								
250-499.....	1								
Arkansas, total.....	33	3,692	2,783	430	27	668	1,564	119	45
0.....	10	60	48	...	...	...	1	...	1
1-4.....	9	129	81	21	...	27	42	...	...
5-9.....	5	139	101	29	1	30	59	...	...
10-19.....	2	679	548	80	3	101	257	15	23
20-49.....	2								
50-99.....	5	2,685	2,005	300	23	510	1,205	104	21

See footnotes at end of table.

Table C.—GENERAL STATISTICS FOR BITUMINOUS COAL AND LIGNITE MINING ESTABLISHMENTS CLASSIFIED BY EMPLOYMENT SIZE, BY GEOGRAPHIC DIVISIONS AND STATES AND FOR ALASKA: 1954--Continued

(For explanation of column captions, see INTRODUCTION)

Geographic division, State, and number of employees in establishment	Number of establish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
BITUMINOUS COAL INDUSTRY--Continued									
West South Central--Continued									
Oklahoma, total.....	42	12,069	8,854	1,112	53	1,926	4,238	256	187
0.....	3	657	266	...	...	...	...	...	...
1-4.....	15	243	195	33	2	52	84	2	2
5-9.....	9	688	444	61	1	107	216	3	7
10-19.....	5	4,048	2,560	235	13	424	904	97	90
20-49.....	5								
50-99.....	2	6,433	5,389	783	37	1,343	3,034	154	88
100-249.....	2								
250-499.....	1								
Mountain, total.....	267	65,687	49,936	6,762	687	9,821	23,622	3,802	1,983
0.....	24	2,331	1,861	248	12	376	622	16	110
1-4.....	116								
5-9.....	40	1,654	1,334	233	18	383	740	50	82
10-19.....	28	12,590	9,406	1,066	128	1,671	3,931	523	157
20-49.....	26								
50-99.....	17	49,112	37,335	5,215	529	7,391	18,329	3,213	1,634
100-249.....	8								
250-499.....	6								
500-999.....	2								
Montana, total.....	27	4,158	2,906	290	48	398	868	200	34
0.....	2	221	178	24	{ ... }	34	65	{ ... }	5
1-4.....	14								
5-9.....	6	2,531	1,506	41	18	74	168	68	29
10-19.....	2								
20-49.....	1	1,406	1,222	225	30	290	635	132	...
50-99.....	1								
100-249.....	1								
Wyoming, total.....	32	11,822	8,857	1,138	84	1,590	3,916	379	33
0.....	5	632	408	35	2	56	121	4	15
1-4.....	10								
5-9.....	2	534	479	47	4	63	156	22	...
10-19.....	4								
20-49.....	5	2,530	1,636	142	20	260	581	98	...
50-99.....	4	8,126	6,334	914	58	1,211	3,058	255	18
250-499.....	2								
Colorado, total.....	127	15,983	13,480	2,431	187	3,229	7,928	1,007	418
0.....	12	218	198	...	...	1	1	...	1
1-4.....	64	1,040	901	143	10	222	374	12	71
5-9.....	16	537	469	94	6	146	276	19	25
10-19.....	11	859	688	133	16	202	478	60	1
20-49.....	13	3,195	2,662	386	42	496	1,360	166	81
50-99.....	7	10,134	8,562	1,675	113	2,162	5,439	750	239
100-249.....	2								
250-499.....	1								
500-999.....	1								
New Mexico, total.....	24	732	614	147	12	225	350	28	24
1-4.....	14	105	92	30	1	41	53	2	24
5-9.....	6	222	170	37	3	60	86	4	
10-19.....	1	405	352	80	8	124	211	22	{ ... }
20-49.....	3								
Arizona, total.....	3	68	59	21	...	28	27	...	...
1-4.....	1	68	59	21	{ ... }	28	27	{ ... }	... ... ...
5-9.....	1								
10-19.....	1								
Utah, total.....	54	32,924	24,020	2,735	356	4,351	10,533	2,188	1,474
0.....	5	43	34	...	...	...	...	...	6
1-4.....	13	184	152	25	1	41	64	2	18
5-9.....	9	466	309	56	2	92	195	6	56
10-19.....	9	1,504	1,282	108	16	242	494	57	17
20-49.....	4	1,140	907	120	7	213	493	34	93
50-99.....	5	4,495	2,417	320	36	540	1,441	191	252
100-249.....	5	8,311	5,561	652	79	1,002	2,564	468	1,032
250-499.....	3	16,781	13,358	1,454	215	2,221	5,282	1,430	
500-999.....	1								

See footnotes at end of table.

Table 6.—GENERAL STATISTICS FOR BITUMINOUS COAL AND LIGNITE MINING ESTABLISHMENTS CLASSIFIED BY EMPLOYMENT SIZE, BY GEOGRAPHIC DIVISIONS AND STATES AND FOR ALASKA: 1954—Continued

(For explanation of column captions, see INTRODUCTION)

Geographic division, State, and number of employees in establishment	Number of establish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
BITUMINOUS COAL INDUSTRY--Continued									
Pacific (Washington and Oregon), total....	15	4,490	3,329	660	40	991	2,611	167	28
0.....	1	87	76	10	1	15	37	1	{
1-4.....	4								
5-9.....	3	285	218	17	5	33	73	9	
10-19.....	2	282	202	41	1	68	176	6	
20-49.....	1								
50-99.....	2								
100-249.....	1	3,836	2,833	592	33	875	2,325	151	16
250-499.....	1								
Alaska, total.....	10	6,584	5,777	315	58	688	2,484	626	1,176
1-4.....	2	327	249	24	4	40	126	23	206
5-9.....	3								
10-19.....	1								
20-49.....	1	6,257	5,528	291	54	648	2,358	603	970
50-99.....	2								
100-249.....	1								
LIGNITE INDUSTRY									
United States, total.....	60	10,387	9,093	505	69	901	2,177	411	628
0.....	10	59	46	...	...	2	2	...	8
1-4.....	30	612	411	47	1	84	120	4	16
5-9.....	9	839	579	75	11	143	271	38	31
10-19.....	2								
20-49.....	5	2,879	2,395	149	23	243	652	195	}
50-99.....	4	5,998	5,662	234	34	429	1,132	174	
East and South (North Dakota, South Dakota, and Texas), total.....	48	10,254	8,986	489	68	875	2,135	410	(D)
0.....	6	40	32	...	...	1	1	...	(D)
1-4.....	23								
5-9.....	8	1,337	897	106	11	202	350	41	47
10-19.....	2								
20-49.....	5	2,879	2,395	149	23	243	652	195	32
50-99.....	4	5,998	5,662	234	34	429	1,132	174	(D)
West (Montana and California), total.....	12	133	107	16	1	26	42	1	(D)
0.....	4	19	14	...	...	1	1	...	(D)
1-4.....	7								
5-9.....	1	114	93	16	1	25	41	1	{
BITUMINOUS COAL AND LIGNITE MINING CONTRACT SERVICES INDUSTRY									
United States, total.....	152	17,596	12,517	1,331	115	2,458	5,511	557	1,968
0.....	10	65	43	...	...	1	2	...	...
1-4.....	69	1,807	1,309	155	...	261	471	...	347
5-9.....	33	6,961	4,958	479	30	911	1,954	103	582
10-19.....	20								
20-49.....	16	6,011	4,147	462	33	869	2,012	174	379
50-99.....	4	2,752	2,060	235	52	416	1,072	280	660
East and South, total.....	147	15,659	10,963	1,227	98	2,253	4,954	441	(D)
0.....	10	65	43	...	...	1	2	...	...
1-4.....	68								
5-9.....	32	15,594	10,920	1,227	98	2,252	4,952	441	(D)
10-19.....	19								
20-49.....	15								
50-99.....	3								
Pennsylvania, total.....	62	7,766	5,482	662	60	1,305	2,657	287	966
0.....	3	30	24	...	...	...	1	...	...
1-4.....	25	813	541	63	...	120	213	...	188
5-9.....	13	658	509	77	7	132	236	17	247
10-19.....	12	2,514	1,943	166	4	347	704	15	209
20-49.....	6	1,967	1,222	171	8	389	726	54	}
50-99.....	3	1,784	1,243	185	41	317	777	201	

See footnotes at end of table.

Table c.—GENERAL STATISTICS FOR BITUMINOUS COAL AND LIGNITE MINING ESTABLISHMENTS CLASSIFIED BY EMPLOYMENT SIZE, BY GEOGRAPHIC DIVISIONS AND STATES AND FOR ALASKA: 1954—Continued

(For explanation of column captions, see INTRODUCTION)

Geographic division, State, and number of employees in establishment	Number of establish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
BITUMINOUS COAL AND LIGNITE MINING CONTRACT SERVICES INDUSTRY—Con.									
East and South--Continued									
Ohio, total.....	17	882	563	64	3	111	226	6	24
0.....	4	20	11	...	...	1	1	...	...
1-4.....	7	143	114	13	...	17	36	...	(D)
5-9.....	5	719	438	51	3	93	189	6	...
20-49.....	1								
West Virginia, total.....	44	4,543	3,054	355	30	584	1,411	130	203
0.....	2	667	537	51	{	87	150	{	69
1-4.....	22								
5-9.....	8	628	495	53	1	95	207	2	25
10-19.....	6	1,452	865	79	13	141	337	56	31
20-49.....	6	1,796	1,157	172	16	261	717	72	78
Kentucky, total.....	5	1,409	1,139	63	4	108	333	15	(D)
1-4.....	1	1,409	1,139	63	4	108	333	15	(D)
5-9.....	3								
20-49.....	1								
Alabama, total.....	4	395	310	29	...	46	121	...	...
1-4.....	3	395	310	29	...	46	121	...	...
20-49.....	1								
Other States, total.....	15	664	415	54	1	99	206	3	135
0.....	1	132	78	20	{	27	52	{	87
1-4.....	10								
5-9.....	3	532	337	34	1	72	154	3	48
10-19.....	1								
West (Montana, Wyoming, and Washington), total.....	5	1,937	1,554	104	17	205	557	116	(D)
1-4.....	1	1,937	1,554	104	17	205	557	116	{
5-9.....	1								
10-19.....	1								
20-49.....	1								
50-99.....	1								

D Withheld to avoid approximately disclosing figures for individual companies.

BITUMINOUS COAL AND LIGNITE MINING

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Table 7.—MONTHLY EMPLOYMENT IN THE BITUMINOUS COAL AND LIGNITE MINING INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES AND IN ALASKA: 1954

Industry, geographic division, and State	Average employment for the year ¹	Number of employees by month											
		January	February	March	April	May	June	July	August	September	October	November	December
Bituminous coal and lignite mining industries (United States and Alaska), total...	219,206	255,044	249,016	236,555	218,665	211,769	208,812	203,652	206,403	205,749	207,829	209,823	210,352
BITUMINOUS COAL INDUSTRY													
United States and Alaska, total.....	217,186	252,845	246,885	234,469	216,693	209,846	206,919	201,781	204,476	203,805	205,776	207,751	208,310
United States, total.....	216,813	252,467	246,496	234,073	216,294	209,466	206,591	201,431	204,103	203,426	205,399	207,395	207,971
Middle Atlantic (Pennsylvania)...	50,497	60,475	59,449	55,894	51,839	49,686	48,507	45,380	46,193	45,796	46,612	46,922	46,991
East North Central, total.....	30,832	36,202	35,578	33,271	30,584	29,452	28,636	27,942	28,791	29,048	29,488	30,218	30,134
Ohio.....	11,132	12,365	12,056	11,665	11,150	10,874	10,722	10,237	10,435	10,706	10,808	11,120	11,057
Indiana.....	4,744	5,736	5,747	5,660	4,781	4,361	4,159	4,145	4,243	4,405	4,473	4,527	4,583
Illinois.....	14,956	18,101	17,775	15,946	14,653	14,217	13,755	13,560	14,113	13,937	14,207	14,571	14,494
West North Central, total.....	1,949	2,492	2,418	2,210	1,735	1,483	1,407	1,389	1,614	1,944	2,150	2,244	2,250
Iowa.....	602	878	852	767	536	427	372	378	423	533	645	699	722
Missouri.....	850	988	951	900	745	677	663	648	759	902	963	987	975
Kansas.....	497	626	615	543	454	379	372	363	432	509	542	558	553
South Atlantic, total.....	79,156	91,080	88,519	85,032	78,781	77,000	76,909	75,816	75,536	74,554	74,381	74,608	75,392
Maryland.....	371	439	435	408	343	310	285	285	301	317	412	428	448
Virginia.....	11,720	13,526	13,346	12,858	11,572	11,148	11,264	11,159	11,155	10,906	11,020	11,156	11,492
West Virginia.....	67,056	77,097	74,719	71,748	66,861	65,542	65,360	64,372	64,080	63,329	62,935	63,006	63,434
Georgia.....	9	18	19	18	5	...	...	...	...	2	14	18	18
East South Central, total.....	44,608	49,539	49,061	47,703	44,303	43,339	42,713	42,410	42,902	42,618	42,939	43,333	43,065
Kentucky.....	31,787	35,406	35,007	33,816	31,303	30,597	30,396	30,442	30,511	30,627	30,811	30,947	30,697
Tennessee.....	4,133	4,369	4,427	4,474	4,146	4,014	3,824	3,549	3,898	4,076	4,086	4,197	4,198
Alabama.....	8,688	9,764	9,627	9,413	8,854	8,728	8,493	8,419	8,493	7,915	8,042	8,189	8,170
West South Central, total.....	1,622	1,933	1,883	1,640	1,245	1,232	1,289	1,337	1,607	1,803	1,866	1,870	1,850
Arkansas.....	457	590	567	412	258	231	299	333	493	593	586	598	610
Oklahoma.....	1,165	1,343	1,316	1,228	987	1,001	990	1,004	1,114	1,210	1,280	1,272	1,240
Mountain, total.....	7,449	9,981	8,830	7,602	7,120	6,572	6,449	6,480	6,782	6,985	7,320	7,508	7,587
Montana.....	338	429	410	362	328	287	272	305	298	314	309	344	351
Wyoming.....	1,222	2,079	1,461	1,191	1,130	1,124	1,089	1,047	1,032	1,073	1,148	1,145	1,136
Colorado.....	2,618	3,150	3,062	2,689	2,433	2,260	2,213	2,151	2,354	2,513	2,718	2,866	2,942
New Mexico.....	159	275	253	186	158	138	127	102	103	119	138	148	145
Arizona.....	21	27	27	27	27	12	12	12	12	12	27	27	27
Utah.....	3,091	4,021	3,617	3,147	3,044	2,751	2,736	2,863	2,983	2,954	2,980	2,978	2,986
Pacific (Washington and Oregon)...	700	765	758	721	687	702	681	677	678	678	643	692	702
Alaska.....	373	378	389	396	399	380	328	350	373	379	377	356	339
LIGNITE INDUSTRY													
United States, total.....	574	631	623	583	554	501	481	478	498	543	635	654	634
East and South (North Dakota, South Dakota, and Texas).....	557	606	599	564	546	495	476	473	493	532	609	626	607
West (Montana and California)...	17	25	24	19	8	6	5	5	5	11	26	28	27
BITUMINOUS COAL AND LIGNITE MINING CONTRACT SERVICES INDUSTRY													
United States, total.....	1,446	1,568	1,508	1,503	1,418	1,422	1,412	1,393	1,429	1,401	1,418	1,418	1,408
East and South, total.....	1,325	1,442	1,389	1,387	1,301	1,305	1,302	1,282	1,311	1,278	1,290	1,292	1,284
Pennsylvania.....	722	748	736	752	706	749	746	696	720	713	692	703	703
Ohio.....	67	63	65	64	63	65	69	61	69	65	68	69	63
West Virginia.....	385	471	409	390	384	375	383	409	380	353	377	358	340
Kentucky.....	67	96	95	96	69	44	45	41	54	56	60	69	79
Alabama.....	29	29	28	28	30	30	30	30	28	28	28	28	29
Other States (Indiana, Iowa, Missouri, North Dakota, Tennessee, Arkansas, and Oklahoma).....	55	35	56	57	49	42	29	45	60	63	65	65	70
West (Montana, Wyoming, and Washington).....	121	126	119	116	117	117	110	111	118	123	128	126	124

¹Represents the sum of the average employment figures for the year as shown in the separate establishment reports. These are the averages shown in other tables of this report. Because of roundings, the sum of such average figures may differ slightly from the average of the January to December totals shown above.

MINERAL INDUSTRIES--INDUSTRY STATISTICS

Table 8.—GENERAL STATISTICS FOR BITUMINOUS COAL AND LIGNITE ESTABLISHMENTS CLASSIFIED BY OUTPUT PER MAN-HOUR, BY TYPE OF OPERATION, AND BY GEOGRAPHIC DIVISIONS: 1954

(For explanation of column captions, see INTRODUCTION)

Industry, geographic division, and short tons of coal produced per man-hour	Number of establish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and develop- ment workers (1,000)	Wages and salaries		New capital expendi- tures (\$1,000)
				Production and develop- ment workers	All other employees		Production and develop- ment workers (\$1,000)	All other employees (\$1,000)	
BITUMINOUS COAL INDUSTRY									
United States, total.....	6,643	2,040,200	1,396,774	197,819	18,994	322,410	757,175	108,474	101,379
Strip-pit operations:									
Mines only, total.....	1,095	176,207	119,337	10,882	1,100	20,696	44,267	5,298	13,601
Less than 0.40.....	4	61	47	10	...	17	25	...	1
0.40-0.79.....	39	1,701	1,226	293	17	552	1,039	67	80
0.80-1.19.....	76	9,165	6,684	1,093	90	2,285	4,147	352	515
1.20-1.59.....	108	17,751	12,142	1,571	144	3,231	6,048	674	1,153
1.60-1.99.....	84	12,989	8,972	1,012	100	1,984	4,115	398	1,161
2.00-2.39.....	72	19,789	13,496	1,220	122	2,331	5,028	553	1,274
2.40-2.79.....	46	14,090	9,840	838	121	1,612	3,665	579	394
2.80-3.19.....	35	14,587	10,264	764	100	1,425	3,768	569	547
3.20-3.59.....	10	1,099	656	82	18	95	272	80	54
3.60-3.99.....	13	6,067	4,738	317	28	581	1,454	135	436
4.00 and over.....	37	27,744	20,881	1,040	110	1,842	5,239	751	215
Unclassified ¹	571	51,164	30,391	2,642	250	4,741	9,467	1,140	7,771
Mines with mechanical cleaning plant, total...	97	138,859	92,635	5,989	1,395	10,966	29,795	9,499	9,075
0.40-0.79.....	2	3,410	2,022	339	34	619	1,279	167	556
0.80-1.19.....	8								
1.20-1.59.....	5	1,146	832	104	19	173	352	106	112
1.60-1.99.....	7	4,209	2,978	327	38	590	1,522	307	196
2.00-2.39.....	10	11,957	8,568	573	175	1,211	2,972	1,056	1,545
2.40-2.79.....	4	2,871	1,624	160	18	282	753	114	18
2.80-3.19.....	9	12,775	10,155	659	123	1,217	3,373	757	926
3.20-3.59.....	6	14,054	11,136	627	122	1,153	3,488	717	3,475
3.60-3.99.....	14	27,954	22,520	1,148	142	2,173	6,249	865	612
4.00 and over.....	9	14,872	12,182	657	77	1,127	3,329	539	799
Unclassified ¹	23	45,611	20,618	1,395	647	2,421	6,478	4,871	836
Underground operations:									
Mines only, total.....	4,633	557,751	450,440	78,371	6,315	123,692	266,476	33,342	19,253
Less than 0.20.....	24	219	179	167	14	254	296	40	228
0.20-0.39.....	166	4,700	3,968	1,527	60	2,493	3,234	189	197
0.40-0.59.....	430	40,325	33,430	9,230	630	14,450	28,130	2,673	580
0.60-0.79.....	488	90,607	76,869	16,011	1,210	24,683	53,771	5,984	2,115
0.80-0.99.....	365	85,381	69,792	12,148	956	19,473	44,033	4,983	2,369
1.00-1.19.....	183	55,539	45,447	7,283	648	10,672	25,570	3,624	2,532
1.20-1.39.....	105	51,505	41,620	5,220	496	8,901	21,181	2,699	4,817
1.40-1.59.....	72	59,755	48,508	5,822	463	9,380	23,598	2,977	2,158
1.60-1.79.....	33	24,186	19,736	1,858	158	3,285	7,901	908	802
1.80-1.99.....	22	12,764	9,805	1,227	111	1,924	5,427	679	264
2.00 and over.....	34	33,563	25,767	2,582	367	4,487	11,400	2,222	1,480
Unclassified ¹	2,711	99,207	75,319	15,296	1,202	23,690	41,935	6,364	1,711
Mines with mechanical cleaning plant, total...	438	871,586	644,153	92,021	9,113	149,400	374,041	54,642	49,780
0.20-0.39.....	11	2,723	2,102	469	33	744	1,427	201	251
0.40-0.59.....	30	24,094	19,245	4,551	310	6,806	16,019	1,726	881
0.60-0.79.....	61	111,079	82,630	16,034	1,034	26,116	63,280	5,731	4,353
0.80-0.99.....	64	115,922	91,415	15,044	1,180	23,157	58,705	7,338	11,101
1.00-1.19.....	65	136,276	107,115	15,101	1,276	24,591	61,102	7,626	5,164
1.20-1.39.....	43	91,780	71,819	8,859	556	14,552	37,790	3,089	6,848
1.40-1.59.....	32	99,964	78,976	8,755	751	15,014	38,596	4,830	6,293
1.60-1.79.....	19	47,283	37,768	4,622	305	7,397	18,893	2,188	1,726
1.80-1.99.....	15	33,922	27,721	2,714	246	4,724	12,276	1,238	4,065
2.00 and over.....	15	39,500	30,737	2,851	214	4,900	12,871	1,483	2,441
Unclassified ¹	83	169,043	94,625	13,021	3,208	21,399	53,082	19,192	6,657
Other operations (mines only), total.....	59	5,491	3,925	358	46	590	1,376	228	513
Less than 1.00.....	2	857	641	107	18	181	405	93	284
1.00-1.99.....	11								
2.00-2.99.....	8	1,267	958	81	11	141	343	59	84
3.00-3.99.....	4	586	471	35	6	60	149	31	8
4.00-4.99.....	2								
5.00-5.99.....	4								
6.00-6.99.....	2	1,625	1,151	70	9	111	268	40	118
Unclassified ¹	26	1,156	704	65	2	97	211	5	19
All other operations (unclassified) ²	321	290,306	86,284	10,198	1,025	17,066	41,220	5,465	9,157

See footnotes at end of table.

BITUMINOUS COAL AND LIGNITE MINING

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Table 8.—GENERAL STATISTICS FOR BITUMINOUS COAL AND LIGNITE ESTABLISHMENTS CLASSIFIED BY OUTPUT PER MAN-HOUR, BY TYPE OF OPERATION, AND BY GEOGRAPHIC DIVISIONS: 1954—Continued

Industry, geographic division, and short tons of coal produced per man-hour	Number of establish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and develop- ment workers (1,000)	Wages and salaries		New capital expendi- tures (\$1,000)
				Production and develop- ment workers	All other employees		Production and develop- ment workers (\$1,000)	All other employees (\$1,000)	
BITUMINOUS COAL INDUSTRY—Continued									
Middle Atlantic (Pennsylvania).....	1,545	446,866	294,970	45,633	4,864	73,135	173,029	28,635	17,282
Strip-pit operations:									
Mines only, total.....	447	52,216	31,858	3,402	341	6,631	12,577	1,371	2,927
Less than 0.40.....	3	57	43	8	...	13	17	...	...
0.40-0.79.....	16	522	382	100	4	194	345	26	38
0.80-1.19.....	28	3,141	2,286	400	44	846	1,390	117	235
1.20-1.59.....	47	9,306	6,096	811	55	1,663	3,092	259	529
1.60-1.99.....	39	5,118	3,489	436	45	832	1,661	141	320
2.00-2.39.....	26	4,888	3,412	309	45	697	1,309	211	209
2.40-2.79.....	17	2,386	1,680	175	21	280	667	79	65
2.80-3.19.....	9	1,545	980	75	11	141	311	44	207
3.20-3.59.....	4	475	303	33	10	40	120	59	6
3.60-3.99.....	2	2,650	1,779	69	12	122	314	80	7
4.00 and over.....	7								
Unclassified ¹	249	22,128	11,408	986	94	1,803	3,351	355	1,311
Mines with mechanical cleaning plant, total.....	11	5,888	3,523	328	32	592	1,426	260	281
0.40-0.79.....	1	4,009	2,753	250	26	438	1,122	236	42
1.20-1.59.....	1								
1.60-1.99.....	2								
2.40-2.79.....	1								
2.80-3.19.....	1	1,879	770	78	6	154	304	24	239
Unclassified ¹	5								
Underground operations:									
Mines only, total.....	932	136,997	110,866	18,528	1,985	29,118	67,869	11,192	3,904
Less than 0.20.....	5	32	23	23	...	29	64	...	12
0.20-0.39.....	38	863	708	287	24	457	714	110	23
0.40-0.59.....	135	12,446	10,454	2,707	281	4,139	8,563	1,200	225
0.60-0.79.....	141	35,788	30,195	5,993	450	8,935	21,468	2,303	1,289
0.80-0.99.....	83	15,117	12,912	2,085	178	3,291	7,884	1,057	210
1.00-1.19.....	33	7,713	6,256	1,074	79	1,599	3,853	477	213
1.20-1.39.....	17	4,779	3,944	525	49	894	2,252	304	7
1.40-1.59.....	13	36,233	29,333	3,118	233	5,556	13,844	1,836	1,104
1.60-1.79.....	11								
1.80-1.99.....	2								
2.00 and over.....	6								
Unclassified ¹	448	14,488	9,928	1,982	618	2,959	5,930	3,381	363
Mines with mechanical cleaning plant, total.....	72	189,029	135,790	21,769	2,337	33,871	84,940	14,946	8,417
0.40-0.59.....	8	9,577	7,677	1,786	124	2,521	6,207	626	531
0.60-0.79.....	14	58,569	42,647	7,779	579	12,774	31,122	3,590	2,933
0.80-0.99.....	18	33,349	26,885	4,580	359	6,425	16,021	2,231	2,635
1.00-1.19.....	12	31,275	23,939	3,400	277	5,325	14,056	1,805	754
1.20-1.39.....	2								
1.40-1.59.....	1								
1.60-1.79.....	2								
2.00 and over.....	1	16,569	13,259	1,139	90	1,897	4,911	681	323
Unclassified ¹	14								
Auger operations (mines only), total.....	8	457	296	41	2	67	158	11	22
Less than 1.00.....	1	315	196	31	2	53	124	11	22
1.00-1.99.....	2								
2.00-2.99.....	1								
3.00-3.99.....	1								
Unclassified ¹	3	142	100	10	...	14	34	...	...
All other operations (unclassified) ²	75	62,279	12,637	1,565	167	2,856	6,059	855	1,731
East North Central, total.....	813	379,487	258,913	27,659	3,173	46,662	114,802	19,309	23,046
Strip-pit operations:									
Mines only, total.....	257	63,725	46,664	3,790	454	7,302	17,115	2,374	6,936
0.40-0.79.....	8	790	567	116	10	217	466	31	16
0.80-1.19.....	15	2,415	1,825	280	26	552	1,150	104	160
1.20-1.59.....	27	4,684	3,550	398	49	936	1,727	209	230
1.60-1.99.....	23	2,750	1,969	241	31	490	1,013	124	451
2.00-2.39.....	19	5,326	3,915	401	36	713	1,710	155	238
2.40-2.79.....	12	4,068	2,558	226	60	516	1,017	258	262
2.80-3.19.....	17	9,654	6,775	488	62	957	2,520	400	296
3.20-3.59.....	2	4,162	3,018	232	19	370	1,058	91	435
3.60-3.99.....	7								
4.00 and over.....	13	18,944	14,407	715	81	1,288	3,759	530	17
Unclassified ¹	114	10,932	8,080	693	80	1,263	2,695	472	4,831

See footnotes at end of table.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 8.—GENERAL STATISTICS FOR BITUMINOUS COAL AND LIGNITE ESTABLISHMENTS CLASSIFIED BY OUTPUT PER MAN-HOUR, BY TYPE OF OPERATION, AND BY GEOGRAPHIC DIVISIONS: 1954—Continued

Industry, geographic division, and short tons of coal produced per man-hour	Number of establish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and develop- ment workers (1,000)	Wages and salaries		New capital expendi- tures (\$1,000)
				Production and develop- ment workers	All other employees		Production and develop- ment workers (\$1,000)	All other employees (\$1,000)	
BITUMINOUS COAL INDUSTRY—Continued									
East North Central—Continued									
Strip-pit operations—Continued									
Mines with mechanical cleaning plant, total.	45	97,218	65,578	3,878	1,145	7,069	19,699	7,808	7,437
0.40-0.79.....	1	1,134	762	133	14	222	559	60	344
0.80-1.19.....	3								
1.60-1.99.....	1								
2.00-2.39.....	5	7,202	5,966	376	120	846	1,943	658	1,368
2.40-2.79.....	2	10,603	8,301	532	101	990	2,757	582	899
2.80-3.19.....	5								
3.20-3.59.....	4								
3.60-3.99.....	9	12,117	9,798	549	116	956	2,917	679	3,254
4.00 and over.....	7	19,492	15,685	743	117	1,423	4,085	698	417
Unclassified ¹	8	11,571	9,272	504	67	870	2,490	487	670
		35,099	15,794	1,041	610	1,762	4,948	4,644	485
Underground operations:									
Mines only, total.....	392	33,402	27,387	5,396	422	8,000	17,191	2,365	1,353
Less than 0.20.....	1	278	222	92	3	143	238	8	1
0.20-0.39.....	16								
0.40-0.59.....	46								
0.60-0.79.....	50	2,229	1,930	707	22	1,052	1,474	48	9
0.80-0.99.....	50	3,419	2,936	797	24	1,120	2,202	70	19
1.00-1.19.....	27	3,234	2,805	537	23	836	1,890	103	146
1.20-1.39.....	6	999	844	147	27	226	523	112	1
1.40-1.59.....	7	1,227	1,058	224	17	263	658	69	28
1.60-1.79.....	8	8,211	6,577	1,157	56	1,553	4,103	344	501
1.80-1.99.....	2								
2.00 and over.....	5								
Unclassified ¹	224	6,771	5,147	678	112	1,162	2,901	677	571
		7,034	5,868	1,057	138	1,645	3,202	934	77
Mines with mechanical cleaning plant, total ³	68	149,223	103,197	13,180	1,006	21,589	54,152	6,023	5,089
0.20-0.39.....	1	720	552	258	7	317	439	23	...
0.40-0.59.....	1								
0.60-0.79.....	4								
0.80-0.99.....	5	2,099	1,832	359	15	532	1,388	60	202
1.00-1.19.....	16	28,991	23,036	3,941	186	6,330	15,238	1,083	965
1.20-1.39.....	9	15,703	13,091	1,986	58	2,913	7,533	333	381
1.40-1.59.....	9	16,453	13,456	1,602	154	2,739	6,665	1,150	561
1.60-1.79.....	4	13,787	11,005	1,256	93	2,071	5,113	572	451
1.80-1.99.....	6	20,723	16,177	1,636	77	2,975	7,850	404	1,732
2.00 and over.....	6	19,717	15,220	1,416	88	2,411	6,550	575	756
Unclassified ^{1 3}	7	31,030	8,828	726	328	1,301	3,376	1,823	41
Auger operations (mines only), total.....	9	413	298	25	2	37	62	5	77
1.00-1.99.....	2	146	125	15	...	23	36	...	74
3.00-3.99.....	1								
5.00-5.99.....	1								
Unclassified ¹	5	267	173	10	2	14	26	5	3
All other operations (unclassified) ²	42	35,506	15,789	1,390	144	2,665	6,583	734	2,154
West North Central, total.....									
Strip-pit operations:	176	23,377	15,471	1,766	183	3,076	6,193	1,193	798
Mines only, total.....	87	7,333	5,679	540	48	990	1,916	304	473
Less than 0.40.....	1	78	41	33	...	37	45	...	1
0.40-0.79.....	7								
0.80-1.19.....	8								
1.20-1.59.....	8	816	593	100	7	185	404	78	32
1.60-1.99.....	8	648	458	55	20	127	200	101	2
2.00-2.39.....	4	1,247	963	63	5	140	250	31	254
2.40-2.79.....	1								
3.20-3.59.....	2								
4.00 and over.....	1	2,947	2,353	129	12	232	539	78	34
Unclassified ¹	2								
	53	1,597	1,271	160	4	269	478	16	150
Mines with mechanical cleaning plant, total.	11	13,588	7,773	590	118	1,107	2,889	845	299
1.20-1.59.....	1	8,121	5,317	406	95	767	2,063	690	275
1.60-1.99.....	1								
2.00-2.39.....	1								
2.40-2.79.....	3								
2.80-3.19.....	...	5,467	2,456	184	23	340	826	155	24
3.60-3.99.....	1								
Unclassified ¹	4								
Underground operations:									
Mines with and without mechanical cleaning plant, total.....	78	2,456	2,019	636	17	979	1,388	44	26
Less than 0.20.....	2	484	396	176	3	270	322	4	3
0.20-0.39.....	12								
0.40-0.59.....	10								
0.60-0.79.....	3	653	564	186	6	280	467	20	13
0.80-0.99.....	1	171	144	35	...	62	107	...	...
Unclassified ¹	1								
	50								
		1,148	915	239	8	367	492	20	10

See footnotes at end of table.

Table 8.—GENERAL STATISTICS FOR BITUMINOUS COAL AND LIGNITE ESTABLISHMENTS CLASSIFIED BY OUTPUT PER MAN-HOUR, BY TYPE OF OPERATION, AND BY GEOGRAPHIC DIVISIONS: 1954—Continued

Industry, geographic division, and short tons of coal produced per man-hour	Number of establish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and develop- ment workers (1,000)	Wages and salaries		New capital expendi- tures (\$1,000)
				Production and develop- ment workers	All other employees		Production and develop- ment workers (\$1,000)	All other employees (\$1,000)	
BITUMINOUS COAL INDUSTRY—Continued									
South Atlantic, total.....	1,985	738,597	494,259	72,609	6,547	120,177	287,103	35,886	43,390
Strip-pit operations (mines with and without mechanical cleaning plant), total.....	138	22,700	15,291	1,418	128	2,628	5,889	574	1,494
0.40-0.79.....	4	272	227	33	3	88	133	10	...
0.80-1.19.....	14	1,044	767	130	9	273	551	23	39
1.20-1.59.....	10	1,041	699	120	8	194	346	34	64
1.60-1.99.....	6	912	611	65	3	142	297	11	13
2.00-2.39.....	18	5,916	3,850	342	33	573	1,368	143	641
2.40-2.79.....	8	3,962	3,017	204	25	410	1,061	169	54
2.80-3.19.....	5	1,982	1,356	102	21	207	548	89	17
3.20-3.59.....	3	799	487	52	8	77	182	20	63
4.00 and over.....	9	2,246	1,707	93	4	153	447	25	110
Unclassified ¹	61	4,526	2,570	277	14	511	956	50	493
Underground operations:									
Mines only, total.....	1,493	194,965	153,206	26,274	1,989	43,179	91,671	10,130	9,753
Less than 0.20.....	9	41	38	40	9	70	92	33	205
0.20-0.39.....	42	1,316	1,063	388	14	674	776	30	74
0.40-0.59.....	114	9,269	7,630	2,073	79	3,554	6,150	347	102
0.60-0.79.....	160	23,097	19,195	4,187	327	6,728	13,597	1,510	545
0.80-0.99.....	158	33,881	25,866	4,873	436	8,255	18,266	2,194	1,165
1.00-1.19.....	63	18,125	14,574	2,295	186	3,411	8,194	1,057	1,228
1.20-1.39.....	42	23,545	18,255	2,402	257	4,428	10,554	1,438	4,282
1.40-1.59.....	25	17,656	14,580	1,535	159	2,395	6,091	860	551
1.60-1.79.....	11	1,868	1,538	220	25	368	731	72	253
1.80-1.99.....	12	6,230	4,904	663	67	1,012	2,998	404	117
2.00 and over.....	12	12,635	10,011	791	135	1,485	3,698	734	300
Unclassified ¹	845	47,302	35,552	6,807	295	10,799	20,524	1,451	931
Mines with mechanical cleaning plant, total.....	182	391,089	285,157	39,656	3,852	65,983	168,562	22,080	26,990
0.20-0.39.....	2	6,628	5,447	1,285	84	1,979	4,674	449	276
0.40-0.59.....	8								
0.60-0.79.....	27	34,054	27,165	5,636	263	9,121	22,798	1,121	891
0.80-0.99.....	29	60,901	46,668	7,701	554	12,382	31,655	3,227	7,345
1.00-1.19.....	22	46,155	36,623	5,200	544	8,523	21,464	3,051	1,257
1.20-1.39.....	24	58,239	43,749	5,126	381	9,005	23,722	2,081	5,903
1.40-1.59.....	17	58,782	46,128	5,426	448	9,159	24,018	2,636	4,855
1.60-1.79.....	9	21,257	17,220	1,965	127	3,181	8,405	1,066	681
1.80-1.99.....	4								
2.00 and over.....	4	19,330	14,798	1,309	142	2,269	5,561	935	1,043
Unclassified ¹	36	85,743	47,359	6,008	1,309	10,364	26,265	7,514	4,739
Auger operations (mines only), total.....	34	3,306	2,330	189	30	309	730	158	403
Less than 1.00.....	1								
1.00-1.99.....	5	323	171	47	15	85	212	82	184
2.00-2.99.....	6	944	789	58	9	96	235	43	84
4.00-4.99.....	2								
5.00-5.99.....	2	1,334	973	46	6	74	156	33	120
6.00-6.99.....	1								
Unclassified ¹	17	705	397	38	...	54	127	...	15
All other operations (unclassified) ²	138	126,537	38,275	5,072	548	8,078	20,251	2,944	4,750
East South Central, total.....	1,768	365,935	268,259	41,188	3,420	65,954	144,013	19,107	14,620
Strip-pit operations:									
Mines only, total.....	117	17,078	11,688	1,161	75	2,154	4,542	414	1,723
0.40-0.79.....	3	39	10	11	...	18	56	...	25
0.80-1.19.....	8	1,399	987	152	2	362	531	20	9
1.20-1.59.....	10	1,256	811	116	9	178	403	58	300
1.60-1.99.....	9	1,656	915	135	12	262	617	60	136
2.00-2.39.....	5	2,078	1,347	112	5	213	383	33	168
2.40-2.79.....	5								
2.80-3.19.....	2	1,799	1,348	105	6	182	460	36	10
3.20-3.59.....	1								
3.60-3.99.....	3	1,466	1,252	60	10	140	304	48	28
4.00 and over.....	3	1,439	1,018	69	6	115	300	62	50
Unclassified ¹	68	5,946	4,000	401	25	684	1,488	97	997
Mines with mechanical cleaning plant, total.....	24	19,804	14,184	1,072	87	1,961	5,270	491	966
0.80-1.19.....	4	1,797	1,114	186	18	366	652	98	212
1.20-1.59.....	2								
1.60-1.99.....	2	867	603	104	10	147	407	50	228
2.00-2.39.....	2								
2.40-2.79.....	1	1,456	607	70	8	104	239	41	...
2.80-3.19.....	2								
3.20-3.59.....	1	3,032	2,154	152	17	343	980	101	191
3.60-3.99.....	4								
4.00 and over.....	2	10,637	8,862	518	30	924	2,814	186	297
Unclassified ¹	4	2,015	844	42	4	77	178	15	38

See footnotes at end of table.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 8.—GENERAL STATISTICS FOR BITUMINOUS COAL AND LIGNITE ESTABLISHMENTS CLASSIFIED BY OUTPUT PER MAN-HOUR, BY TYPE OF OPERATION, AND BY GEOGRAPHIC DIVISIONS: 1954—Continued

Industry, geographic division, and short tons of coal produced per man-hour	Number of establish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and develop- ment workers (1,000)	Wages and salaries		New capital expendi- tures (\$1,000)
				Production and develop- ment workers	All other employees		Production and develop- ment workers (\$1,000)	All other employees (\$1,000)	
BITUMINOUS COAL INDUSTRY—Continued									
East South Central—Continued									
Underground operations:									
Mines only, total.....	1,468	143,521	118,638	21,521	1,339	33,874	67,606	6,572	2,947
0.20-0.39.....	41	1,347	1,166	526	8	908	951	8	54
0.40-0.59.....	102	10,307	8,217	2,409	169	3,906	7,788	658	163
0.60-0.79.....	111	25,082	21,805	4,497	367	7,084	14,640	1,964	259
0.80-0.99.....	80	27,209	23,325	3,831	273	5,995	13,259	1,271	624
1.00-1.19.....	62	12,828	10,899	1,838	129	2,801	6,374	586	429
1.20-1.39.....	32	16,047	13,503	1,459	116	2,402	5,425	639	467
1.40-1.59.....	21	11,010	8,806	863	80	1,501	3,763	387	487
1.60-1.79.....	7	4,295	3,686	388	19	648	1,327	110	19
1.80-1.99.....	6	4,423	3,231	379	36	588	1,572	229	53
2.00 and over.....	9	5,307	3,947	495	38	766	1,940	257	182
Unclassified ¹	997	25,666	20,053	4,836	104	7,275	10,567	463	210
Mines with mechanical cleaning plant, total.....									
0.20-0.39.....	6	766	449	114	5	177	269	10	23
0.40-0.59.....	7	5,530	4,242	1,205	106	1,808	4,039	752	209
0.60-0.79.....	12	14,239	10,722	2,088	173	3,422	7,552	938	514
0.80-0.99.....	10	18,841	15,407	2,277	246	3,652	9,209	1,794	919
1.00-1.19.....	13	24,856	19,550	2,370	217	4,003	9,672	1,389	1,653
1.20-1.39.....	6	12,459	10,736	1,229	75	1,848	4,523	385	452
1.40-1.59.....	5	11,395	8,771	905	92	1,701	4,302	611	680
1.60-1.79.....	4	9,818	7,644	1,142	55	1,756	4,397	348	578
1.80-1.99.....	5	5,409	5,340	479	104	765	1,913	429	2,240
2.00 and over.....	4	7,429	6,184	667	46	1,111	2,951	332	625
Unclassified ¹	23	26,463	17,094	3,099	660	4,707	10,558	3,828	611
Auger operations (mines only), total.....									
1.00-1.99.....	3	510	408	49	3	88	191	16	5
2.00-2.99.....	1								
3.00-3.99.....	2	805	593	54	9	89	235	38	6
5.00-5.99.....	1								
6.00-6.99.....	1								
All other operations (unclassified) ²	56	47,012	16,609	1,756	128	2,838	6,784	760	469
West South Central, total.....									
Strip-pit operations (mines with and without mechanical cleaning plant), total.....	36	8,071	5,101	400	30	748	1,609	189	120
0.80-1.19.....	3	270	163	24	2	54	86	10	40
1.20-1.59.....	1	2,450	1,736	157	13	300	605	88	7
1.60-1.99.....	4								
2.00-2.39.....	3	1,798	1,169	63	1	126	270	8	...
2.40-2.79.....	1								
4.00 and over.....	1								
Unclassified ¹	23	3,553	2,033	156	14	268	648	83	73
Underground operations (mines with and without mechanical cleaning plant), total.....									
0.20-0.39.....	39	7,690	6,536	1,142	50	1,846	4,193	186	112
0.40-0.59.....	6	400	352	73	...	97	224	...	...
0.60-0.79.....	13	5,242	4,407	716	32	1,233	2,758	121	110
0.80-0.99.....	4	1,844	1,619	320	17	467	1,126	65	1
Unclassified ¹	16	204	158	33	1	49	85	...	1
Mountain.....									
Strip-pit operations (mines only), total.....	20	7,196	4,454	284	37	465	1,083	160	64
0.40-0.79.....	1	383	279	35	1	65	138	6	27
1.20-1.59.....	5								
2.40-2.79.....	1	3,176	2,368	222	11	355	854	52	27
2.80-3.19.....	2								
3.60-3.99.....	1								
4.00 and over.....	2								
Unclassified ¹	8	3,637	1,807	27	25	45	91	102	10

See footnotes at end of table.

Table 8.—GENERAL STATISTICS FOR BITUMINOUS COAL AND LIGNITE ESTABLISHMENTS CLASSIFIED BY OUTPUT PER MAN-HOUR, BY TYPE OF OPERATION, AND BY GEOGRAPHIC DIVISIONS: 1954—Continued

Industry, geographic division, and short tons of coal produced per man-hour	Number of establish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and develop- ment workers (1,000)	Wages and salaries		New capital expendi- tures (\$1,000)
				Production and develop- ment workers	All other employees		Production and develop- ment workers (\$1,000)	All other employees (\$1,000)	
BITUMINOUS COAL INDUSTRY—Continued									
Mountain—Continued									
Underground operations (mines with and without mechanical cleaning plant), total.....	247	58,491	45,482	6,478	650	9,356	22,539	3,642	1,919
Less than 0.20.....	1	309	295	100	14	149	217	38	45
0.20-0.39.....	13								
0.40-0.59.....	14	3,900	3,320	922	59	1,125	2,824	349	45
0.60-0.79.....	19	2,919	1,208	253	29	400	935	96	5
0.80-0.99.....	18	6,643	5,484	945	52	1,255	3,152	384	224
1.00-1.19.....	21	25,010	20,083	2,511	317	3,629	8,816	1,961	1,225
1.20-1.39.....	9	7,149	5,861	736	61	1,116	2,786	268	116
1.40-1.59.....	5	4,668	3,724	399	49	644	1,640	276	45
1.60-1.79.....	2								
1.80-1.99.....	2	1,423	1,219	69	17	139	421	76	63
2.00 and over.....	2								
Unclassified ¹	141	6,470	4,288	543	52	899	1,748	194	151
Pacific, total.....	15	4,490	3,329	660	40	991	2,611	167	28
Strip-pit operations (mines with and without mechanical cleaning plant) ⁴	4	2,221	1,672	355	26	484	1,237	113	9
Underground operations (mines with and without mechanical cleaning plant), total.....									
0.40-0.59.....	11	2,269	1,657	305	14	507	1,374	54	19
0.60-0.79.....	2	2,190	1,611	288	13	484	1,313	53	15
Unclassified ¹	4								
Unclassified ¹	5	79	46	17	1	23	61	1	4
LIGNITE INDUSTRY									
United States, total.....	60	10,387	9,093	505	69	901	2,177	411	758
Strip-pit operations (mines only), total.....	46	10,222	8,955	479	68	856	2,115	410	628
0.80-1.19.....	3	141	111	15	4	34	54	13	5
1.20-1.59.....	5	143	103	13	1	32	36	6	3
1.60-1.99.....	2	395	265	34	5	75	111	18	22
2.00-2.39.....	2								
2.40-2.79.....	1	8,953	8,088	380	57	657	1,811	372	559
3.60-3.99.....	1								
4.00 and over.....	8	590	388	37	1	58	103	1	39
Unclassified ¹	24								
Underground operations (mines only), total.....	14	165	138	26	1	45	62	1	130
0.80-0.99.....	1	165	138	26	1	45	62	1	130
Unclassified ¹	13								

¹For strip-pit and auger mines, principally represents reports indicating that a substantial proportion (approximately 10 percent or more) of the production work was performed by contractors, for whom employee man-hours are not included above. For all underground mines, or mines with cleaning plants, represents reports for establishments which indicated that the proprietors or partners regularly worked at the establishment and constituted a substantial part or all of the working force. The man-hours worked by these proprietors and partners are not included above. For mines with cleaning plants, principally represents reports indicating that, in addition to coal from its associated mine, the plant received a substantial proportion of the total coal cleaned from other mines of its own company or from mines of other companies. Significant ratios could not be computed for these groups.

²Represents reports for establishments, with or without cleaning plants, which operated two or more mines with different types of operation, such as strip-pit and underground; strip-pit and auger; or strip-pit, underground, and auger; also, reports for central cleaning plant and reports for separately operated tipplers without mechanical cleaning facilities which purchased raw coal for resale. Significant ratios for these groups could not be computed.

³Data for one central cleaning plant are combined with those for underground mines with mechanical cleaning plant.

⁴Represents 1 strip-pit mine only, 1 strip-pit mine with mechanical cleaning plant, and 2 combination strip-pit and underground mines with mechanical cleaning plant.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 9.—GENERAL STATISTICS FOR BITUMINOUS COAL AND LIGNITE ESTABLISHMENTS CLASSIFIED BY THE RATIO OF WAGES AND SALARIES TO VALUE ADDED IN MINING, BY GEOGRAPHIC DIVISIONS AND FOR ALASKA: 1954

(For explanation of column captions, see INTRODUCTION)

Industry, geographic division, and ratio of wages and salaries to value added in mining	Number of establish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
BITUMINOUS COAL INDUSTRY									
United States, total.....	6,643	2,040,200	1,396,744	197,819	¹ 18,994	322,410	757,175	¹ 108,474	101,379
Less than 0.30.....	664	147,530	84,388	4,883	374	8,376	17,222	1,884	4,898
0.30-0.39.....	588	247,213	156,588	11,769	1,272	21,098	47,938	6,970	12,359
0.40-0.49.....	664	248,365	177,467	17,271	1,504	30,321	71,488	8,382	15,668
0.50-0.59.....	960	342,360	256,876	31,654	2,567	53,192	126,054	14,687	15,166
0.60-0.69.....	913	393,296	283,933	42,777	3,014	69,948	165,894	18,069	27,863
0.70-0.79.....	738	239,243	183,140	33,552	2,423	52,585	122,766	13,351	9,258
0.80-0.89.....	514	216,678	151,404	29,365	2,482	47,585	112,912	13,702	8,558
0.90-0.99.....	226	92,986	54,615	12,618	1,040	18,879	45,719	5,096	1,451
1.00 and over.....	831	103,066	43,072	13,881	1,241	20,411	47,182	6,260	6,045
Unclassified ²	545	9,463	5,291	49	...	15	...	...	114
Middle Atlantic, total.....	1,545	446,866	294,970	45,633	¹ 4,864	73,135	173,029	¹ 28,635	17,282
Less than 0.30.....	160	17,061	9,416	599	61	1,012	1,748	187	540
0.30-0.39.....	139	61,440	29,925	2,341	205	4,434	9,675	1,047	1,708
0.40-0.49.....	142	29,146	20,481	2,140	202	3,815	8,371	1,100	1,520
0.50-0.59.....	205	47,380	36,848	4,628	342	7,498	17,896	2,231	1,287
0.60-0.69.....	198	108,675	76,545	11,347	795	18,378	44,762	4,955	5,612
0.70-0.79.....	148	45,112	34,334	6,148	540	9,595	22,613	3,166	1,792
0.80-0.89.....	133	87,730	55,527	10,362	871	17,200	40,992	4,858	3,241
0.90-0.99.....	60	31,976	21,346	4,904	467	6,975	17,175	2,390	752
1.00 and over.....	256	14,695	8,723	3,150	290	4,224	9,797	1,444	795
Unclassified ²	104	3,651	1,825	14	...	4	...	...	35
East North Central, total.....	813	379,487	258,913	27,659	¹ 3,173	46,662	114,802	¹ 19,309	23,046
Less than 0.30.....	86	63,413	35,407	1,654	164	3,023	7,669	1,011	2,472
0.30-0.39.....	94	65,961	49,249	2,912	455	5,703	14,825	2,416	5,255
0.40-0.49.....	98	83,859	55,282	4,599	460	8,279	21,340	2,769	8,197
0.50-0.59.....	108	68,449	47,679	5,574	416	9,663	23,475	2,479	3,092
0.60-0.69.....	94	40,513	30,927	4,555	301	7,412	18,034	1,775	1,953
0.70-0.79.....	92	38,434	29,054	5,684	316	8,421	19,974	1,752	1,103
0.80-0.89.....	58	7,135	5,166	1,193	74	1,860	4,037	324	36
0.90-0.99.....	19	5,800	3,251	710	88	1,102	2,667	441	19
1.00 and over.....	79	4,652	2,214	775	82	1,196	2,781	392	912
Unclassified ²	85	1,271	684	3	...	3	...	...	7
West North Central, total.....	176	23,377	15,471	1,766	183	3,076	6,193	1,193	798
Less than 0.30.....	31	4,647	3,674	196	16	373	767	106	115
0.30-0.39.....	17	6,763	3,619	271	20	507	1,111	130	281
0.40-0.49.....	15	3,330	2,607	231	29	434	1,012	242	97
0.50-0.59.....	24	2,973	2,287	236	65	464	946	374	264
0.60-0.69.....	23	2,705	1,256	216	13	316	712	117	10
0.70-0.79.....	12	379	308	119	3	182	224	8	3
0.80-0.89.....	14	1,198	935	256	8	424	747	80	14
0.90-0.99.....	5	324	277	100	6	149	237	19	...
1.00 and over.....	19	941	409	140	23	227	437	117	14
Unclassified ²	16	117	99	1	...	...	...	...	...
South Atlantic, total.....	1,985	738,597	494,259	72,609	¹ 6,547	120,177	287,103	¹ 35,886	43,390
Less than 0.30.....	158	33,562	14,498	932	72	1,504	2,765	274	1,383
0.30-0.39.....	138	44,497	28,386	2,598	222	4,254	9,106	1,329	886
0.40-0.49.....	203	77,154	57,661	5,755	450	10,256	23,943	2,409	3,901
0.50-0.59.....	317	127,496	92,907	10,987	1,021	18,488	45,158	5,175	7,614
0.60-0.69.....	327	176,702	125,410	18,096	1,385	30,623	73,158	8,432	17,461
0.70-0.79.....	252	100,877	77,205	13,168	1,007	21,561	51,379	5,387	4,185
0.80-0.89.....	180	82,846	61,569	11,487	1,016	18,812	46,257	5,524	3,776
0.90-0.99.....	81	33,476	19,314	4,434	240	6,976	17,039	1,185	443
1.00 and over.....	253	60,687	16,740	5,140	466	7,700	18,298	2,216	3,738
Unclassified ²	76	1,300	569	12	...	3	...	...	3
East South Central, total.....	1,767	365,935	268,259	41,188	¹ 3,420	65,954	144,013	¹ 19,107	14,620
Less than 0.30.....	187	22,746	17,223	1,307	38	2,108	3,593	222	3,875
0.30-0.39.....	159	54,294	34,672	2,792	250	4,726	10,050	1,340	1,651
0.40-0.49.....	160	40,019	30,506	3,354	245	5,776	12,532	1,265	1,651
0.50-0.59.....	258	78,739	63,150	8,256	572	14,310	31,738	3,443	2,188
0.60-0.69.....	229	53,008	40,361	7,104	431	10,871	23,672	2,227	2,572
0.70-0.79.....	199	47,522	36,624	7,425	459	11,305	24,919	2,609	2,065
0.80-0.89.....	110	33,683	25,129	5,394	457	8,323	18,505	2,645	1,470
0.90-0.99.....	49	17,668	7,579	1,851	172	2,766	6,242	769	...
1.00 and over.....	187	16,419	11,575	3,686	295	5,764	12,762	1,676	799
Unclassified ²	229	1,837	1,440	19	...	5	...	...	...

See footnotes at end of table.

Table 9.—GENERAL STATISTICS FOR BITUMINOUS COAL AND LIGNITE ESTABLISHMENTS CLASSIFIED BY THE RATIO OF WAGES AND SALARIES TO VALUE ADDED IN MINING, BY GEOGRAPHIC DIVISIONS AND FOR ALASKA: 1954—Continued

(For explanation of column captions, see INTRODUCTION)

Industry, geographic division, and ratio of wages and salaries to value added in mining	Number of establish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
BITUMINOUS COAL INDUSTRY—Con.									
West South Central, total.....	75	15,761	11,637	1,542	80	2,594	5,802	375	232
Less than 0.30.....	8	2,102	1,399	79	1	142	323	8	53
0.30-0.39.....	8	2,663	1,913	137	12	264	551	78	
0.40-0.49.....	7	1,331	823	83	7	144	343	45	16
0.50-0.59.....	6	2,362	1,936	301	6	485	1,097	25	53
0.60-0.69.....	12	4,906	3,931	628	25	1,095	2,419	121	68
0.70-0.79.....	6	622	537	89	14	151	338	45	...
0.80-0.89.....	4	88	73	33	...	31	63	...	...
0.90-0.99.....	4	611	440	103	5	162	400	25	42
1.00 and over.....	8	365	275	89	10	120	268	28	
Unclassified ²	12	711	310	...	...	...	...	...
Mountain, total.....	267	65,687	49,936	6,762	687	9,821	23,622	3,802	1,983
Less than 0.30.....	33	43,674	33,453	3,586	382	5,272	12,547	2,208	1,639
0.30-0.39.....	32								
0.40-0.49.....	38	12,353	9,977	1,654	142	2,462	6,015	806	280
0.50-0.59.....	39								
0.60-0.69.....	29	9,660	6,506	1,522	163	2,087	5,060	788	64
0.70-0.79.....	26								
0.80-0.89.....	13	3,352	2,407	535	30	777	2,049	137	8
0.90-0.99.....	7								
1.00 and over.....	28	6,584	5,777	315	58	688	2,484	626	1,176
Unclassified ²	22								
Pacific, total.....	15	4,490	3,329	660	40	991	2,611	167	28
Less than 0.30.....	1	407	318	29	4	53	121	10	3
0.30-0.39.....	1								
0.40-0.49.....	1	731	604	96	6	161	441	20	17
0.50-0.59.....	3								
0.60-0.69.....	1	3,352	2,407	535	30	777	2,049	137	8
0.70-0.79.....	3								
0.80-0.89.....	2	6,584	5,777	315	58	688	2,484	626	1,176
0.90-0.99.....	1								
1.00 and over.....	1	3,837	3,602	129	27	275	1,023	376	889
Unclassified ²	1								
Alaska, total.....	10	6,584	5,777	315	58	688	2,484	626	1,176
Less than 0.30.....	1	3,837	3,602	129	27	275	1,023	376	889
0.30-0.39.....	2								
0.40-0.49.....	1	2,747	2,175	186	31	413	1,461	250	287
0.50-0.59.....	1								
0.70-0.79.....	3	10,387	9,093	505	69	901	2,177	411	628
0.90-0.99.....	1								
1.00 and over.....	1	5,846	5,421	200	31	354	913	172	478
Unclassified ²	1								
LIGNITE INDUSTRY									
United States, total.....	60	10,387	9,093	505	69	901	2,177	411	628
Less than 0.30.....	16	5,846	5,421	200	31	354	913	172	478
0.30-0.39.....	13	2,158	1,886	143	15	256	575	64	95
0.40-0.49.....	5	1,769	1,396	97	15	164	490	150	18
0.50-0.59.....	5	137	82	16	...	25	43	...	18
0.60-0.69.....	9	270	209	32	8	69	105	25	5
0.70-0.79.....	2	159	62	17	...	32	51	...	6
1.00 and over.....	2								
Unclassified ²	8	48	37	...	...	1	...	...	8

¹Includes data for employees at central offices which were not classified by ratio of wages and salaries to value added.²Establishments reporting less than \$500 for wages and salaries.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 10.—HORSEPOWER OF POWER EQUIPMENT USED IN THE BITUMINOUS COAL AND LIGNITE MINING INDUSTRIES,

	Industry, geographic division, State, and type of operation	Aggregate horsepower per production worker	Aggregate horsepower (prime movers and electric motors driven by purchased energy)				
			Total	Loading equipment	Transportation equipment		All other equipment
					Highway type	Other	
1	Bituminous coal and lignite mining industries (United States and Alaska), total.....	32	6,346,457	1,144,114	1,084,232	1,318,961	2,799,150
	BITUMINOUS COAL INDUSTRY						
2	United States, total.....	31	6,092,894	1,036,175	1,017,125	1,302,192	2,737,402
	Geographic Divisions and States						
3	Middle Atlantic (Pennsylvania).....	36	1,627,690	262,509	300,143	327,228	737,810
4	East North Central, total.....	47	1,312,095	302,130	260,062	224,695	525,208
5	Ohio.....	50	496,066	130,341	154,872	54,165	156,688
6	Indiana.....	57	237,308	62,715	52,479	31,028	91,086
7	Illinois.....	43	578,721	109,074	52,711	139,502	277,434
8	West North Central, total.....	80	141,721	43,251	41,240	16,788	40,442
9	Iowa.....	57	31,775	10,281	8,507	453	12,534
10	Missouri.....	78	60,929	19,455	11,170	13,088	17,216
11	Kansas.....	116	49,017	13,515	21,563	3,247	10,692
12	South Atlantic, total.....	24	1,736,368	235,828	224,019	460,398	816,123
13	Maryland.....	45	15,965	4,107	5,222	1,279	5,357
14	Virginia.....	19	201,139	32,109	29,387	54,604	85,039
15	West Virginia.....	25	1,519,264	199,612	189,410	404,515	725,727
16	East South Central, total.....	21	853,281	133,264	133,853	198,460	387,704
17	Kentucky.....	19	552,510	85,397	83,252	141,653	242,208
18	Tennessee.....	20	80,123	17,408	21,904	8,311	32,500
19	Alabama.....	28	220,648	30,459	28,697	48,496	112,996
20	West South Central, total.....	53	81,074	20,264	22,361	6,250	32,199
21	Arkansas.....	48	20,706	4,699	6,819	2,523	6,665
22	Oklahoma.....	54	60,368	15,565	15,542	3,727	25,534
23	Mountain, total.....	46	313,946	34,671	30,541	65,593	183,141
24	Montana.....	55	16,072	1,699	2,608	3,977	7,788
25	Wyoming.....	101	114,994	7,847	6,325	24,721	76,101
26	Colorado.....	31	76,390	8,656	11,059	9,886	46,789
27	New Mexico.....	68	10,047	1,420	1,149	1,638	5,840
28	Arizona.....	2	37	...	...	...	37
29	Utah.....	35	96,406	15,049	9,400	25,371	46,586
30	Pacific (Washington and Oregon).....	40	26,719	4,258	4,906	2,780	14,775
31	Alaska.....	47	14,930	2,545	7,035	354	4,996
	Type of Operation ¹						
32	Producing operations, total.....	31	6,054,903	1,032,067	1,014,451	1,290,191	2,718,194
33	Strip-pit operations:						
34	Mines only.....	121	1,297,710	420,841	507,872	60,866	308,131
35	Mines with mechanical cleaning plant.....	94	566,433	158,128	133,859	83,551	190,895
36	Combination strip-pit and underground operations:						
37	Mines only.....	58	30,544	7,316	10,168	3,343	9,717
38	Mines with mechanical cleaning plant.....	27	46,520	7,798	5,883	11,020	21,819
39	Underground operations:						
40	Mines only.....	19	1,492,909	138,383	148,205	423,795	782,526
41	Mines with mechanical cleaning plant.....	24	2,197,127	226,567	92,604	668,789	1,209,167
42	Auger operations (mines only).....	114	40,667	5,624	17,348	697	16,998
43	Combination strip-pit and auger operations:						
44	Mines only.....	98	156,170	42,119	65,164	9,120	39,767
45	Mines with mechanical cleaning plant.....	79	30,050	10,300	9,165	4,091	6,494
46	Combination underground and auger operations:						
47	Mines only.....	19	7,604	725	1,492	1,889	3,498
48	Mines with mechanical cleaning plant.....	24	39,514	5,037	5,057	5,891	23,529
49	Combination strip-pit, underground, and auger operations (mines only and mines with mechanical cleaning plant).....	58	45,989	6,792	6,325	13,859	19,013
50	Central cleaning plants.....	56	92,098	1,391	7,063	3,035	80,609
51	Tipple without mechanical cleaning facilities.....	24	11,568	1,046	4,246	245	6,031
52	Nonproducing operations.....	257	37,991	4,108	2,674	12,001	19,208

See footnotes at end of table.

BY GEOGRAPHIC DIVISIONS AND STATES, TYPE OF OPERATION; AND IN ALASKA: 1954

Prime movers (horsepower)							Electric motors (horsepower)							
Total	By type of equipment				By use		Total	By type of equipment			By source of energy			
	Loading equipment	Transportation equipment		All other equipment	Driving generators	Not driving generators		Loading equipment	Trans- portation equip- ment	All other equipment	Driven by purchased energy	Driven by energy generated at the estab- lishment		
		Highway type	Other											
2,670,080	542,113	1,084,232	213,172	830,563	312,211	2,357,869	3,800,439	618,141	1,155,081	2,027,217	3,676,377	124,062	1	
2,469,236	475,324	1,017,125	197,715	779,072	307,097	2,162,139	3,740,344	576,446	1,147,536	2,016,362	3,623,658	116,686	2	
758,769	174,919	300,143	23,627	260,080	126,596	632,173	917,340	93,330	322,801	501,209	868,921	48,419	3	
656,610	134,164	260,062	100,570	161,814	39,961	616,649	676,218	171,217	131,554	373,447	655,485	20,733	4	
368,192	97,358	154,872	26,041	89,921	18,561	349,631	134,461	34,395	30,173	69,893	127,874	6,587	5	
117,438	16,253	52,479	18,263	30,443	12,522	104,916	128,703	47,188	16,540	64,975	119,870	8,833	6	
170,980	20,553	52,711	56,266	41,450	8,878	162,102	413,054	89,634	84,841	238,579	407,741	5,313	7	
98,530	22,126	41,240	13,650	21,514	1,498	97,032	43,435	21,132	3,143	19,160	43,191	244	8	
26,275	9,787	8,507	30	7,951	1,117	25,158	5,645	494	428	4,723	5,500	145	9	
34,673	6,018	11,170	10,415	7,070	381	34,292	26,355	13,444	2,673	10,238	26,256	99	10	
37,582	6,321	21,563	3,205	6,493	...	37,582	11,435	7,194	42	4,199	11,435	...	11	
504,493	80,673	224,019	31,451	168,350	62,127	442,366	1,258,200	157,851	440,630	659,719	1,231,875	26,325	12	
12,569	3,557	5,222	...	3,790	172	12,397	3,418	550	1,284	1,584	3,396	22	13	
69,016	14,449	29,387	3,200	21,980	11,914	57,102	136,758	17,993	53,712	65,053	132,123	4,635	14	
422,908	62,667	189,410	28,251	142,580	50,041	372,867	1,118,024	139,308	385,634	593,082	1,096,356	21,668	15	
288,189	49,162	133,853	20,942	84,232	22,149	266,040	577,656	86,654	180,816	310,186	565,092	12,564	16	
174,543	21,086	83,252	18,416	51,789	18,542	156,001	389,432	66,786	126,326	196,320	377,967	11,465	17	
51,500	14,000	21,904	...	15,596	2,802	48,698	29,440	3,478	8,491	17,471	28,623	817	18	
62,146	14,076	28,697	2,526	16,847	805	61,341	158,784	16,390	95,999	96,395	158,502	282	19	
44,376	8,799	22,361	725	12,491	795	43,581	37,114	11,665	5,525	19,924	36,698	416	20	
13,495	2,858	6,819	725	3,093	...	13,495	7,211	1,841	1,798	3,572	7,211	...	21	
30,881	5,941	15,542	...	9,398	795	30,086	29,903	9,824	3,727	16,352	29,487	416	22	
109,378	4,610	30,541	6,750	67,477	53,184	56,194	211,901	31,185	60,209	120,507	204,568	7,333	23	
5,013	235	2,608	650	1,520	830	4,183	11,297	1,546	3,345	6,406	11,059	238	24	
46,354	1,650	6,325	2,330	36,049	34,450	11,904	71,061	6,608	22,704	41,749	68,640	2,421	25	
33,769	2,010	11,059	2,190	18,510	14,215	19,554	45,672	6,791	8,442	30,439	42,621	3,051	26	
5,144	120	1,149	...	3,875	1,200	3,944	5,370	1,300	1,745	2,325	4,903	467	27	
...	...	...	...	...	...	...	37	...	...	37	37	...	28
19,098	595	9,400	1,580	7,523	2,489	16,609	78,464	14,940	23,973	39,551	77,308	1,156	29	
8,891	871	4,906	...	3,114	787	8,104	18,480	3,412	2,858	12,210	17,828	652	30	
13,830	2,380	7,035	72	4,343	845	12,985	1,678	210	505	963	1,100	578	31	
2,456,495	473,429	1,014,451	195,240	773,375	306,147	2,150,348	3,715,094	574,233	1,138,010	2,002,851	3,598,408	116,686	32	
1,203,406	363,468	507,872	60,289	271,777	15,390	1,188,016	97,932	59,528	577	37,827	94,304	3,628	33	
315,382	44,445	133,859	79,638	57,440	2,175	313,207	252,168	113,958	3,913	134,297	251,051	1,117	34	
21,743	5,845	10,168	...	5,730	710	21,033	8,876	1,471	3,383	4,022	8,801	75	35	
14,014	1,681	5,883	3,590	2,860	475	13,539	32,956	6,192	7,620	19,144	32,506	450	36	
374,546	3,262	148,205	11,304	211,775	178,726	195,820	1,177,691	142,414	434,567	600,710	1,118,363	59,328	37	
266,716	4,454	92,604	22,749	146,909	105,553	161,163	1,981,855	227,840	666,696	1,087,319	1,930,411	51,444	38	
39,752	5,574	17,348	667	16,163	737	39,015	1,344	120	30	1,194	915	429	39	
146,241	36,722	65,164	9,045	35,310	345	145,896	10,026	5,397	115	4,514	9,929	97	40	
20,257	2,734	9,165	4,091	4,267	...	20,257	9,793	7,566	...	2,227	9,793	...	41	
2,932	260	1,492	...	1,180	250	2,682	4,790	465	1,946	2,379	4,672	118	42	
15,614	427	5,057	275	9,855	...	15,614	23,900	4,610	5,616	13,674	23,900	...	43	
19,119	3,399	6,325	3,105	6,290	415	18,704	26,870	3,393	10,754	12,723	26,870	...	44	
11,477	1,058	7,063	387	2,969	1,368	10,109	80,621	333	2,648	77,640	80,621	...	45	
5,296	100	4,246	100	850	3	5,293	6,272	946	145	5,181	6,272	...	46	
12,741	1,895	2,674	2,475	5,697	950	11,791	25,250	2,213	9,526	13,511	25,250	...	47	

Table 10.—HORSEPOWER OF POWER EQUIPMENT USED IN THE BITUMINOUS COAL AND LIGNITE MINING INDUSTRIES,

Industry, geographic division, State, and type of operation		Aggregate horsepower per production worker	Aggregate horsepower (prime movers and electric motors driven by purchased energy)				
			Total	Loading equipment	Transportation equipment		All other equipment
					Highway type	Other	
LIGNITE INDUSTRY							
1	United States, total.....	148	74,590	40,085	17,735	4,240	12,530
Geographic Divisions							
2	East and South.....	145	70,714	38,926	15,845	4,180	11,763
3	West.....	242	3,876	1,159	1,890	60	767
Type of Operation							
4	Strip-pit mines.....	153	73,452	39,781	17,237	4,170	12,264
5	Underground mines.....	44	1,138	304	498	70	266
BITUMINOUS COAL AND LIGNITE MINING CONTRACT SERVICES INDUSTRY							
6	United States, total.....	123	164,043	65,309	42,337	12,175	44,222
Geographic Divisions and States							
7	East and South, total.....	106	129,621	45,399	40,005	3,040	41,177
8	Pennsylvania.....	110	73,135	26,493	25,936	540	20,166
9	Ohio.....	160	10,225	3,935	2,882	...	3,408
10	West Virginia.....	98	34,929	11,641	9,663	1,300	12,325
11	Kentucky.....	70	4,383	750	200	1,200	2,233
12	Alabama.....	32	930	690	...	...	240
13	Other States.....	111	6,019	1,890	1,324	...	2,805
14	West (Montana, Wyoming, and Washington).....	331	34,422	19,910	2,332	9,135	3,045
Type of Operation							
15	Strip-pit mining and removing overburden.....	146	127,728	57,370	30,568	11,185	28,605
16	Strip-pit mining, removing overburden, and auger mining.....	73	10,417	3,351	3,826	...	3,240
17	Strip-pit mining, removing overburden, and other contract services.....	86	8,127	2,230	2,949	540	2,408
18	Auger mining.....	109	9,229	1,198	2,316	...	5,715
19	Other contract services ²	63	8,542	1,160	2,678	450	4,254

¹Represents establishments in the United States only.²See table 4A, footnote 3.

BITUMINOUS COAL AND LIGNITE MINING

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BY GEOGRAPHIC DIVISIONS AND STATES, TYPE OF OPERATION; AND IN ALASKA: 1954—Continued

Prime movers (horsepower)							Electric motors (horsepower)						
Total, all equipment	By type of equipment			By use		Total, all equipment	By type of equipment			By source of energy			
	Loading equipment	Transportation equipment		All other equipment	Driving generators		Not driving generators	Loading equipment	Trans- portation equip- ment	All other equipment	Driven by purchased energy	Driven by energy generated at the estab- lishment	
Highway type		Other											
44,835	17,140	17,735	3,210	6,750	814	44,021	30,277	23,445	1,040	5,792	29,755	522	1
41,351 3,484	16,235 905	15,845 1,890	3,210 ...	6,061 689	790 24	40,561 3,460	29,863 414	23,191 254	970 70	5,702 90	29,363 392	500 22	2 3
44,168 667	17,105 35	17,237 498	3,210 ...	6,616 134	775 39	43,393 628	29,784 493	23,176 269	960 80	5,648 144	29,284 471	500 22	4 5
142,179	47,269	42,337	12,175	40,398	3,455	138,724	28,140	18,040	6,000	4,100	21,864	6,276	6
126,557 71,238 10,225 33,762 4,383 930 6,019	44,859 26,373 3,935 11,221 750 690 1,890	40,005 25,936 2,882 9,663 200 ... 1,324	3,040 540 ... 1,300 1,200	38,653 18,389 3,408 11,578 2,233 240 2,805	... ... ... ... ... ... ...	126,557 71,238 10,225 33,762 4,383 930 6,019	3,064 1,897 ... 1,167	540 120 ... 420 ... ... ...	... ... ... ... ... ... ...	2,524 1,777 ... 747	3,064 1,897 ... 1,167 ... ... ...	... ... ... ... ... ... ...	7 8 9 10 11 12 13
15,622	2,410	2,332	9,135	1,745	3,455	12,167	25,076	17,500	6,000	1,576	18,800	6,276	14
108,928 10,417 8,127 9,229 5,478	39,870 3,351 2,230 1,198 620	30,568 3,826 2,949 2,316 2,678	11,185 ... 540 ... 450	27,305 3,240 2,408 5,715 1,730	3,455	105,473 10,417 8,127 9,229 5,478	25,076 3,064	17,500 540	6,000	1,576 2,524	18,800 3,064	6,276	15 16 17 18 19

MINERAL INDUSTRIES--INDUSTRY STATISTICS

Table 11.—NUMBER OF POWER LOADING AND EARTH-MOVING MACHINES AND NET COAL LOADED UNDERGROUND IN THE BITUMINOUS COAL AND LIGNITE MINING INDUSTRIES IN THE UNITED STATES: 1954 AND 1939, AND BY GEOGRAPHIC DIVISIONS AND STATES: 1954

Type of loading and earth-moving equipment	Bituminous coal and lignite mining industries							
	United States and Alaska 1954	United States						Bituminous coal and lignite mining contract services industry 1954 ¹
		All bituminous coal and lignite mining industries		Bituminous coal industry		Lignite industry		
		1954	1939 ²	1954	1939	1954	1939	
Surface loading equipment, total.....	6,980	6,939	1,050	6,165	1,007	166	46	608
By kind of power used:								
Steam.....	18	18	239	18	227	...	12	...
Electric and Diesel-electric.....	507	507	191	464	181	25	10	18
Diesel.....	5,795	5,757	620	{ 5,133 }	599	{ 121 }	24	{ 503 }
Gasoline and other.....	660	657							550	20	87
Power shovels, total.....	2,702	2,692	760	2,414	729	58	31	220
By kind of power used:								
Steam.....	17	17	222	17	212	...	10	...
Electric and Diesel-electric.....	273	273	154	255	144	13	10	5
Diesel.....	2,035	2,028	384	{ 1,818 }	373	{ 27 }	11	{ 183 }
Gasoline and other.....	377	374							324	18	32
By dipper or bucket capacity (cubic yards):								
Less than 3.....	2,272	2,264	598	2,070	578	44	20	150
3-5 inclusive.....	281	279	56	210	53	7	3	62
6-12 inclusive.....	67	67	106	{ 56 }	98	{ 6 }	8	{ 5 }
More than 12.....	82	82							78	1	3
Dragline excavators, total.....	810	809	196	716	187	19	9	74
By kind of power used:								
Steam.....	1	1	9	1	7	...	2	...
Electric and Diesel-electric.....	124	124	37	108	37	9	...	7
Diesel.....	647	646	150	{ 572 }	143	{ 10 }	7	{ 64 }
Gasoline and other.....	38	38							35	...	3
By dipper or bucket capacity (cubic yards):								
Less than 3.....	308	307	126	273	118	7	8	27
3-5 inclusive.....	313	313	49	281	48	3	1	29
6-12 inclusive.....	150	150	21	{ 128 }	21	{ 5 }	...	{ 17 }
More than 12.....	39	39							34	4	1
Carry-all scrapers, total.....	275	270	35	232	35	30	...	8
By kind of power used:								
Electric and Diesel-electric.....	10	10	...	8	...	1	...	1
Diesel.....	246	241	5	{ 205 }	5	{ 29 }	...	7
Gasoline and other.....	19	19						
Bulldozers, total.....	2,944	2,919	427	2,599	427	58	...	262
By kind of power used:								
Electric and Diesel-electric.....	81	81	27	{ 75 }	27	{ 2 }	...	4
Diesel.....	2,741	2,716							2,429	54	...
Gasoline and other.....	122	122	95	2	...	25		
Coal recovery augers, total ⁵	183	183	...	142	...	...	...	41
By kind of power used:								
Electric and Diesel-electric.....	11	11	...	10	...	...	...	1
Diesel.....	98	98	...	83	...	...	...	15
Gasoline and other.....	74	74	...	49	...	...	...	25
All other types of equipment, total ⁶	66	66	62	62	59	1	3	3
By kind of power used:								
Steam.....	...	...	8	...	8	...	...	...
Electric and Diesel-electric.....	8	8	54	{ 8 }	51	{ ... }	...	...
Diesel.....	28	28							26	1	1
Gasoline and other.....	30	30	28	3	2	

See footnotes at end of table.

BITUMINOUS COAL AND LIGNITE MINING

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Table 11.—NUMBER OF POWER LOADING AND EARTH-MOVING MACHINES AND NET COAL LOADED UNDERGROUND IN THE BITUMINOUS COAL AND LIGNITE MINING INDUSTRIES IN THE UNITED STATES: 1954 AND 1939, AND BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

Type of loading and earth-moving equipment	Bituminous coal and lignite mining industries							
	United States and Alaska 1954	United States						Bituminous coal and lignite mining contract services industry 1954 ¹
		All bituminous coal and lignite mining industries		Bituminous coal industry		Lignite industry		
		1954	1939 ²	1954	1939	1954	1939	
Underground loading equipment, total: ⁷								
Number of machines.....	7,579	7,554	5,081	7,545	5,077	3	4	6
Net coal loaded.....1,000 short tons..	242,950	242,810	110,414	242,790	110,414	20	(NA)	...
Continuous mining machines:								
Number of machines.....	323	323	...	323	...	...	...	...
Net coal loaded.....1,000 short tons..	16,327	16,327	...	16,327	...	...	...	...
Scraper loaders (including slushers):								
Number of machines.....	58	44	141	38	141	...	...	6
Net coal loaded.....1,000 short tons..	411	409	1,007	409	1,007	...	...	...
By rated horsepower:								
Less than 10.....	29	15	31	15	31	...	...	...
10-25 inclusive.....	22	22	90	19	90	...	...	3
26-100 inclusive.....	5	5	20	2	20	...	...	3
More than 100.....	2	2	...	2	...	...	...	...
Mobile loading machines:								
Number of machines, total.....	4,357	4,346	1,600	4,343	1,596	3	4	...
Net coal loaded.....1,000 short tons..	206,538	206,400	76,144	206,380	76,144	20	(NA)	...
Loading direct into mine cars:								
Number of machines.....	1,220	1,214	(NA)	1,213	(NA)	1	...	...
Net coal loaded.....1,000 short tons..	41,579	41,441	(NA)	41,427	(NA)	14	...	...
Loading direct onto conveyors:								
Number of machines.....	434	429	(NA)	429	(NA)	...	...	...
Net coal loaded.....1,000 short tons..	11,349	11,349	(NA)	11,349	(NA)	...	...	...
Loading into shuttle cars:								
Number of machines.....	2,613	2,613	(NA)	2,611	(NA)	2	...	...
Net coal loaded.....1,000 short tons..	153,610	153,610	(NA)	153,604	(NA)	6	...	...
Loading in conjunction with continuous mining machines:								
Number of machines ⁸	90	90	(NA)	90	(NA)	...	...	...
Duckbills and self-loading conveyors:								
Number of machines.....	636	636	576	636	576	...	...	...
Net coal loaded.....1,000 short tons..	4,671	4,671	6,759	4,671	6,759	...	...	...
Hand-loaded face or room conveyors:								
Number of machines.....	2,205	2,205	2,764	2,205	2,764	...	...	...
Net coal loaded.....1,000 short tons..	15,003	15,003	26,504	15,003	26,504	...	...	...

See footnotes at end of table.

Table 11.—NUMBER OF POWER LOADING AND EARTH-MOVING MACHINES AND NET COAL
IN THE UNITED STATES: 1954 AND 1939, AND BY

Type of loading and earth-moving equipment		Bituminous coal industry and bituminous coal and lignite mining contract services industry, 1954				
		Middle Atlantic (Pennsylvania)	East North Central			
			Total	Ohio	Indiana	Illinois
1	Surface loading equipment, total.....	2,462	1,815	1,222	260	333
	By kind of power used:					
2	Steam.....	...	2	...	...	2
3	Electric and Diesel-electric.....	63	258	76	66	116
4	Diesel.....	2,187	1,355	1,016	154	185
5	Gasoline and other.....	212	200	130	40	30
6	Power shovels, total.....	1,007	706	507	91	108
	By kind of power used:					
7	Steam.....	...	1	...	...	1
8	Electric and Diesel-electric.....	19	153	51	35	67
9	Diesel.....	842	443	379	37	27
10	Gasoline and other.....	146	109	77	19	13
	By dipper or bucket capacity (cubic yards):					
11	Less than 3.....	953	504	416	53	35
12	3-5 inclusive.....	51	110	67	14	29
13	6-12 inclusive.....	1	40	11	11	18
14	More than 12.....	2	52	13	13	26
15	Dragline excavators, total.....	330	241	121	54	66
	By kind of power used:					
16	Steam.....	...	1	...	...	1
17	Electric and Diesel-electric.....	20	60	15	19	26
18	Diesel.....	303	165	101	30	34
19	Gasoline and other.....	7	15	5	5	5
	By dipper or bucket capacity (cubic yards):					
20	Less than 3.....	133	67	30	19	18
21	3-5 inclusive.....	144	94	62	16	16
22	6-12 inclusive.....	51	55	23	11	21
23	More than 12.....	2	25	6	8	11
24	Carry-all scrapers, total.....	59	76	54	6	16
	By kind of power used:					
25	Electric and Diesel-electric.....	2	5	2	...	3
26	Diesel.....	53	60	44	3	13
27	Gasoline and other.....	4	11	8	3	...
28	Bulldozers, total.....	1,028	741	500	104	137
	By kind of power used:					
29	Electric and Diesel-electric.....	20	39	8	12	19
30	Diesel.....	976	658	469	80	109
31	Gasoline and other.....	32	44	23	12	9
32	Coal recovery augers, total ⁵	28	35	34	1	...
	By kind of power used:					
33	Electric and Diesel-electric.....	2	...	...	...	...
34	Diesel.....	7	22	21	1	...
35	Gasoline and other.....	19	13	13	...	...
36	All other types of equipment, total ⁶	10	16	6	4	6
	By kind of power used:					
37	Steam.....	...	...	...	...	...
38	Electric and Diesel-electric.....	...	1	...	...	1
39	Diesel.....	6	7	2	3	2
40	Gasoline and other.....	4	8	4	1	3

See footnotes at end of table.

LOADED UNDERGROUND IN THE BITUMINOUS COAL AND LIGNITE MINING INDUSTRIES
GEOGRAPHIC DIVISIONS AND STATES: 1954--Continued

Bituminous coal industry and bituminous coal and lignite mining contract services industry, 1954--Continued												
West North Central				South Atlantic				East South Central				
Total	Iowa	Missouri	Kansas	Total	Maryland	Virginia	West Virginia	Total	Kentucky	Tennessee	Alabama	
342	131	112	99	1,176	61	109	1,006	723	334	203	186	1
14	...	5	9	...	...	...	...	1	...	...	1	2
47	4	31	12	35	...	9	26	44	38	1	5	3
208	88	57	63	1,052	57	92	903	640	275	199	166	4
73	39	19	15	89	4	8	77	38	21	3	14	5
115	43	42	30	442	26	44	372	283	121	96	66	6
14	...	5	9	...	...	...	...	1	...	...	1	7
30	2	21	7	9	...	5	4	31	26	1	4	8
33	15	9	9	397	23	34	340	237	86	93	58	9
38	26	7	5	36	3	5	28	14	9	2	3	10
82	42	24	16	403	26	33	344	218	74	88	56	11
16	1	8	7	33	...	11	22	49	33	8	8	12
4	...	2	2	5	...	...	5	8	7	...	1	13
13	...	8	5	1	...	...	1	8	7	...	1	14
67	37	13	17	27	5	...	22	77	38	15	24	15
...	...	...	...	...	...	...	...	...	...	...	...	16
11	2	7	2	3	...	...	3	8	7	...	1	17
47	32	5	10	22	5	...	17	69	31	15	23	18
9	3	1	5	2	...	...	2	...	...	...	...	19
38	24	3	11	13	3	...	10	31	15	5	11	20
19	12	5	2	11	2	...	9	24	7	9	8	21
8	...	4	4	2	...	...	2	18	13	1	4	22
2	1	1	...	1	...	...	1	4	3	...	1	23
17	4	4	9	46	2	4	40	27	6	2	19	24
1	...	1	...	...	...	...	...	1	1	...	...	25
16	4	3	9	43	2	4	37	25	4	2	19	26
...	...	...	...	3	...	...	3	1	1	...	...	27
125	40	48	37	551	27	52	472	314	152	86	76	28
1	...	1	...	14	...	4	10	3	3	...	...	29
109	35	40	34	527	27	48	452	297	145	86	66	30
15	5	7	3	10	...	...	10	14	4	...	10	31
...	...	...	...	103	...	9	94	17	15	2	...	32
...	...	...	...	9	...	...	9	...	...	...	...	33
...	...	...	...	59	...	6	53	10	8	2	...	34
...	...	...	...	35	...	3	32	7	7	...	...	35
18	7	5	6	7	1	...	6	5	2	2	1	36
...	...	...	...	...	...	...	...	...	...	...	...	37
4	...	1	3	...	...	...	...	1	1	...	...	38
3	2	...	1	4	...	...	4	2	1	1	...	39
11	5	4	2	3	1	...	2	2	...	1	1	40

Table 11.--NUMBER OF POWER LOADING AND EARTH-MOVING MACHINES AND NET COAL LOADED UNDERGROUND IN THE BITUMINOUS COAL AND LIGNITE MINING INDUSTRIES IN THE UNITED STATES: 1954 AND 1939, AND BY GEOGRAPHIC DIVISIONS AND STATES: 1954--Continued

Type of loading and earth-moving equipment	Bituminous coal industry and bituminous coal and lignite mining contract services industry, 1954--Cont.										
	West South Central			Mountain						Pacific (Washington and Oregon)	Alaska
	Total	Arkansas	Oklahoma	Total	Montana	Wyoming	Colorado	New Mexico	Utah		
Surface loading equipment, total.....	138	40	98	95	16	48	25	4	2	22	41
By kind of power used:											
Steam.....	...	...	...	1	...	1	...	...	...	...	...
Electric and Diesel-electric.....	12	1	11	21	10	8	3	...	...	2	...
Diesel.....	117	32	85	63	3	34	22	2	2	14	38
Gasoline and other.....	9	7	2	10	3	5	...	2	...	6	3
Power shovels, total.....	38	10	28	33	6	20	5	2	...	10	10
By kind of power used:											
Steam.....	...	...	...	1	...	1	...	...	...	...	...
Electric and Diesel-electric.....	5	1	4	11	5	5	1	...	...	2	...
Diesel.....	30	6	24	16	...	11	4	1	...	3	7
Gasoline and other.....	3	3	...	5	1	3	...	1	...	5	3
By dipper or bucket capacity (cubic yards):											
Less than 3.....	32	8	24	18	2	10	4	2	...	10	8
3-5 inclusive.....	3	1	2	10	...	9	1	...	...	...	2
6-12 inclusive.....	1	...	1	2	1	1	...	...	...	...	...
More than 12.....	2	1	1	3	3	...	...	...	...	...	...
Dragline excavators, total.....	31	10	21	14	5	7	2	...	...	3	1
By kind of power used:											
Steam.....	...	...	...	...	...	...	...	...	...	...	...
Electric and Diesel-electric.....	5	...	5	8	4	3	1	...	...	...	...
Diesel.....	23	8	15	5	1	3	1	...	...	2	1
Gasoline and other.....	3	2	1	1	...	1	...	...	...	1	...
By dipper or bucket capacity (cubic yards):											
Less than 3.....	11	5	6	4	2	2	...	...	...	3	1
3-5 inclusive.....	13	3	10	5	1	3	1	...	...	...	...
6-12 inclusive.....	7	2	5	4	1	2	1	...	...	...	...
More than 12.....	...	...	...	1	1	...	...	...	...	...	...
Carry-all scrapers, total.....	6	...	6	9	...	5	4	...	...	...	5
By kind of power used:											
Electric and Diesel-electric.....	...	...	...	...	...	...	...	...	...	...	...
Diesel.....	6	...	6	9	...	5	4	...	...	...	5
Gasoline and other.....	...	...	...	...	...	...	...	...	...	...	...
Bulldozers, total.....	57	18	39	36	5	16	12	1	2	9	25
By kind of power used:											
Electric and Diesel-electric.....	...	...	...	2	1	...	1	...	...	...	...
Diesel.....	55	16	39	31	2	15	11	1	2	9	25
Gasoline and other.....	2	2	...	3	2	1	...	...	...	...	...
Coal recovery augers, total ⁵.....	...	...	...	...	...	...	...	...	...	...	...
By kind of power used:											
Electric and Diesel-electric.....	...	...	...	...	...	...	...	...	...	...	...
Diesel.....	...	...	...	...	...	...	...	...	...	...	...
Gasoline and other.....	...	...	...	...	...	...	...	...	...	...	...
All other types of equipment, total ⁶	6	2	4	3	...	...	2	1	...	...	...
By kind of power used:											
Steam.....	...	...	...	...	...	...	...	...	...	...	...
Electric and Diesel-electric.....	2	...	2	...	...	...	...	...	...	...	...
Diesel.....	3	2	1	2	...	...	2	...	...	...	...
Gasoline and other.....	1	...	1	1	...	...	...	1	...	...	...

See footnotes at end of table.

Table 11.--NUMBER OF POWER LOADING AND EARTH-MOVING MACHINES AND NET COAL LOADED UNDERGROUND IN THE BITUMINOUS COAL AND LIGNITE MINING INDUSTRIES IN THE UNITED STATES: 1954 AND 1939, AND BY GEOGRAPHIC DIVISIONS AND STATES: 1954--Continued

Type of loading and earth-moving equipment	Bituminous coal industry and bituminous coal and lignite mining contract services industry, 1954				
	Middle Atlantic (Pennsylvania)	East North Central			
		Total	Ohio	Indiana	Illinois
Underground loading equipment, total: ⁷					
Number of machines.....	1,759	654	247	96	311
Net coal loaded.....1,000 short tons..	47,443	39,091	9,403	4,731	24,957
Continuous mining machines:					
Number of machines.....	153	38	12	4	22
Net coal loaded.....1,000 short tons..	7,911	3,417	1,176	295	1,946
Scraper loaders (including slushers):					
Number of machines.....	16	1	1	...	...
Net coal loaded.....1,000 short tons..	161	45	45	...	...
By rated horsepower:					
Less than 10.....	...	...	...	...	...
10-25 inclusive.....	13	...	...	...	...
26-100 inclusive.....	1	1	1	...	...
More than 100.....	2	...	...	...	...
Mobile loading machines:					
Number of machines, total.....	976	540	174	92	274
Net coal loaded.....1,000 short tons..	35,659	35,331	7,937	4,436	22,958
Loading direct into mine cars:					
Number of machines.....	385	133	50	21	62
Net coal loaded.....1,000 short tons..	14,838	5,934	2,690	618	2,626
Loading direct onto conveyors:					
Number of machines.....	64	17	17	...	...
Net coal loaded.....1,000 short tons..	1,362	499	499	...	...
Loading into shuttle cars:					
Number of machines.....	490	368	90	68	210
Net coal loaded.....1,000 short tons..	19,459	28,898	4,748	3,818	20,332
Loading in conjunction with continuous mining machines:					
Number of machines ⁸	37	22	17	3	2
Duckbills and self-loading conveyors:					
Number of machines.....	82	29	18	...	11
Net coal loaded.....1,000 short tons..	673	100	54	...	46
Hand-loaded face or room conveyors:					
Number of machines.....	532	46	42	...	4
Net coal loaded.....1,000 short tons..	3,039	198	191	...	7

See footnotes at end of table.

Table 11.--NUMBER OF POWER LOADING AND EARTH-MOVING MACHINES AND NET COAL
IN THE UNITED STATES: 1954 AND 1939, AND BY

Type of loading and earth-moving equipment		Bituminous coal industry and bituminous coal and lignite mining contract services industry, 1954--Continued							
		West North Central				South Atlantic			
		Total	Iowa	Missouri	Kansas	Total	Maryland	Virginia	West Virginia
	Underground loading equipment, total: ⁷								
1	Number of machines.....	6	6	...	...	2,879	10	288	2,581
2	Net coal loaded.....1,000 short tons..	82	82	...	...	102,683	81	8,641	93,961
	Continuous mining machines:								
3	Number of machines.....	...	...	...	...	89	...	5	84
4	Net coal loaded.....1,000 short tons..	...	...	...	...	2,878	...	311	2,567
	Scraper loaders (including slushers):								
5	Number of machines.....	...	...	...	...	6	...	1	5
6	Net coal loaded.....1,000 short tons..	...	...	...	...	11	...	...	11
	By rated horsepower:								
7	Less than 10.....	...	...	...	...	2	...	...	2
8	10-25 inclusive.....	...	...	...	...	2	...	1	1
9	26-100 inclusive.....	...	...	...	...	2	...	...	2
10	More than 100.....	...	...	...	...	...	...	...	...
	Mobile loading machines:								
11	Number of machines, total.....	5	5	...	...	1,765	2	170	1,593
12	Net coal loaded.....1,000 short tons..	70	70	...	...	91,245	28	7,428	83,789
	Loading direct into mine cars:								
13	Number of machines.....	5	5	...	...	465	2	55	408
14	Net coal loaded.....1,000 short tons..	70	70	...	...	16,213	28	979	15,206
	Loading direct onto conveyors:								
15	Number of machines.....	...	...	...	...	257	...	11	246
16	Net coal loaded.....1,000 short tons..	...	...	...	...	7,266	...	159	7,107
	Loading into shuttle cars:								
17	Number of machines.....	...	...	...	...	1,030	...	99	931
18	Net coal loaded.....1,000 short tons..	...	...	...	...	67,766	...	6,290	61,476
	Loading in conjunction with continuous mining machines:								
19	Number of machines ⁸.....	...	...	...	...	13	...	5	8
	Duckbills and self-loading conveyors:								
20	Number of machines.....	1	1	...	...	147	2	39	106
21	Net coal loaded.....1,000 short tons..	12	12	...	...	1,996	14	284	1,698
	Hand-loaded face or room conveyors:								
22	Number of machines.....	...	...	...	...	872	6	73	793
23	Net coal loaded.....1,000 short tons..	...	...	...	...	6,553	39	618	5,896

¹Separate figures are not available for loading equipment used in the bituminous coal and lignite mining contract services industry in 1939.²Excludes figures for the bituminous coal and lignite mining contract services industry.³Represents scraper loaders. Information was not obtained on carry-all scrapers for 1939.⁴Represents the number specified as bulldozers in an inquiry for "Other equipment." No separate line was provided in the 1939 report forms for bulldozers.⁵Represents surface augers only. No data were collected on the number of underground augers.⁶For 1954, represents 16 cranes and hoists, 32 loaders, 4 excavators and earth-movers, and 10 unidentified machines in the bituminous coal industry, 1 loader in the lignite industry, and 1 tractor-loader and 2 trenchers and 2 trenchers and ditchers in the bituminous coal and lignite contract services industry. For 1939, represents 2 cranes and hoists, 2 clam shells, 24 loaders, 19 tractor-scraper, and 12 unidentified machines reported for the bituminous coal industry and 3 tractor-drawn scrapers for the lignite industry.

BITUMINOUS COAL AND LIGNITE MINING

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LOADED UNDERGROUND IN THE BITUMINOUS COAL AND LIGNITE MINING INDUSTRIES
GEOGRAPHIC DIVISIONS AND STATES: 1954--Continued

Bituminous coal industry and bituminous coal and lignite mining contract services industry, 1954--Continued															
East South Central				West South Central			Mountain						Pacific (Washing- ton and Oregon)	Alaska	
Total	Kentucky	Tennessee	Alabama	Total	Arkansas	Oklahoma	Total	Montana	Wyoming	Colorado	New Mexico	Utah			
1,253 43,307	908 33,719	70 1,754	275 7,834	162 958	38 242	124 716	731 8,695	38 371	238 1,371	239 1,931	22 54	194 4,968	107 531	25 140	1 2
24 1,541	14 540	... ...	10 1,001	... ...	... ...	... ...	12 424	... ...	2 79	4 61	... ...	6 284	7 156	... ...	3 4
... ...	... ...	... ...	... ...	... ...	... ...	... ...	10 109	... ...	4 20	2 89	4 ...	... ...	11 83	14 2	5 6
... ...	... ...	... ...	... ...	... ...	... ...	... ...	6 4	... ...	... 4	2 ...	4 ...	... ...	7 3	14 ...	7 8
... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	1 ...	... ...	9 10
755 37,027	581 29,846	31 1,205	143 5,976	7 51	... ...	7 51	291 6,967	27 326	44 781	57 1,190	16 53	147 4,617	4 30	11 138	11 12
142 3,389	112 2,334	8 185	22 870	... ...	... ...	... ...	79 953	20 239	11 104	12 66	16 53	20 491	4 30	6 138	13 14
81 2,092	48 1,467	8 128	25 497	2 18	... ...	2 18	8 112	... ...	2 2	2 19	... ...	4 91	... ...	5 ...	15 16
522 31,546	417 26,045	15 892	90 4,609	5 33	... ...	5 33	196 5,902	7 87	29 675	43 1,105	... ...	117 4,035	... ...	... ...	17 18
10	4	...	6	...	...	...	8	...	2	...	...	6	...	...	19
53 917	31 535	14 350	8 32	... ...	... ...	... ...	318 963	8 35	162 428	110 442	1 ...	37 58	6 10	... ...	20 21
421 3,822	282 2,798	25 199	114 825	155 907	38 242	117 665	100 232	3 10	26 63	66 149	1 1	4 9	79 252	... ...	22 23

⁷All electric, except for 1 scraper loader in 1954, operated by compressed air, and 15 hand-loaded face conveyors in 1939, 11 of which were operated by compressed air and 4 by other power.

⁸Net coal loaded is included with the figure above for continuous mining machines.

⁹Includes 901 pit-car loaders, for which separate information was not obtained in 1954.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 12.—MATERIALS, SUPPLIES, FUELS, AND ELECTRIC ENERGY USED IN THE BITUMINOUS

(For explanation of line

Item	Unit of measure for quantity	Bituminous coal and lignite mining industries (United States and Alaska)		Bituminous coal industry			
		United States and Alaska		United States and Alaska		United States and Alaska	
		Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
1 Raw coal for mechanical cleaning, total.....	1,000 short tons	277,921	xxx	277,921	xxx	277,568	xxx
2 Mined and cleaned at same establishment.....	....do.....	221,804	xxx	221,804	xxx	221,472	xxx
3 Received from other establishments of same company, purchased, or received for cleaning on a custom basis.....	....do.....	56,117	204,074	56,117	204,074	56,096	203,953
4 Raw coal purchased within the industry for resale without mechanical cleaning.....	....do.....	16,690	62,065	16,690	62,065	16,690	62,065
5 Supplies used, total.....	.....	xxx	4261,483	xxx	257,865	xxx	257,233
6 Explosives.....	1,000 pounds...	167,335	26,787	167,075	26,748	166,656	26,632
7 Steel mill shapes and forms.....	Short tons.....	342,937	30,623	342,857	30,605	342,673	30,575
8 Round and hewn woods products and stumpage ⁶.....	.....	xxx	25,872	xxx	25,869	xxx	25,756
9 Rough lumber, including sawed mine timbers and ties, produced for use at same establishment.....	1,000 board feet	4,212	xxx	4,212	xxx	4,212	xxx
10 All other supplies.....	....do.....	xxx	175,210	xxx	174,643	xxx	174,270
11 Fuels used, total.....	Million kwh equivalent.	11,782	xxx	11,312	xxx	11,253	xxx
12 Bituminous coal and lignite produced for use at same establishment.....	1,000 short tons	764	xxx	757	xxx	754	xxx
13 Purchased fuel, total.....	Million kwh equivalent.	5,566	17,324	5,501	15,925	5,465	15,712
14 Coal.....	1,000 short tons	77	418	75	416	75	416
15 Distillate fuel oil.....	1,000 barrels...	2,057	10,344	1,901	9,469	1,886	9,305
16 Residual fuel oil.....	....do.....	78	385	70	341	70	334
17 Natural gas.....	Million cu. ft.	507	123	507	123	507	123
18 Other fuels.....	.....	xxx	6,054	xxx	5,576	xxx	5,534
19 Electric energy purchased.....	Million kwh.....	3,629	47,859	3,602	47,569	3,601	47,512
20 Electric energy generated and used.....	....do.....	133	xxx	133	xxx	132	xxx
Bituminous coal industry—Continued							
West North Central							
Total		Iowa		Missouri			
		Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
21 Raw coal for mechanical cleaning, total.....	4,790	xxx	...	xxx	3,540	xxx	...
22 Mined and cleaned at same establishment.....	3,609	xxx	...	xxx	(D)	xxx	...
23 Received from other establishments of same company, purchased, or received for cleaning on a custom basis.....	1,181	3,242	...	...	(D)	...	3,391
24 Raw coal purchased within the industry for resale without mechanical cleaning.....	2	13	(D)	438	(D)	...	...
25 Supplies used, total.....	xxx	2,549	xxx	xxx	xxx	xxx	...
26 Explosives.....	5,719	948	1,075	180	2,615	494	...
27 Steel mill shapes and forms.....	386	137	40	8	229	63	...
28 Round and hewn woods products and stumpage ⁶	xxx	10	xxx	8	xxx	2	...
29 Rough lumber, including sawed mine timbers and ties, produced for use at same establishment.....	1	xxx	...	xxx	1	xxx	...
30 All other supplies.....	xxx	1,454	xxx	(D)	xxx	(D)	...
31 Fuels used, total.....	165	xxx	64	xxx	47	xxx	...
32 Bituminous coal and lignite produced for use at same establishment.....	3	xxx	1	xxx	...	xxx	...
33 Purchased fuel, total.....	142	432	56	195	47	128	...
34 Coal.....	...	...	...	...	...	...	...
35 Distillate fuel oil.....	60	275	21	112	21	84	...
36 Residual fuel oil.....	(³)	2	(³)	2	...	...	...
37 Natural gas.....	...	...	...	...	...	...	...
38 Other fuels.....	xxx	155	xxx	81	xxx	44	...
39 Electric energy purchased.....	46	846	4	86	29	536	...
40 Electric energy generated and used.....	...	xxx	...	xxx	...	xxx	...

See footnotes at end of table.

BITUMINOUS COAL AND LIGNITE MINING

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COAL AND LIGNITE MINING INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954

captions, see INTRODUCTION)

Bituminous coal industry—Continued									
Middle Atlantic (Pennsylvania)		East North Central							
		Total		Ohio		Indiana		Illinois	
Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
48,982	xxx	75,303	xxx	17,515	xxx	15,482	xxx	42,306	xxx
34,328	xxx	59,919	xxx	14,087	xxx	11,198	xxx	34,634	xxx
14,654	55,096	15,384	48,563	3,428	10,314	4,284	18,418	7,672	19,831
2,501	8,450	517	1,555	492	1,499	(³)	2	25	54
xxx	49,261	xxx	48,925	xxx	17,443	xxx	8,728	xxx	22,754
21,769	3,719	51,897	6,562	22,853	2,920	16,634	1,842	12,410	1,800
100,254	6,475	34,186	5,146	15,399	2,243	3,627	758	15,160	2,145
xxx	6,771	xxx	1,975	xxx	761	xxx	254	xxx	960
3,466	xxx	520	xxx	519	xxx	1	xxx	...	xxx
xxx	32,296	xxx	35,242	xxx	11,519	xxx	5,874	xxx	17,849
3,558	xxx	2,551	xxx	1,113	xxx	402	xxx	1,036	xxx
204	xxx	143	xxx	2	xxx	35	xxx	106	xxx
1,992	4,624	1,453	4,551	1,098	3,339	133	465	222	747
70	366	2	33	2	33	...	...	...	...
585	2,752	588	2,883	450	2,139	45	249	93	495
27	112	25	138	20	112	5	26	...	...
228	50	61	20	61	20	...	...	...	...
xxx	1,344	xxx	1,477	xxx	1,035	xxx	190	xxx	252
834	10,887	726	9,877	197	2,314	132	1,841	397	5,722
67	xxx	16	xxx	4	xxx	8	xxx	4	xxx

Bituminous coal industry—Continued												
West North Central—Con.		South Atlantic										
Kansas		Total		Maryland		Virginia		West Virginia		Georgia		
Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	
1,250	xxx	95,322	xxx	...	xxx	8,575	xxx	86,747	xxx	...	xxx	21
(D)	xxx	77,727	xxx	...	xxx	5,836	xxx	71,891	xxx	...	xxx	22
(D)	1,975	17,595	66,687	...	...	2,739	9,807	14,856	56,880	...	...	23
(D)		11,350	43,525	27	108	3,636	12,429	7,687	30,988	...	...	24
xxx		xxx	97,699	xxx	223	xxx	12,008	xxx	85,458	xxx	10	25
2,029	274	44,720	7,879	248	37	8,003	1,462	36,462	6,380	7	(³)	26
117	66	162,800	12,876	30	5	36,791	1,050	125,979	11,821	...	...	27
xxx	...	xxx	11,942	xxx	25	xxx	1,481	xxx	10,435	xxx	1	28
...	xxx	151	xxx	...	xxx	6	xxx	145	xxx	...	xxx	29
xxx	(D)	xxx	65,002	xxx	156	xxx	8,015	xxx	56,822	xxx	9	30
54	xxx	2,558	xxx	31	xxx	313	xxx	2,214	xxx	...	xxx	31
2	xxx	199	xxx	...	xxx	24	xxx	175	xxx	...	xxx	32
39	109	1,031	3,316	31	80	129	429	871	2,807	...	...	33
...	...	2	14	1	4	(³)	1	1	9	...	...	34
18	79	341	1,805	9	43	38	182	294	1,580	...	...	35
...	...	12	54	...	...	2	7	10	47	...	...	36
...	...	196	41	...	...	...	...	196	41	...	...	37
xxx	30	xxx	1,402	xxx	33	xxx	239	xxx	1,130	xxx	...	38
13	224	1,228	16,010	1	23	109	1,714	1,118	14,273	...	...	39
...	xxx	21	xxx	...	xxx	6	xxx	15	xxx	...	xxx	40

Table 12.—MATERIALS, SUPPLIES, FUELS, AND ELECTRIC ENERGY USED IN THE BITUMINOUS

(For explanation of line

Item	Unit of measure for quantity	Bituminous coal industry—Continued			
		East South Central			
		Total		Kentucky	
		Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
1 Raw coal for mechanical cleaning, total.....	1,000 short tons	48,804	xxx	34,777	xxx
2 Mined and cleaned at same establishment.....	....do.....	42,317	xxx	29,343	xxx
3 Received from other establishments of same company, purchased, or received for cleaning on a custom basis.....	....do.....	6,487	27,299	5,434	22,711
4 Raw coal purchased within the industry for resale without mechanical cleaning.....	....do.....	2,309	8,471	2,012	7,484
5 Supplies used, total.....	.....	xxx	47,223	xxx	35,172
6 Explosives.....	1,000 pounds....	34,958	6,004	23,873	4,023
7 Steel mill shapes and forms.....	Short tons.....	32,697	4,231	21,435	2,951
8 Round and hewn woods products and stumpage ⁶.....	.....	xxx	3,797	xxx	2,958
9 Rough lumber, including sawed mine timbers and ties, produced for use at same establishment.....	1,000 board feet	11	xxx	11	xxx
10 All other supplies.....	.....	xxx	33,191	xxx	25,240
11 Fuels used, total.....	Million kwh equivalent.	1,094	xxx	644	xxx
12 Bituminous coal and lignite produced for use at same establishment.....	1,000 short tons	54	xxx	31	xxx
13 Purchased fuel, total.....	Million kwh equivalent.	679	2,249	406	1,352
14 Coal.....	1,000 short tons	1	3	1	2
15 Distillate fuel oil.....	1,000 barrels...	248	1,285	143	756
16 Residual fuel oil.....	....do.....	6	28	3	13
17 Natural gas.....	Million cu. ft..	19	11	19	11
18 Other fuels.....	.....	xxx	922	xxx	570
19 Electric energy purchased.....	Million kwh.....	609	7,887	381	5,537
20 Electric energy generated and used.....	....do.....	19	xxx	18	xxx
Bituminous coal industry—Continued					
Mountain					
Total		Montana		Wyoming	
Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
21 Raw coal for mechanical cleaning, total.....	2,589 xxx	14	xxx	12	xxx
22 Mined and cleaned at same establishment.....	1,853 xxx	14	xxx	12	xxx
23 Received from other establishments of same company, purchased, or received for cleaning on a custom basis.....	736	...	...	...	...
24 Raw coal purchased within the industry for resale without mechanical cleaning.....	(D) 11,069	...	...	...	...
25 Supplies used, total.....	xxx	xxx	197	xxx	1,789
26 Explosives.....	3,369 757	83	16	739	137
27 Steel mill shapes and forms.....	11,779 1,561	26	6	4,427	682
28 Round and hewn woods products and stumpage ⁶	xxx 770	xxx	8	xxx	157
29 Rough lumber, including sawed mine timbers and ties, produced for use at same establishment.....	60 xxx	...	xxx	7	xxx
30 All other supplies.....	xxx (D)	xxx	167	xxx	813
31 Fuels used, total.....	1,179 xxx	33	xxx	622	xxx
32 Bituminous coal and lignite produced for use at same establishment.....	142 xxx	4	xxx	77	xxx
33 Purchased fuel, total.....	89 293	3	13	31	92
34 Coal.....	...	...	...	...	...
35 Distillate fuel oil.....	32 150	(3)	2	15	71
36 Residual fuel oil.....	...	...	...	...	...
37 Natural gas.....	...	...	...	...	...
38 Other fuels.....	xxx 143	xxx	11	xxx	21
39 Electric energy purchased.....	119 1,559	6	66	16	212
40 Electric energy generated and used.....	9 xxx	...	xxx	5	xxx

See footnotes at end of table.

BITUMINOUS COAL AND LIGNITE MINING

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 COAL AND LIGNITE MINING INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued
 captions, see INTRODUCTION)

Bituminous coal industry—Continued											
East South Central—Continued						West South Central					
Tennessee		Alabama		Total		Arkansas		Oklahoma			
Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)		
543	xxx	13,484	xxx	831	xxx	...	xxx	831	xxx	1	
474	xxx	12,500	xxx	791	xxx	...	xxx	(D)	xxx	2	
69	186	984	4,402	51	256	...	...	(D)	(²)	3	
236	702	61	285					(D)	...	4	
xxx	3,452	xxx	8,599					644	...	5	
3,662	684	7,423	1,297	3,796	669	1,282	219	2,514	450	6	
779	76	10,483	1,204	505	135	38	7	467	128	7	
xxx	247	xxx	592	xxx	306	xxx	101	xxx	205	8	
...	xxx	...	xxx	...	xxx	...	xxx	...	xxx	9	
xxx	2,445	xxx	5,506	xxx	1,408	xxx	(D)	xxx	(D)	10	
138	xxx	312	xxx	75	xxx	20	xxx	55	xxx	11	
1	xxx	22	xxx	1	xxx	1	xxx	...	xxx	12	
130	417	143	480	67	205	12	43	55	162	13	
(²)	1	...	...	...	...	...	...	...	...	14	
52	253	53	276	30	144	4	22	26	122	15	
1	6	2	9	...	...	...	...	...	...	16	
...	...	...	...	3	1	...	...	3	1	17	
xxx	157	xxx	195	xxx	60	xxx	21	xxx	39	18	
32	319	196	2,031	24	319	8	96	16	223	19	
1	xxx	...	xxx	...	xxx	...	xxx	...	xxx	20	
Bituminous coal industry—Continued											
Mountain—Continued								Pacific (Washington and Oregon)		Alaska	
Colorado		New Mexico		Arizona		Utah		Quantity	Cost	Quantity	Cost
Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
22	xxx	30	xxx	...	xxx	2,511	xxx	947	xxx	353	xxx
22	xxx	30	xxx	...	xxx	1,775	xxx	928	xxx	332	xxx
...	...	...	...	...	...	(D)	(²)	(D)	(²)	21	121
...	...	(D)	48	...	...	...	...	...	...	...	...
xxx	1,956	xxx									
893	158	47	8	6	(³)	1,601	438	428	94	419	116
2,296	308	3	1	...	...	5,027	564	66	14	184	30
xxx	249	xxx	3	xxx	1	xxx	352	xxx	185	xxx	113
53	xxx	...	xxx	...	xxx	...	xxx	3	xxx	...	...
xxx	1,241	xxx	(D)	xxx	8	xxx	(D)	xxx	(D)	xxx	373
361	xxx	9	xxx	...	...	154	xxx	73	xxx	59	xxx
44	xxx	1	xxx	...	xxx	16	xxx	8	xxx	3	xxx
23	78	1	6	...	...	31	104	12	42	36	213
...
9	45	...	...	...	...	8	32	2	11	15	164
...	...	...	...	...	...	...	...	...	...	...	7
...
xxx	33	xxx	6	xxx	...	xxx	72	xxx	31	xxx	42
21	430	1	37	...	...	75	814	15	127	1	57
3	xxx	...	xxx	...	xxx	1	xxx	...	xxx	1	xxx

MINERAL INDUSTRIES--INDUSTRY STATISTICS

Table 12.—MATERIALS, SUPPLIES, FUELS, AND ELECTRIC ENERGY USED IN THE BITUMINOUS COAL AND LIGNITE MINING INDUSTRIES,
BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued
(For explanation of line captions, see INTRODUCTION)

Item	Unit of measure for quantity	Lignite industry					
		United States		East and South (North Dakota, South Dakota, and Texas)		West (Montana and California)	
		Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
Raw coal for mechanical cleaning, total.....	1,000 short tons	...	xxx	...	xxx	...	xxx
Mined and cleaned at same establishment.....	...do.....	...	xxx	...	xxx	...	xxx
Received from other establishments of same company, purchased, or received for cleaning on a custom basis.....	...do.....	...	...	...	...	...	...
Raw coal purchased within the industry for resale without mechanical cleaning.....	...do.....	...	...	...	...	...	...
Supplies used, total.....	...	xxx	627	xxx	611	xxx	16
Explosives.....	1,000 pounds....	260	39	225	34	35	5
Steel mill shapes and forms.....	Short tons.....	...	18	80	18	...	...
Round and hewn woods products and stumpage ⁶.....	...	xxx	3	xxx	3	xxx	...
Rough lumber, including sawed mine timbers and ties, produced for use at same establishment.....	1,000 board feet	...	...	...	...	...	...
All other supplies.....	...	xxx	567	xxx	556	xxx	11
Fuels used, total.....	Million kwh equivalent.	119	xxx	118	xxx	1	xxx
Bituminous coal and lignite produced for use at same establishment.....	1,000 short tons	7	xxx	7	xxx	...	xxx
Purchased fuel, total.....	Million kwh equivalent.	65	239	64	235	1	4
Coal.....	1,000 short tons	...	...	...	...	...	...
Distillate fuel oil.....	1,000 barrels...	24	141	24	139	(³)	2
Residual fuel oil.....	...do.....	...	1	...	1	...	...
Natural gas.....	Million cu. ft..	...	...	...	...	...	...
Other fuels.....	...	xxx	97	xxx	95	xxx	2
Electric energy purchased.....	Million kwh....	25	254	25	252	...	2
Electric energy generated and used.....	...do.....	...	xxx	...	xxx	...	xxx
Bituminous coal and lignite mining contract services industry ¹							
		United States		East and South		West	
		Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
Raw coal for mechanical cleaning, total.....		xxx	xxx	xxx	xxx	xxx	xxx
Mined and cleaned at same establishment.....		xxx	xxx	xxx	xxx	xxx	xxx
Received from other establishments of same company, purchased, or received for cleaning on a custom basis.....		xxx	xxx	xxx	xxx	xxx	xxx
Raw coal purchased within the industry for resale without mechanical cleaning.....		xxx	xxx	xxx	xxx	xxx	xxx
Supplies used, total.....		xxx	2,991	xxx	⁵ 2,693	xxx	298
Explosives.....		(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Steel mill shapes and forms.....		(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Round and hewn woods products and stumpage ⁶		(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Rough lumber, including sawed mine timbers and ties, produced for use at same establishment.....		...	...	...	...	...	...
All other supplies.....		(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Fuels used, total.....		351	1,160	⁵ 317	⁵ 1,099	34	61
Bituminous coal and lignite produced for use at same establishment.....		xxx	xxx	xxx	xxx	xxx	xxx
Purchased fuel, total.....		351	1,160	⁵ 317	⁵ 1,099	34	61
Coal.....		2	2	...	...	2	2
Distillate fuel oil.....		132	734	⁵ 125	⁷ 702	7	32
Residual fuel oil.....		8	43	⁵ 8	43	...	...
Natural gas.....		...	...	...	...	...	...
Other fuels.....		xxx	381	xxx	⁵ 354	xxx	27
Electric energy purchased.....		2	36	(³)	⁵ 12	2	24
Electric energy generated and used.....		...	xxx	...	xxx	...	xxx

xxx Not applicable. D Withheld to avoid disclosing figures for individual companies. NA Not available. ¹See table 3A, footnote 1.
²The cost of coal received for cleaning is included with the cost of supplies. ³Less than one-half of the specified unit. ⁴The total includes, but the detail excludes, the cost of supplies used by bituminous coal and lignite mining contractors. Information on this detail was not obtained.
⁵For statistics by States, see table 3A. ⁶In addition to establishments reporting purchases of hewn or round woods products for which cost is shown, 136 establishments indicated that they produced hewn or round woods products for their own use. The quantity and value of these products were not reported. ⁷For Pennsylvania, \$371 thousand; for Ohio, \$45 thousand; for West Virginia, \$210 thousand; for Kentucky, \$32 thousand; and for Alabama, \$25 thousand.

BITUMINOUS COAL AND LIGNITE MINING

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 Table 13.—WATER USE IN THE BITUMINOUS COAL AND LIGNITE MINING INDUSTRIES IN THE UNITED STATES, BY GEOGRAPHIC DIVISIONS AND STATES,
 BY TYPE OF OPERATION AND IN ALASKA: 1954

(For explanation of column captions, see INTRODUCTION)

Industry, geographic division, State, and type of operation	Average number of production and devel- opment workers	Value added in mining (\$1,000)	Water intake (except mine water)			Water discharged (except mine water) (Million gallons)	Mine water (million gallons)	
			Million gallons	Million gallons per production worker ¹	Gallons per dollar value added		Used	Drained and dis- charged
Bituminous coal and lignite mining industries (United States and Alaska), total.....	199,970	1,424,161	23,051	0.12	16	14,834	7,242	147,479
BITUMINOUS COAL INDUSTRY								
United States and Alaska, total.....	198,134	1,402,551	22,996	0.12	16	14,834	7,214	145,996
United States, total.....	197,819	1,396,774	22,146	0.11	16	13,985	7,179	145,872
GEOGRAPHIC DIVISION AND STATE								
Middle Atlantic (Pennsylvania).....	45,633	294,970	3,684	0.08	12	2,503	624	60,420
East North Central.....	27,659	258,913	5,165	0.19	20	3,801	2,682	6,036
Ohio.....	10,015	90,164	780	0.08	9	569	112	832
Indiana.....	4,153	39,588	1,661	0.40	42	1,385	508	866
Illinois.....	13,491	129,161	2,724	0.20	21	1,847	2,062	4,338
West North Central.....	1,766	15,471	464	0.26	30	399	353	636
Iowa.....	562	3,556	...	...	...	...	...	21
Missouri.....	781	7,644	282	0.36	37	231	242	374
Kansas.....	423	4,271	182	0.43	43	168	111	241
South Atlantic.....	72,609	494,259	8,055	0.11	16	3,882	1,704	47,182
Maryland.....	352	1,631	...	...	...	...	...	...
Virginia.....	10,730	61,508	1,446	0.13	24	101	402	651
West Virginia.....	61,518	431,087	6,609	0.11	15	3,781	1,302	46,531
Georgia.....	9	33	...	...	...	...	...	...
East South Central.....	41,188	268,259	4,152	0.10	16	3,012	1,435	29,066
Kentucky.....	29,416	193,094	2,629	0.09	14	1,974	1,083	18,719
Tennessee.....	3,960	20,837	28	0.01	1	17	2	58
Alabama.....	7,812	54,328	1,495	0.19	29	1,021	350	10,289
West South Central.....	1,542	11,637	46	0.03	4	38	259	320
Arkansas.....	430	2,783	...	...	...	...	9	316
Oklahoma.....	1,112	8,854	46	0.04	5	38	250	4
Mountain.....	6,762	49,936	414	0.06	8	193	73	2,132
Montana.....	290	2,906	6	0.02	2	...	...	...
Wyoming.....	1,138	8,857	161	0.14	18	125	...	264
Colorado.....	2,431	13,480	64	0.03	5	7	8	780
New Mexico.....	147	614	2	0.01	3	2	2	2
Arizona.....	21	59	...	...	...	...	...	...
Utah.....	2,735	24,020	181	0.07	8	59	63	1,086
Pacific (Washington and Oregon).....	660	3,329	166	0.25	50	157	49	80
Alaska.....	315	5,777	850	2.70	147	849	35	124
LIGNITE INDUSTRY								
United States.....	505	9,093	16	0.03	2	...	...	13
BITUMINOUS COAL AND LIGNITE MINING CONTRACT SERVICES INDUSTRY								
United States.....	1,331	12,517	39	0.03	3	...	28	1,470

See footnotes at end of table.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 13.—WATER USE IN THE BITUMINOUS COAL AND LIGNITE MINING INDUSTRIES IN THE UNITED STATES, BY GEOGRAPHIC DIVISIONS AND STATES, BY TYPE OF OPERATION AND IN ALASKA: 1954—Continued

(For explanation of column captions, see INTRODUCTION)

Industry, geographic division, State, and type of operation	Gross water use, including recirculation (Million gallons)	Percent of total water intake (except mine water) by principal source						Not specified
		Public water systems	Company surface water systems	Company ground water systems	Combined public water and company surface water systems	Combined public water and company ground water systems	Combined company surface and ground water systems	
Bituminous coal and lignite mining industries (United States and Alaska), total.....	117,166	4	70	16	3	(²)	5	2
BITUMINOUS COAL INDUSTRY								
United States and Alaska, total.....	117,083	4	70	16	3	(²)	5	2
United States, total.....	116,188	4	69	16	3	(²)	5	2
GEOGRAPHIC DIVISION AND STATE								
Middle Atlantic (Pennsylvania).....	19,343	19	55	3	17	1	3	2
East North Central.....	26,029	3	59	31	(²)	...	6	1
Ohio.....	6,128	...	77	16	...	...	6	2
Indiana.....	3,144	...	41	56	(²)	...	2	1
Illinois.....	16,757	5	64	21	1	...	9	...
West North Central.....	2,278	...	52	22	...	...	2	24
Iowa.....	...	...	...	...	...	...	...	...
Missouri.....	1,039	...	39	22	...	...	4	35
Kansas.....	1,239	...	72	22	...	...	...	6
South Atlantic.....	43,202	1	75	16	1	...	6	1
Maryland.....	...	...	...	...	...	...	...	...
Virginia.....	2,691	1	95	2	...	...	1	1
West Virginia.....	40,511	1	71	19	1	...	7	1
Georgia.....	...	...	...	...	...	...	...	...
East South Central.....	21,760	(²)	90	6	(²)	1	3	...
Kentucky.....	11,784	1	88	5	(²)	1	4	1
Tennessee.....	91	...	40	39	...	...	...	21
Alabama.....	9,885	(²)	93	6	...	...	(²)	1
West South Central.....	640	...	100	...	...	...	...	...
Arkansas.....	9	...	...	...	...	...	...	...
Oklahoma.....	631	...	100	...	...	...	...	...
Mountain.....	2,555	15	47	38	...	...	...	...
Montana.....	6	100	...	...	...	...	...	...
Wyoming.....	161	14	...	85	...	...	...	1
Colorado.....	81	50	50	...	...	...	...	...
New Mexico.....	4	...	...	100	...	...	...	...
Arizona.....	...	...	...	...	...	...	...	...
Utah.....	2,303	...	90	9	...	...	...	1
Pacific (Washington and Oregon).....	381	4	1	40	...	...	...	55
Alaska.....	895	...	100	...	...	...	...	...
LIGNITE INDUSTRY								
United States.....	16	...	...	100	...	...	...	...
BITUMINOUS COAL AND LIGNITE MINING CONTRACT SERVICES INDUSTRY								
United States.....	67	...	...	36	...	...	...	64

See footnotes at end of table.

Table 13.—WATER USE IN THE BITUMINOUS COAL AND LIGNITE MINING INDUSTRIES IN THE UNITED STATES, BY GEOGRAPHIC DIVISION AND STATE, BY TYPE OF OPERATION AND IN ALASKA: 1954—Continued

(For explanation of column captions, see INTRODUCTION)

Industry, geographic division, State, and type of operation	Average number of production and development workers	Value added in mining (\$1,000)	Water intake (except mine water)			Water discharged (except mine water) (Million gallons)	Mine water (million gallons)	
			Million gallons	Million gallons per employee ¹	Gallons per dollar value added		Used	Drained and discharged
Bituminous coal and lignite mining industries (United States), total.....	199,655	1,415,084	22,201	0.11	16	13,985	7,207	147,355
Type of Operation								
BITUMINOUS COAL AND LIGNITE INDUSTRIES								
Producing establishments, total.....	198,176	1,402,844	22,158	0.11	16	13,985	7,179	145,014
Strip-pit operations:								
Mines only.....	11,361	128,292	295	0.03	2	347	86	683
Mines with mechanical cleaning plant.....	5,989	92,635	2,631	0.44	28	2,188	3,209	4,966
Combination strip-pit and underground operations:								
Mines only.....	528	2,788	...	...	...	...	...	...
Mines with mechanical cleaning plant.....	1,732	12,891	549	0.32	43	515	64	505
Underground operations:								
Mines only.....	78,397	450,576	1,779	0.02	4	1,108	203	63,448
Mines with mechanical cleaning plant.....	92,021	640,855	10,661	0.12	17	7,989	2,782	69,562
Auger operations (mines only).....	358	3,925	...	...	...	...	...	...
Combination strip-pit and auger operations:								
Mines only.....	1,589	18,043	4	0.00	(²)	4	...	40
Mines with mechanical cleaning plant.....	378	8,357	135	0.36	16	100	120	110
Combination underground and auger operations:								
Mines only.....	395	1,821	165	0.42	91	148	...	4,820
Mines with mechanical cleaning plant.....	1,669	11,921	1,802	1.08	151	758	88	102
Combination strip-pit, underground, and auger operations (mines only and mines with mechanical cleaning plant).....	1,614	11,237	99	0.06	9	91	5	354
Central cleaning plants.....	1,659	14,759	4,038	2.43	274	737	622	424
Tipples without mechanical cleaning facilities...	486	4,744	...	...	...	...	...	...
Nonproducing operations.....	148	(³)	4	0.03	(³)	...	...	871
BITUMINOUS COAL AND LIGNITE MINING CONTRACT SERVICES INDUSTRY								
United States ⁴	1,331	12,517	39	0.03	3	...	28	1,470
Strip-pit mining and removing overburden.....	874	8,608	39	0.04	5	...	28	1,470

See footnotes at end of table.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 13.—WATER USE IN THE BITUMINOUS COAL AND LIGNITE MINING INDUSTRIES IN THE UNITED STATES, BY GEOGRAPHIC DIVISION AND STATE, BY TYPE OF OPERATION AND IN ALASKA: 1954—Continued

(For explanation of column captions, see INTRODUCTION)

Industry, geographic division, State, and type of operation	Gross water use, including recirculation (Million gallons)	Percent of total water intake (except mine water) by principal source						
		Public water systems	Company surface water systems	Company ground water systems	Combined public water and company surface water systems	Combined public water and company ground water systems	Combined company surface and ground water systems	Not specified
Bituminous coal and lignite mining industries (United States), total.....	116,249	4	69	16	3	1	5	2
Type of Operation								
BITUMINOUS COAL AND LIGNITE INDUSTRIES								
Producing establishments, total.....	116,178	4	69	16	3	1	5	2
Strip-pit operations:								
Mines only.....	381	(²)	82	18	...	...	...	...
Mines with mechanical cleaning plant.....	18,051	(²)	64	22	(²)	...	9	5
Combination strip-pit and underground operations:								
Mines only.....	...	...	...	...	...	...	...	...
Mines with mechanical cleaning plant.....	1,444	1	95	4	...	...	...	...
Underground operations:								
Mines only.....	1,982	22	38	32	7	...	...	2
Mines with mechanical cleaning plant.....	76,102	4	66	16	4	(²)	7	3
Auger operations (mines only).....	...	...	...	...	...	...	...	...
Combination strip-pit and auger operations:								
Mines only.....	4	25	50	25	...	...	...	...
Mines with mechanical cleaning plant.....	365	...	93	7	...	...	...	...
Combination underground and auger operations:								
Mines only.....	165	...	...	100	...	...	...	...
Mines with mechanical cleaning plant.....	3,595	...	91	8	...	...	1	...
Combination strip-pit, underground, and auger operations (mines only and mines with mechanical cleaning plant).....	104	...	66	34	...	...	...	...
Central cleaning plants.....	13,935	3	83	9	3	(²)	(²)	1
Tipples without mechanical cleaning facilities...	...	...	...	...	...	...	...	...
Nonproducing operations.....	4	50	...	50	...	...	...	...
BITUMINOUS COAL AND LIGNITE MINING CONTRACT SERVICES INDUSTRY								
United States ⁴	67	...	...	36	...	...	...	64
Strip-pit mining and removing overburden.....	67	...	...	36	...	...	...	64

¹For computation of water intake per production worker, including mine water used, see tables 3 and 4.²Less than 0.5.³Not shown, since the reported expenditures for supplies, fuel, electric energy, contract work, and machinery at nonproducing operations exceeded the capital expenditures by \$277 thousand.⁴No water use was reported by contract establishments other than those classified as "Strip-pit mining and removing overburden."

**DISTRIBUTION OF BITUMINOUS
COAL AND LIGNITE**

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Distribution of Bituminous Coal and Lignite

This report shows 1954 Census of Mineral Industries statistics on the distribution of bituminous coal and lignite produced in the United States and Alaska in 1954. The tonnage figures shown in tables 1 and 3 represent all coal produced, including that produced by establishments classified in the Bituminous Coal and Lignite industries and also coal produced at operations in other mineral industries and at State-owned or State-operated mines. The general statistics presented in table 2 are for establishments classified in Industries 1211, Bituminous Coal, and 1212, Lignite, more detailed statistics for which are presented in report MI-12A, Bituminous Coal and Lignite Mining. Only tonnage figures are available for coal produced in other mineral industries and at State-owned or State-operated mines. (See report MI-12A, table 5A.)

The report form used for canvassing the bituminous coal and lignite industries carried an inquiry requesting information on the tonnages of coal sold in the open market and not sold in the open market. Companies producing 10,000 tons or more of marketable coal in 1953 or 1954 were requested to file a supplemental report making a distribution of the tonnage of coal shipped, by State of destination, method of transportation, and class of consumer. A separate report was requested for each "coal producing district" in which the company operated mines or mechanical-cleaning plants. These "coal producing districts" are the districts generally recognized by the bituminous coal and lignite mining industries and are defined in detail on pages 14 and 15 of this report.

The companies covered in the sample represented about 45 percent of all establishments in the bituminous coal and lignite industries and accounted for approximately 98 percent of all marketable coal shipped or used at the producing establishment during 1954. The statistics in this report are based primarily on distribution data reported by the producer of the coal. They include, however, some tonnages of coal which companies in the sample purchased for resale, with or without mechanical cleaning, from smaller companies not in the sample. Data for these smaller companies are included in the general statistics presented in table 2.

Because of the detailed breakdown of the distribution statistics, many figures cannot be shown separately without approximately disclosing the data of individual companies. In such cases combinations have been made within each producing district of various States, methods of marketing, consumer uses, and other items. These combinations are indicated by brackets or explained in detail in the footnotes to the tables.

For each district, or group of districts, for which statistics are shown, the total production represents the sum of detail presented for the district. However, the sum of the figures for each district shown for a particular method of shipment, State of destination, or class of consumer does not always equal the total for all districts because of the combinations described above.

Under "Coal not sold in the open market" shippers were instructed to report tonnages of coal delivered to and consumed by affiliated concerns where (1) the relationship between the producer and buyer is that of a wholly owned or controlled parent and subsidiary company; (2) there is a common ownership or control of both the producer and buyer by a third party; and (3) the relation between the producer and buyer for any similar reason is such that the sale is noncompetitive. Under "Coal sold in the open market" respondents were asked to report coal disposed of through such marketing channels as affiliated selling agencies, storage docks, or retail yards, where the ultimate consumers are not affiliates of the producer.

A distribution survey of coal sales was conducted in conjunction with the 1929 minerals census. This survey covered enterprises at which production was valued at \$20,000 or more for the year. Since the average unit value of bituminous coal and lignite was \$1.80 per ton in that year, the basis of inclusion in the sample was approximately the same as the 10,000 ton limit used in 1954. The statistics presented in the 1929 survey pertain only to the marketing channels through which coal was delivered or sold by mine operators, and in general are not comparable with statistics shown in this report. Figures were given, however, for "controlled" or "captive" tonnage--deliveries to consumers who own or control the mine through direct ownership, and sales to affiliated consumers--which are comparable to the figures shown in this report for "Coal not sold in the open market." In 1929, this tonnage amounted to 111 million tons, comprising 21.3 percent of the total sales of companies covered in the sample. In 1954, companies included in the sample reported 77 million tons of coal not sold in the open market, or 19.9 percent of the total coal sold or used. In both surveys, high proportions of captive tonnage were indicated for Pennsylvania and Alabama, and in 1954, for Utah where large coking and other industrial companies mine their own coal.

Employees of the Bureau of Mines (U. S. Department of the Interior), acting as sworn Census agents, collected and compiled a major portion of the statistics included in this report.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 1.—SHIPMENTS OF ALL BITUMINOUS COAL AND LIGNITE AND SHIPMENTS BY COMPANIES REPORTING DISTRIBUTION OF COAL SHIPMENTS, BY COAL PRODUCING DISTRICT, UNITED STATES AND ALASKA: 1954

Coal producing district ¹	Net marketable coal shipped plus coal produced and used at the same establishment for power or heat ² (1,000 short tons)			Raw coal sold or transferred to other establishments in the bituminous coal and lignite industries (1,000 short tons)		Production included in distribution survey			
	Total	Coal sold in the open market	Coal not sold in the open market	For mechanical cleaning	For resale without mechanical cleaning	Total (1,000 short tons)	Percent of total coal shipped or used	Coal sold in the open market (1,000 short tons)	Coal not sold in the open market (1,000 short tons)
United States and Alaska, total....	392,993	316,310	76,683	55,513	16,690	383,883	97.7	307,363	76,520
1 Eastern Pennsylvania.....	29,987	26,676	3,311	3,459	1,439	28,308	94.4	25,052	3,256
2 Western Pennsylvania.....	42,641	15,260	27,381	11,460	1,089	42,344	99.3	14,760	27,584
3,6 Northern West Virginia and Panhandle..	37,205	32,573	4,632	1,302	2,390	36,199	97.3	31,740	4,459
4 Ohio.....	32,589	28,819	3,770	3,334	492	31,757	97.4	28,119	3,638
7 Southern No. 1.....	38,604	30,024	8,580	8,161	5,002	38,385	99.4	29,881	8,504
8 Southern No. 2.....	92,624	84,150	8,474	15,168	6,030	92,536	99.9	81,301	11,235
9 West Kentucky.....	22,463	³ 22,429	⁴ 34	647	...	22,264	99.1	³ 22,230	⁴ 34
10 Illinois.....	42,007	40,123	1,884	7,666	25	41,752	99.4	39,871	1,881
11 Indiana.....	16,090	³ 16,042	⁴ 48	1,354	...	13,215	(⁵)	³ 13,167	⁴ 48
12 Iowa.....	1,199	1,195	4	...	1	1,099	91.7	1,096	3
13 Southeastern.....	13,314	5,990	7,324	970	210	12,529	94.1	5,207	7,322
16 Northern Colorado.....	3,033	2,093	940	...	...	2,846	93.8	1,906	940
17 Southern Colorado.....									
20 Utah.....	5,013	2,851	2,162	(D)	...	4,934	98.4	2,772	2,162
14 Arkansas-Oklahoma.....	12,099	8,964	3,135	1,221	12	11,644	96.2	8,509	3,135
15 Southwestern.....									
18 New Mexico.....									
21 North Dakota-South Dakota.....									
22 Montana.....									
19 Wyoming.....	4,125	2,567	1,558	(D)	...	4,071	98.7	2,513	1,558
23 Washington (includes Alaska).....									

D Withheld to avoid approximately disclosing figures for individual companies. ¹For the definition of bituminous coal and lignite producing districts, see pages 14 and 15. ²Represents all marketable coal sold or used, including coal produced at operations in other mineral industries and at State-owned or State-operated mines. ³Includes coal not sold in the open market, except coal produced and used at the same establishment for power or heat and sales to employees. ⁴Represents only coal used at the producing establishment for power or heat and sales to employees. ⁵Not shown, since the net marketable coal sold or used, as shown in column 1, includes large tonnages of coal originating in another district but cleaned in Indiana. The production included in the distribution survey represents over 98 percent of the production originating in Indiana.

Table 2.—GENERAL STATISTICS FOR THE BITUMINOUS COAL AND LIGNITE INDUSTRIES IN THE UNITED STATES AND ALASKA: BY COAL PRODUCING DISTRICT: 1954

Coal producing district ¹	Number of establishments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
United States and Alaska, total...	6,713	2,057,171	1,411,644	198,639	19,121	323,999	761,836	109,511	103,183
1 Eastern Pennsylvania.....	1,126	160,772	107,549	19,666	1,718	30,532	68,618	8,585	7,899
2 Western Pennsylvania.....	525	289,515	189,916	26,602	3,174	43,608	106,205	20,155	9,605
3,6 Northern West Virginia and Panhandle.	504	168,014	120,565	15,899	1,331	25,913	59,604	7,433	11,260
4 Ohio.....	517	130,254	90,164	10,015	1,117	17,910	41,181	6,594	6,028
7 Southern No. 1.....	554	269,404	166,139	26,388	1,932	43,806	107,499	11,906	17,613
8 Southern No. 2.....	1,994	509,834	356,372	55,208	5,163	89,902	206,041	26,082	20,510
9 West Kentucky.....	132	71,074	54,182	6,111	572	10,341	24,983	2,982	4,135
10 Illinois.....	198	179,920	129,161	13,491	1,465	21,988	55,958	8,764	10,499
11 Indiana.....	98	69,313	39,588	4,153	591	6,764	17,663	3,951	6,519
12 Iowa.....	73	4,543	3,556	562	40	991	1,549	173	360
13 Southeastern.....	462	82,785	62,765	9,556	941	15,164	31,195	6,485	4,270
16 Northern Colorado.....	15	16,392	13,831	2,490	191	3,311	8,105	1,023	418
17 Southern Colorado.....	121								
20 Utah.....	54	32,924	24,020	2,735	356	4,351	10,533	2,188	1,474
14 Arkansas-Oklahoma.....	55	49,531	35,873	3,650	348	6,149	13,691	2,018	1,356
15 Southwestern.....	125								
18 New Mexico.....	19								
21 North Dakota-South Dakota.....	46								
22 Montana.....	38	22,896	17,963	2,113	182	3,269	9,011	1,172	1,237
19 Wyoming.....	32								
23 Washington (includes Alaska).....	25								

¹See table 1, footnote 1.

Table 3.—DISTRIBUTION OF BITUMINOUS COAL AND LIGNITE, BY METHOD OF SHIPMENT, GEOGRAPHIC

(Represents a sample including approximately 98

(1,000

	Method of shipment, Geographic division, State of destination, and class of consumer	Total	District of origin ¹			
			1 Eastern Pennsylvania	2 Western Pennsylvania	3 and 6 Northern West Virginia and Panhandle	4 Ohio
1	Net production included in sample (United States and Alaska), total...	383,883	28,308	42,344	36,199	31,757
2	Coal sold in open market.....	307,363	25,052	14,760	31,740	28,119
3	Coal not sold in open market.....	76,520	3,256	27,584	4,459	3,638
4	Shipments by rail, river, combination rail and river, truck (destination known), and conveyor (other than railroad fuel), total....	295,034	21,245	38,059	26,714	25,146
5	Coal sold in open market, total.....	228,016	18,424	11,995	22,301	21,600
6	Electric utilities.....	84,045	7,331	2,163	9,798	9,346
7	Coke and gas plants.....	19,793	1,285	4,530	1,821	122
8	Retail dealers.....	44,087	1,506	1,431	1,404	2,729
9	All others.....	80,091	8,302	3,871	9,278	9,403
10	Coal not sold in open market.....	67,018	2,821	26,064	4,413	3,546
DESTINATION						
New England						
11	Massachusetts (coal sold in open market), total.....	1,401	847	3	414	...
12	Electric utilities.....	529	437	1	54	...
13	Retail dealers.....	182	86	...	67	...
14	Coke and gas plants and all others.....	690	324	2	293	...
15	Connecticut (coal sold in open market), total.....	1,066	745	4	312	...
16	Electric utilities.....	594	419	1	174	...
17	Retail dealers.....	106	78	...	25	...
18	All others.....	366	248	3	113	...
19	Maine, New Hampshire, Vermont, and Rhode Island (coal sold in open market), total.....	757	219	3	208	...
20	Electric utilities.....	142	(6)	...	(6)	...
21	Retail dealers.....	109	42	2	35	...
22	Coke and gas plants and all others.....	506	6177	1	6173	...
Middle Atlantic						
23	New York, total.....	15,947	6,316	2,032	6,743	220
24	Coal sold in open market.....	14,452	46,316	42,032	46,743	220
25	Electric utilities.....	5,450	1,962	318	3,073	(6)
26	Coke and gas plants.....	1,317	297	311	288	...
27	Retail dealers.....	869	377	83	276	28
28	All others.....	6,816	3,680	1,320	3,106	6192
29	Coal not sold in open market.....	1,495	...	...	...	...
30	New Jersey (coal sold in open market), total.....	4,578	2,017	166	2,311	...
31	Electric utilities.....	2,728	1,223	(6)	1,372	...
32	Coke and gas plants.....	21	...	...	(5)	...
33	Retail dealers.....	238	169	6166	50	...
34	All others.....	1,591	625	...	5889	...
35	Pennsylvania, total.....	43,405	8,082	26,828	6,520	211
36	Coal sold in open market.....	21,166	48,082	7,786	46,520	211
37	Electric utilities.....	5,718	2,234	1,192	2,179	5
38	Coke and gas plants.....	4,560	661	2,472	738	...
39	Retail dealers.....	2,260	624	1,168	133	91
40	All others.....	8,628	4,563	2,954	3,470	115
41	Coal not sold in open market.....	22,239	...	19,042	...	...
East North Central						
42	Ohio, total.....	745,515	174	75,260	2,395	21,047
43	Coal sold in open market.....	734,892	174	71,332	2,395	17,501
44	Electric utilities.....	11,100	...	(6)	1,163	7,436
45	Coke and gas plants.....	73,996	...	(5)	(5)	122
46	Retail dealers.....	7,050	174	107	351	2,369
47	All others.....	12,746	...	81,225	5881	7,574
48	Coal not sold in open market.....	10,623	...	3,928	...	3,546
49	Indiana, total.....	925,367	1	...	82	9105
50	Coal sold in open market.....	916,639	1	...	82	9105
51	Electric utilities.....	97,030	...	...	...	(6)
52	Coke and gas plants.....	1,475	...	...	...	...
53	Retail dealers.....	93,302	...	...	82	11105
54	All others.....	94,832	1	...	...	...
55	Coal not sold in open market.....	8,728	...	...	...	...
56	Illinois, total.....	937,244	5	...	97	(9)
57	Coal sold in open market.....	934,692	5	...	97	(9)
58	Electric utilities.....	914,419	...	...	...	(9)
59	Coke and gas plants.....	1,073	...	...	(5)	...
60	Retail dealers.....	99,073	1	...	62	(9)
61	All others.....	910,126	4	...	535	(9)
62	Coal not sold in open market.....	2,553	...	...	...	...

See footnotes at end of table.

DISTRIBUTION OF BITUMINOUS COAL AND LIGNITE

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DIVISION AND STATE OF DESTINATION, AND CLASS OF CONSUMER; AND BY DISTRICT OF ORIGIN: 1954

percent of total 1954 production. See Table 1.)

short tons)

District of origin ¹ —Continued										
7 Southern No. 1	8 Southern No. 2	9 West Kentucky	10 Illinois	11 Indiana	12 Iowa	13 South- eastern	14, 15, 18, 21, and 22 Arkansas-Oklahoma, Southwestern, New Mex- ico, North Dakota-South Dakota, and Montana	16 and 17 Northern and Southern Colorado	19 and 23 Wyoming and Washington	20 Utah
38,385 29,881 8,504	92,536 81,301 11,235	22,264 22,230 34	41,752 39,871 1,881	13,215 213,167 348	1,099 1,096 3	12,529 5,207 7,322	11,644 8,509 3,135	2,846 1,906 940	4,071 2,513 1,558	4,934 2,772 2,162
23,154	61,169	17,494	36,834	11,636	1,054	12,110	10,244	2,700	2,731	4,744
16,072 2,682 4,095 6,522 2,773 7,082	52,893 14,032 6,109 13,918 18,834 8,276	417,494 8,040 (5) 3,788 55,666	436,834 17,693 (5) 6,652 12,489	411,636 4,963 16 1,397 5,260	1,054 456 ... 243 355 ...	4,839 2,668 795 437 939 7,271	8,260 3,853 583 1,446 2,378 1,984	1,817 347 190 767 513 883	2,388 522 (5) 376 1,490 343	2,618 151 (5) 1,471 996 2,126
89 (6) 28 661	48 (6) 1 647	............	............	............	............	............	............	............	............	............
1 ... 1 ...	4 ... 2 2	............	............	............	............	............	............	............	............	............
5 ... 4 1	322 (6) 26 6296	............	............	............	............	............	............	............	............	............
192 4192 (6) 64 74 654	444 444 1 357 31 55	..................	..................	..................	..................	..................	..................	..................	..................	..................
50 50	34 ... 2 2 30	...............	...............	...............	...............	...............	...............	...............	...............	...............
1,313 688 (6) 402 157 6129 625	451 451 (6) 287 87 677...	.....................	.....................	.....................	.....................	.....................	.....................	.....................	.....................	.....................
3,911 2,251 (6) 1,120 1,007 6124 1,660	12,714 11,225 2,096 2,012 3,209 3,908 1,489	14 14 14	.....................	.....................	.....................	.....................	.....................	.....................	.....................	.....................
5,260 45,260 (6) 104,776 476 68 (10)	8,600 3,718 1,060 514 1,725 419 4,882	1,151 1,151 636 ... 111 404 ...	1,345 1,345 699 ... 29 404 ...	8,823 48,823 4,594 (5) 844 617 53,385	.....................	.....................	.....................	.....................	.....................	.....................
1,772 41,772 ... 272 1,086 414	3,200 43,200 59 633 1,310 1,198	3,697 3,697 969 ... 1,659 1,069	26,662 426,662 13,233 (5) 4,499 58,930	1,811 1,811 158 ... 456 1,197	..................	..................	..................	..................	..................	..................

Table 3.—DISTRIBUTION OF BITUMINOUS COAL AND LIGNITE, BY METHOD OF SHIPMENT, GEOGRAPHIC

(Represents a sample including approximately 98

(1,000

Method of shipment, Geographic division, State of destination, and class of consumer		Total	District of origin ¹			
			1 Eastern Pennsylvania	2 Western Pennsylvania	3 and 6 Northern West Virginia and Panhandle	4 Ohio
Shipments by rail, river, combination rail and river, truck (destination known), and conveyor (other than railroad fuel)—Continued						
East North Central—Continued						
1	Michigan, total.....	1 ² 12,612	1	(7)	1 ³ 279	1 ⁴ 2,595
2	Coal sold in open market.....	1 ² 12,555	1	(7)	1 ³ 279	1 ⁴ 2,595
3	Electric utilities.....	2,386	...	...	81	1,075
4	Coke and gas plants.....	1 ² 1,108	...	(7)	...	...
5	Retail dealers.....	4,262	...	...	63	150
6	All others.....	1 ² 4,781	1	...	1 ³ 135	1 ⁴ 1,370
7	Coal not sold in open market.....	57	...	...	...	...
8	Wisconsin (coal sold in open market), total.....	1 ⁴ 3,932	...	...	19	(14)
9	Electric utilities.....	1,001	...	...	...	...
10	Coke and gas plants.....	92	...	...	...	...
11	Retail dealers.....	982	...	...	19	...
12	All others.....	1 ⁴ 1,857	...	...	...	(14)
West North Central						
13	Minnesota, total.....	2,384	1	...	(13)	...
14	Coal sold in open market.....	4 ² 384	1	...	(13)	...
15	Electric utilities.....	1,402	...	...	...	...
16	Retail dealers.....	281	...	...	...	...
17	All others.....	701	1	...	(13)	...
18	Coal not sold in open market.....	...	...	...	...	...
19	Iowa (coal sold in open market), total.....	4,834	1	...	1	...
20	Electric utilities.....	1,346	...	...	...	...
21	Coke and gas plants.....	21	...	...	...	...
22	Retail dealers.....	1,822	...	...	1	...
23	All others.....	1,645	1	...	...	...
24	Missouri, total.....	1 ⁶ 6,333	2	...	...	...
25	Coal sold in open market.....	1 ⁶ 5,552	2	...	...	...
26	Electric utilities.....	2,074	...	...	...	...
27	Coke and gas plants.....	245	...	...	...	...
28	Retail dealers.....	1 ⁶ 1,518	...	...	...	...
29	All others.....	1 ⁶ 1,715	2	...	...	...
30	Coal not sold in open market.....	781	...	...	...	...
31	North Dakota and South Dakota, total.....	1 ⁹ 2,754	...	...	...	...
32	Coal sold in open market.....	1 ⁹ 2,438	...	...	...	...
33	Electric utilities.....	1,324	...	...	...	...
34	Retail dealers.....	1 ⁹ 677	...	...	...	...
35	All others.....	1 ⁹ 437	...	...	...	...
36	Coal not sold in open market.....	316	...	...	...	...
37	Nebraska and Kansas (coal sold in open market), total.....	1 ⁹ 1,456	1	...	...	...
38	Electric utilities.....	577	...	...	...	...
39	Retail dealers.....	1 ⁹ 406	...	...	...	...
40	All others.....	1 ⁹ 473	1	...	...	...
South Atlantic						
41	Delaware and Maryland, total.....	2 ¹ 6,067	1,978	159	3,400	...
42	Coal sold in open market.....	2 ¹ 2,962	1,978	159	4 ³ 400	...
43	Electric utilities.....	1,518	834	(6)	509	...
44	Coke and gas plants.....	2 ¹ 305	...	...	(5)	...
45	Retail dealers.....	2 ¹ 248	94	...	46	...
46	All others.....	2 ¹ 891	...	6 ¹ 59	...	...
47	Coal not sold in open market.....	3,105	1,050	...	5 ² 845	...
48	District of Columbia (coal sold in open market), total.....	2 ² 1,021	97	(22)	33	...
49	Electric utilities.....	639	94	...	(6)	...
50	Retail dealers.....	291	1	...	633	...
51	All others.....	2 ² 91	2	(22)	...	...
52	Virginia, total.....	8,526	51	...	2335	(24)
53	Coal sold in open market.....	8,526	51	...	2335	(24)
54	Electric utilities.....	3,153	(6)	...	(6)	(24)
55	Coke and gas plants.....	2 ¹ 363	...	...	(5)	...
56	Retail dealers.....	2 ¹ 1,351	...	...	3	...
57	All others.....	2 ¹ 3,659	651	...	2632	...
58	Coal not sold in open market.....	...	...	...	...	...
59	West Virginia, total.....	2 ⁷ 14,047	194	223,436	3,495	24933
60	Coal sold in open market.....	2 ⁷ 10,283	194	223,436	2,581	24933
61	Electric utilities.....	243,817	...	...	1,169	24722
62	Coke and gas plants.....	3,017	...	(5)	709	...
63	Retail dealers.....	407	194	...	117	...
64	All others.....	223,042	...	283,436	586	211
65	Coal not sold in open market.....	3,764	...	...	914	...

See footnotes at end of table.

12B-9

short tons)

[illegible]

Table 3.—DISTRIBUTION OF BITUMINOUS COAL AND LIGNITE, BY METHOD OF SHIPMENT, GEOGRAPHIC

(Represents a sample including approximately 98

(1,000

	Method of shipment, Geographic division, State of destination, and class of consumer	Total	District of origin ¹			
			1 Eastern Pennsylvania	2 Western Pennsylvania	3 and 6 Northern West Virginia and Panhandle	4 Ohio
	Shipments by rail, river, combination rail and river, truck (destination known), and conveyor (other than railroad fuel)—Continued					
	South Atlantic—Continued					
1	North Carolina (coal sold in open market), total.....	6,748	...	...	(23)	...
2	Electric utilities.....	3,194	...	...	...	...
3	Coke and gas plants.....	26	...	...	...	...
4	Retail dealers.....	1,295	...	...	...	...
5	All others.....	2,233	...	...	(23)	...
6	South Carolina (coal sold in open market), total.....	2,316	...	...	...	...
7	Electric utilities.....	677	...	...	...	...
8	Coke and gas plants.....	501	...	...	...	...
9	Retail dealers.....	1,138	...	...	...	...
10	All others.....	1,138	...	...	...	...
11	Georgia and Florida (coal sold in open market), total.....	2,304	...	...	...	...
12	Electric utilities.....	1,100	...	...	...	...
13	Coke and gas plants.....	(5)	...	...	...	...
14	Retail dealers.....	585	...	...	...	...
15	All others.....	5619	...	...	...	...
	East South Central					
16	Kentucky, total.....	8,421	...	...	...	...
17	Coal sold in open market.....	7,681	...	...	...	...
18	Electric utilities.....	4,345	...	...	...	...
19	Coke and gas plants.....	165	...	...	...	...
20	Retail dealers.....	1,093	...	...	...	...
21	All others.....	2,078	...	...	...	...
22	Coal not sold in open market.....	740	...	...	...	...
23	Tennessee, total.....	8,800	...	...	...	...
24	Coal sold in open market.....	8,615	...	...	...	...
25	Electric utilities.....	4,470	...	...	...	...
26	Coke and gas plants.....	40	...	...	...	...
27	Retail dealers.....	1,715	...	...	...	...
28	All others.....	2,390	...	...	...	...
29	Coal not sold in open market.....	185	...	...	...	...
30	Alabama and Mississippi, total.....	11,547	...	...	...	...
31	Coal sold in open market.....	4,368	...	...	...	...
32	Electric utilities.....	2,179	...	...	...	...
33	Coke and gas plants.....	850	...	...	...	...
34	Retail dealers.....	476	...	...	...	...
35	All others.....	863	...	...	...	...
36	Coal not sold in open market.....	7,179	...	...	...	...
	West South Central					
37	Arkansas, Louisiana, Oklahoma, and Texas, total.....	2,735	...	...	...	...
38	Coal sold in open market.....	42,735	...	...	...	...
39	Coke and gas plants.....	(5)	...	...	...	...
40	Retail dealers.....	118	...	...	...	...
41	Electric utilities and all others.....	52,617	...	...	...	...
42	Coal not sold in open market.....	52,617	...	...	...	...
43	Colorado, total.....	2,417	...	...	...	...
44	Coal sold in open market.....	1,534	...	...	...	...
45	Electric utilities.....	335	...	...	...	...
46	Coke and gas plants.....	144	...	...	...	...
47	Retail dealers.....	576	...	...	...	...
48	All others.....	479	...	...	...	...
49	Coal not sold in open market.....	883	...	...	...	...
50	Utah, total.....	422,434	...	...	...	...
51	Coal sold in open market.....	422,434	...	...	...	...
52	Electric utilities.....	151	...	...	...	...
53	Coke and gas plants.....	330	...	...	...	...
54	Retail dealers.....	42,411	...	...	...	...
55	All others.....	421,542	...	...	...	...
56	Coal not sold in open market.....	421,542	...	...	...	...
57	Montana, Idaho, Wyoming, New Mexico, Arizona, and Nevada, total.....	421,875	...	...	...	...
58	Coal sold in open market.....	421,575	...	...	...	...
59	Electric utilities.....	93	...	...	...	...
60	Retail dealers.....	42,808	...	...	...	...
61	All others.....	42,674	...	...	...	...
62	Coal not sold in open market.....	42,300	...	...	...	...

See footnotes at end of table.

12B-11

short tons)

[illegible]

Table 3.—DISTRIBUTION OF BITUMINOUS COAL AND LIGNITE, BY METHOD OF SHIPMENT, GEOGRAPHIC

(Represents a sample including approximately 98

(1,000

Method of shipment, Geographic division, State of destination, and class of consumer	Total	District of origin ¹			
		1 Eastern Pennsylvania	2 Western Pennsylvania	3 and 6 Northern West Virginia and Panhandle	4 Ohio
Shipments by rail, river, combination rail and river, truck (destination known), and conveyor (other than railroad fuel)—Continued					
Pacific					
1 Washington, Oregon, and California, total.....	3,099	(47)	...	...	...
2 Coal sold in open market.....	2,116	(47)	...	...	...
3 Coke and gas plants.....	91	...	...	...	...
4 Retail dealers.....	609	...	...	...	...
5 Electric utilities and all others.....	1,416	(47)	...	...	...
6 Coal not sold in open market.....	983	...	...	...	...
7 Alaska (coal sold in open market).....	48,647	...	...	...	...
8 Canada (coal sold in open market), total.....	481,836	456	167	311	34
9 Electric utilities.....	115	110	(6)	...	...
10 Retail dealers.....	48,443	26	69	79	26
11 Coke and gas plants and all others.....	1,278	320	698	232	8
12 Destination unknown.....	624	4757	1	59	1
Water transshipment (excludes railroad fuel; includes bunker fuel)					
13 Shipments via Great Lakes ports, total.....	4931,498	1,761	2,939	4,090	3,961
14 Coal sold in open market.....	4928,232	1,761	1,607	4,090	3,961
15 Coal not sold in open market.....	3,266	...	1,332	...	...
16 Shipments via Tidewater ports, total.....	5027,615	3,018	86	2,858	...
17 Coal sold in open market.....	5026,224	3,018	86	2,858	...
18 Coal not sold in open market.....	1,391	...	...	...	...
19 Shipments by truck (destination unknown), total.....	505,046	587	442	113	443
20 Coal sold in open market.....	505,037	587	442	113	443
21 Coal not sold in open market.....	9	...	...	...	...
Railroad fuel (engine, powerhouse, and station use)					
22 United States companies, total.....	12,392	52,497	484	987	1,414
23 Coal sold in open market.....	9,345	52,497	484	987	1,414
24 Coal not sold in open market.....	3,047	...	...	...	...
25 Canadian companies, total.....	493,077	(52)	...	418	646
26 Coal sold in open market.....	493,071	(52)	...	418	646
27 Coal not sold in open market.....	6	...	...	...	...
28 Shipments through distributors and wholesalers (destination and use not reported; and sold in open market).....	7,263	883	148	947	54
29 Coal used at mines and sales to employees (coal not sold in open market).....	1,686	301	174	42	51
30 Net change in inventory, total.....	271	16	12	30	42
31 Companies selling primarily in open market.....	174	18	-2	30	42
32 Companies not selling primarily in open market.....	97	-2	14	...	...

¹For the definition of bituminous coal and lignite producing districts, see pages 14 and 15. ²Includes coal not sold in open market except coal used at mines and sales to employees. ³Includes only coal used at mines and sales to employees. ⁴Includes "Coal not sold in open market." ⁵Shipments to "Coke and gas plants" are included with shipments to "All others." ⁶Shipments to "Electric utilities" are included with shipments to "All others." ⁷District 2 shipments to Michigan are included with shipments to Ohio. ⁸Includes shipments to "Electric utilities" and to "Coke and gas plants" in Ohio and Michigan. ⁹District 4 shipments to Illinois are included with shipments to Indiana. ¹⁰Coal not sold in open market" is included with shipments to "Coke and gas plants." ¹¹Represents shipments to "Electric utilities", "Retail dealers", and "All others" in Indiana and Illinois. ¹²Excludes District 2 shipments to Michigan, includes District 3 and 6 shipments to Minnesota and District 4 shipments to Wisconsin. ¹³Districts 3 and 6 shipments to Minnesota are included with shipments to Michigan. ¹⁴District 4 shipments to Wisconsin are included with Michigan. ¹⁵Includes shipments to "Electric utilities" and to "Coke and gas plants." ¹⁶Shipments to Minnesota and Missouri are included with shipments to Iowa. ¹⁷Shipments to Iowa are included with shipments to North and South Dakota. ¹⁸Includes shipments to "Electric utilities", "Coke and gas plants", and to "All others" in Iowa, Minnesota, and Missouri. ¹⁹District 20 shipments to North and South Dakota are included with shipments to Nebraska and Kansas. ²⁰Includes "Coal not sold in open market" and shipments to Iowa. ²¹District 8 shipments to Delaware and Maryland are included with shipments to Virginia. ²²District 2 shipments to the District of Columbia are included with shipments to West Virginia. ²³Shipments to North Carolina are included with shipments to Virginia. ²⁴Shipments to Virginia are included with shipments to West Virginia. ²⁵Includes "Coal not sold in open market" and shipments to Delaware and Maryland. ²⁶Includes shipments to "Electric utilities" and "Coke and gas plants" and shipments to North Carolina. ²⁷Includes shipments to the District of Columbia and to Virginia. ²⁸Includes shipments to "Coke and gas plants" and shipments to the District of Columbia. ²⁹District 7 shipments to Georgia and Florida are included in shipments to South Carolina; District 13 shipments to South Carolina are included with shipments to Georgia and Florida.

DIVISION AND STATE OF DESTINATION, AND CLASS OF CONSUMER; AND BY DISTRICT OF ORIGIN: 1954—Continued
percent of total 1954 production. See Table 1.)
short tons)

District of origin ¹ —Continued										
7 Southern No. 1	8 Southern No. 2	9 West Kentucky	10 Illinois	11 Indiana	12 Iowa	13 South- eastern	14, 15, 18, 21, and 22 Arkansas-Oklahoma, Southwestern, New Mex- ico, North Dakota-South Dakota, and Montana	16 and 17 Northern and Southern Colorado	19 and 23 Wyoming and Washington	20 Utah
(47)	...	...	...	...	...	...	283	(44)	953	1,848
(47)	...	...	...	...	...	...	283	(44)	953	1,848
...	...	...	...	...	...	...	75	(44)	(5)	3
...	...	...	...	...	...	...	...	(44)	144	464
(47)	...	...	...	...	...	...	208	{ ...	5809	5
...	...	...	...	...	...	...	...	{ ...	...	51,384
...	...	...	...	...	...	...	...	...	48,647	...
120	566	182	...	...	...	...	...	...	(48)	...
...	(6)	...	...	...	...	...	...	...	...	...
87	154	2	...	...	...	...	...	...	(48)	...
33	6412	180	...	...	...	...	...	...	...	...
4761	301	...	145	...	...	...	2	...	...	6
3,797	12,528	2,422	(49)	...	...	...	...	...	...	...
3,797	12,528	2,422	(49)	...	...	...	...	...	...	...
9,758	11,891	4	...	...	...	(50)	...	...	...	...
9,758	11,891	4	...	...	...	(50)	...	...	...	...
156	563	283	1,210	540	5137	50275	127	47	64	160
156	563	283	1,210	540	5137	50275	127	47	64	160
...
208	522,246	1,354	1,852	52966	(51)	3	1,216	43	1,165	32
208	522,246	1,354	1,852	52966	(51)	3	1,216	43	1,165	32
...	(52)	...	491,465	(52)	...	...	...	...	...	...
...	(52)	...	491,465	(52)	...	...	...	...	...	...
...	(52)	...	...	...	...	...	...	...	...	...
1,014	3,953	182	...	...	8	65	9	...	...	...
267	292	33	215	48	3	52	27	56	96	29
31	-106	19	176	25	-3	24	21	...	15	-31
64	...	18	...	25	-3	25	-21	-1	...	31
-33	-106	1	176	...	...	-1	42	1	15	-31

³⁰Shipments to Georgia and Florida are included with shipments to Alabama and Mississippi. ³¹Shipments to Tennessee are included with shipments to Arkansas, Louisiana, Oklahoma, and Texas. ³²Shipments to Arkansas, Louisiana, Oklahoma, and Texas are included with shipments to Alabama and Mississippi. ³³Shipments to "All others" are included with shipments to "Coke and gas plants." ³⁴Shipments to Arkansas, Louisiana, Oklahoma, and Texas are included with shipments to Colorado. ³⁵Includes "Coal not sold in open market" and shipments to Tennessee. ³⁶Shipments to Colorado are included with shipments to Utah. ³⁷Shipments to Arkansas, Louisiana, Oklahoma, and Texas, and to Utah are included with Colorado. ³⁸Includes "Coal not sold in open market" and shipments to Arkansas, Louisiana, Oklahoma, and Texas and Utah. ³⁹Shipments to "Electric utilities" are included with shipments to "Retail dealers." ⁴⁰Includes shipments to "Coke and gas plants" in Colorado and Utah. ⁴¹Shipments to Utah are included with shipments to Colorado. ⁴²Districts 19 and 23 shipments to Utah are included with shipments to Montana, Idaho, Wyoming, New Mexico, Arizona, and Nevada. ⁴³Includes "Coal not sold in open market"; excludes Districts 19 and 23 shipments to Utah. ⁴⁴Shipments to Washington, Oregon, and California are included with shipments to Montana, Idaho, Wyoming, New Mexico, Arizona, and Nevada. ⁴⁵District 19 and 23 shipments include "Coal not sold in open market" and shipments to Utah. ⁴⁶Includes shipments to "Coke and gas plants" in Washington, Oregon, and California. ⁴⁷District 1 and District 7 shipments to Washington, Oregon, and California are included with shipments "Destination unknown." ⁴⁸Districts 19 and 23 shipments to Canada are included with shipments to Alaska. ⁴⁹District 10 "Water transshipments via Great Lakes ports" are included with "Railroad fuel" for "Canadian companies." ⁵⁰District 13 "Water transshipments via Tidewater ports" are included with "Shipments by truck (destination unknown)." ⁵¹"Railroad fuel" for "United States companies" is included with "Shipments by truck (destination unknown)." ⁵²Figures for "Canadian companies" are included with figures for "United States companies."

DEFINITION OF BITUMINOUS COAL AND LIGNITE PRODUCING DISTRICTS

DISTRICT 1.--EASTERN PENNSYLVANIA

Pennsylvania

Armstrong County (part).--All mines east of the Allegheny River, and those mines served by the Pittsburgh and Shawmut Railroad located on the west bank of the river.

Fayette County (part).--All mines located on and east of the line of Indian Creek Valley branch of the Baltimore and Ohio Railroad.

Indiana County (part).--All mines not served by the Saltsburg branch of the Pennsylvania Railroad.

Westmoreland County (part).--All mines served by the Pennsylvania Railroad from Torrance, east.

All mines in the following counties:

Bedford	Cameron	Clinton	Huntingdon	Mifflin
Blair	Centre	Elk	Jefferson	Potter
Bradford	Clarion	Forest	Lycoming	Somerset
Cambria	Clearfield	Fulton	McKean	Tioga

Maryland.--All mines in the State.

West Virginia.--All mines in the following counties:

Grant Mineral Tucker

DISTRICT 2.--WESTERN PENNSYLVANIA

Pennsylvania

Armstrong County (part).--All mines west of the Allegheny River except those mines served by the Pittsburgh and Shawmut Railroad.

Fayette County (part).--All mines except those on and east of the line of Indian Creek Valley branch of the Baltimore and Ohio Railroad.

Indiana County (part).--All mines served by the Saltsburg branch of the Pennsylvania Railroad.

Westmoreland County (part).--All mines except those served by the Pennsylvania Railroad from Torrance, east.

All mines in the following counties:

Allegheny	Butler	Lawrence	Venango
Beaver	Greene	Mercer	Washington

DISTRICT 3.--NORTHERN WEST VIRGINIA

West Virginia

Nicholas County (part).--All mines served by or north of the Baltimore and Ohio Railroad.

All mines in the following counties:

Barbour	Doddridge	Jackson	Monongalia	Randolph	Taylor	Webster
Braxton	Gilmer	Lewis	Pleasants	Ritchie	Tyler	Wetzel
Calhoun	Harrison	Marion	Preston	Roane	Upshur	Wirt
						Wood

DISTRICT 4.--OHIO.--All mines in the State.

DISTRICT 5.--MICHIGAN.--All mines in the State.

DISTRICT 6.--PANHANDLE

West Virginia.--All mines in the following counties:

Brooke Hancock Marshall Ohio

DISTRICT 7.--SOUTHERN NO. 1

West Virginia

Fayette County (part).--All mines east of Gauley River and all mines served by the Gauley River branch of the Chesapeake and Ohio Railroad and mines served by the Virginian Railway.

McDowell County (part).--All mines in that portion of the county served by the Dry Fork Branch of the Norfolk and Western Railroad and east thereof.

Raleigh County (part).--All mines except those on the Coal River Branch of the Chesapeake and Ohio Railroad and north thereof.

Wyoming County (part).--All mines in that portion served by the Gilbert branch of the Virginian Railway lying east of the mouth of Skin Fork of Guyandot River and in that portion served by the main line and the Glen Rogers branch of the Virginian Railway.

All mines in the following counties:

Greenbrier Mercer Monroe Pocahontas Summers

Virginia

Buchanan County (part).--All mines in that portion of the county served by the Richlands-Jewell Ridge branch of the Norfolk and Western Railroad and in that portion on the headwaters of Dismal Creek east of Lynn Camp Creek (a tributary of Dismal Creek).

Tazewell County (part).--All mines in those portions of the county served by the Dry Fork branch to Cedar Bluff and from Bluestone Junction to Boissevain branch of the Norfolk and Western Railroad and Richlands-Jewell Ridge branch of the Norfolk and Western Railroad.

All mines in the following counties:

Montgomery Pulaski Wythe Giles Craig

DISTRICT 8.--SOUTHERN NO. 2

West Virginia

Fayette County (part).--All mines west of the Gauley River except mines served by the Gauley River branch of the Chesapeake and Ohio Railroad.

McDowell County (part).--All mines west of and not served by the Dry Fork branch of the Norfolk and Western Railroad.

Nicholas County (part).--All mines in that part of the county south of and not served by the Baltimore and Ohio Railroad.

Raleigh County (part).--All mines on the Coal River branch of the Chesapeake and Ohio Railroad and north thereof.

Wyoming County (part).--All mines in that portion served by the Gilbert branch of the Virginian Railway and lying west of the mouth of Skin Fork of Guyandot River.

All mines in the following counties:

Boone Clay Lincoln Mason Putnam
Cabell Kanawha Logan Mingo Wayne

DEFINITION OF BITUMINOUS COAL AND LIGNITE PRODUCING DISTRICTS--Continued

DISTRICT 8.--SOUTHERN NO. 2--Continued

Virginia

Buchanan County (part).--All mines in the county, except in that portion on the headwaters of Dismal Creek, east of Lynn Camp Creek (a tributary of Dismal Creek) and in that portion served by the Richlands-Jewell Ridge branch of the Norfolk and Western Railroad.

Tazewell County (part).--All mines in the county except in those portions served by the Dry Fork branch of the Norfolk and Western Railroad and branch from Bluestone Junction to Boissevain of Norfolk and Western Railroad and Richlands-Jewell Ridge branch of the Norfolk and Western Railroad.

All mines in the following counties:

Dickinson
Lee

Russell
Scott

Wise

Kentucky.--All mines in the following counties in eastern Kentucky:

Bell	Clay	Harlan	Knox	Leslie	Martin	Pike
Boyd	Elliott	Jackson	Laurel	Letcher	Morgan	Rockcastle
Breathitt	Floyd	Johnson	Lawrence	McCreary	Owsley	Wayne
Carter	Greenup	Knott	Lee	Magoffin	Perry	Whitley

Tennessee.--All mines in the following counties

Anderson
Campbell
Claiborne

Cumberland
Fentress
Morgan

Overton
Roane
Scott

North Carolina.--All mines in the State.

DISTRICT 9.--WEST KENTUCKY

Kentucky.--All mines in the following counties in western Kentucky:

Butler	Hancock	McLean	Todd
Christian	Henderson	Muhlenberg	Union
Crittenden	Hopkins	Ohio	Warren
Daviess	Logan	Simpson	Webster

DISTRICT 10.--ILLINOIS.--All mines in the State.

DISTRICT 11.--INDIANA.--All mines in the State.

DISTRICT 12.--IOWA.--All mines in the State.

DISTRICT 13.--SOUTHEASTERN

Alabama.--All mines in the State.

Georgia.--All mines in the following counties:

Dade

Walker

Tennessee.--All mines in the following counties:

Bledsoe
Grundy

Hamilton
Marion

McMinn
Rhea

Sequatchie
Van Buren

Warren
White

DISTRICT 14.--ARKANSAS-OKLAHOMA

Arkansas.--All mines in the State.

Oklahoma.--All mines in the following counties:

Haskell

Le Flore

Sequoyah

DISTRICT 15.--SOUTHWESTERN

Kansas.--All mines in the State.

Texas.--All mines in the State.

Missouri.--All mines in the State.

Oklahoma.--All mines in the following counties:

Coal
Craig

Latimer
Muskogee

Okmulgee
Pittsburg

Rogers
Tulsa

Wagoner

DISTRICT 16.--NORTHERN COLORADO

All mines in the following counties in the State:

Adams
Arapahoe

Boulder
Douglas

Elbert
El Paso

Jackson
Jefferson

Larimer
Weld

DISTRICT 17.--SOUTHERN COLORADO

Colorado.--All mines except those included in District 16.

New Mexico.--All mines except those included in District 18.

DISTRICT 18.--NEW MEXICO

New Mexico.--All mines in the following counties:

Grant
Lincoln

McKinley
Rio Arriba

Sandoval
San Juan

San Miguel
Santa Fe

Socorro

Arizona.--All mines in the State.

California.--All mines in the State.

DISTRICT 19.--WYOMING

Wyoming.--All mines in the State.

Idaho.--All mines in the State.

DISTRICT 20.--UTAH.--All mines in the State.

DISTRICT 21.--NORTH DAKOTA-SOUTH DAKOTA.--All mines in North Dakota and South Dakota.

DISTRICT 22.--MONTANA.--All mines in the State.

DISTRICT 23.--WASHINGTON

Washington.--All mines in the State.

Oregon.--All mines in the State.

Alaska.--All mines in the Territory.

**CRUDE PETROLEUM AND NATURAL
GAS EXTRACTION**

13A-1

Crude Petroleum and Natural Gas Extraction

This report shows 1954 Census of Mineral Industries statistics for establishments classified in Major Group 13, Crude Petroleum and Natural Gas Extraction. This Major Group includes Group 131, Crude petroleum and natural gas, representing establishments primarily engaged in producing crude petroleum, natural gas, natural gasoline, cycle condensate, and natural gas liquids from natural gas; and Group 133, Oil and gas field contract services, representing establishments primarily engaged in performing exploration, well drilling, and other oil and gas field services. Statistics in Tables 1 and 3 of this report present combined figures for all industries in this Major Group. Separate industry figures are shown in Tables 2, 4, and 5. More complete statistics for each industry and a description of the types of establishments classified in each are provided in the following separate reports:

Report	Industries Covered
MI-13B--Crude Petroleum and Natural Gas	{ 1312--Crude petroleum 1313--Natural gas
MI-13C--Natural Gas Liquids	{ 1314--Natural gasoline 1315--Cycle condensate
MI-13D--Oil and Gas Field Contract Services	{ 1331--Drilling oil and gas wells 1332--Building, repairing, and dismantling rigs and derricks 1339--Oil and gas field contract services, n.e.c.

A crude petroleum or natural gas establishment, for Census purposes, was defined as covering all oil and gas field activities of an operating company in an entire State. Separate reports were required for each State in which a company operated. The establishment reports were classified in Industries 1312 or 1313 on the basis of the product having the greatest value, or for nonproducing operations on the basis of whether development work was primarily for oil or gas.

Separate reports were required for each natural gas liquids plant. The distinction between Industries 1314 and 1315 was made on the basis of the respondent's classification of the plant reported.

For companies engaged only in performing oil and gas field work on contract for others, an establishment was defined as covering all activities of the company in the United States, Alaska, and Hawaii. These reports were classified in separate contract services industries or subindustries on the basis of the principal kind of work performed as measured by receipts for such services. (The report MI-13D contains separate industry or subindustry statistics for establishments primarily engaged in performing 16 different types of work.)

If a company was engaged both in operating wells and performing contract work for others, separate reports were required for each State in which the company operated. These reports were classified in Groups 131 or 133 depending on whether value of shipments of crude petroleum and natural gas by the company in the State was greater or less than receipts for contract services performed for others.

The combined value of shipments and services of all industries included in Major Group 13 in the United States amounted to \$9,342 million in 1954. Of this total, the crude petroleum and natural gas industries accounted for \$7,070 million; the natural gas liquids industries for \$640 million; and the oil and gas field contract services industries for \$1,631 million. The gross value of shipments and services for this major industry group includes duplication in shipments amounting to approximately \$173 million resulting from the sale or transfer of natural gas liquids contained in natural gas to natural gas liquids plants for processing, and the transfer of recovered natural gas liquids from one plant to another for further processing. It also contains duplication due to one establishment in the group performing contract services for another in the same group.

The value of all shipments of crude petroleum was \$6,075 million, the value at wells of all natural gas shipments was \$943 million, the net value of natural gas liquids shipped, including field condensate and drips, was \$654 million; and receipts for contract services performed by all industries in this major group were \$1,556 million.

Statistics such as those compiled in the 1954 census for the crude petroleum and natural gas industries have been obtained from operators of oil and gas wells only in the 1954, 1939, 1919, and earlier decennial Censuses of Mineral Industries. For contractors, such establishment statistics have been obtained only at the 1954 and 1939 Censuses. Because of the many short term agreements and joint ventures under which exploration is conducted and wells are drilled and operated, it is particularly difficult to locate and obtain reports from operators in these industries. As a result, there is some undercoverage of oil and gas field operators and contractors in the 1954 Census. Available information does not permit a reliable measure of such undercoverage. However, it appears that coverage in these industries is above 95 percent in terms of crude petroleum produced and employment, and that coverage of the natural gas liquids industries is complete. It seems likely that coverage in the 1954 minerals census is more complete than in the 1939 census. Completeness of the census is discussed further in the report, MI-13B, Crude Petroleum and Natural Gas.

Report MI-13B contains detailed statistics on the costs reported by operators of oil and gas field properties for drilling and completing wells and on the amount paid contractors for such work. Report MI-13D shows detailed figures on the cost of drilling and equipping wells as reported by contractors. Table 3 of this report combines the data reported by both operators and contractors to provide a more precise measure of the actual cost to operators for drilling oil, gas, dry, and service wells as distinguished from costs for casing, and for equipment for flowing and pumping and production derricks.

The report forms used by the Bureau of the Census for the natural gas liquids industries also provided information required by the Bureau of Mines for its annual statistics on natural gasoline, cycle condensate, and liquefied petroleum gas. The statistics published by the Bureau of Mines for these items are not entirely comparable with the Census statistics, however, since the former include some data for natural gas liquids recovered incident to operation of transmission lines and for natural gas liquids recovered in oil field operations.

OIL AND GAS EXTRACTION IN THE UNITED STATES: 1860-1954

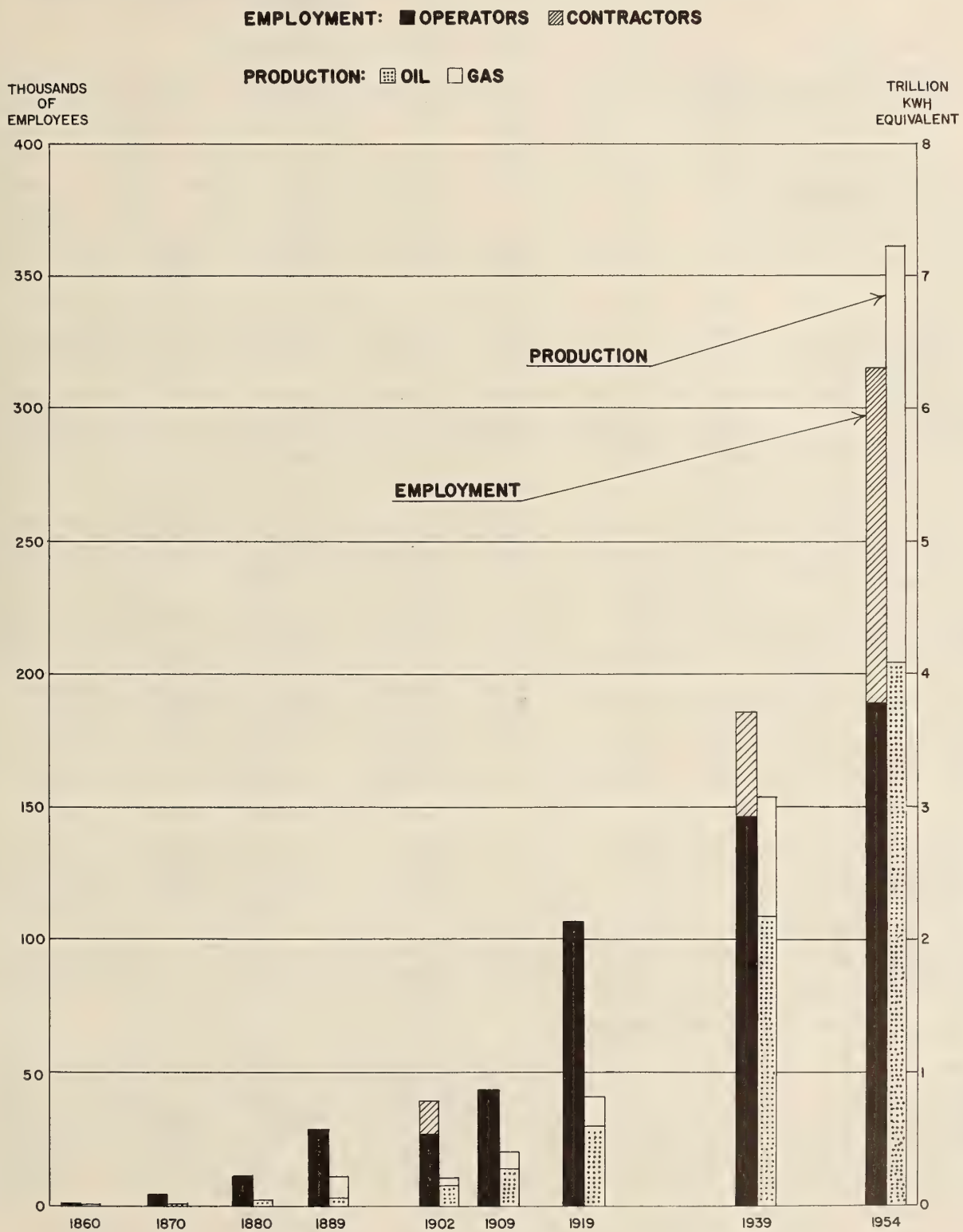


Table 1.—COMPARATIVE STATISTICS FOR THE CRUDE PETROLEUM AND NATURAL GAS EXTRACTION INDUSTRIES

(For explanation of line captions and for statement on the minimum

Item	1954			
	Crude petroleum and natural gas extraction industries, total	Crude petroleum and Natural gas industries	Natural gas liquids industries	Oil and gas field contract services industries
1 Number of operating companies.....	15,099	9,720	181	5,463
2 Number of establishments.....	17,585	11,508	562	5,515
3 Number of wells producing during December, total.....	493,611	485,907	xxx	7,704
4 Oil wells.....	426,703	419,517	xxx	7,186
5 Gas wells.....	66,908	66,390	xxx	518
6 Number of natural gas liquids plants.....	582	xxx	582	xxx
7 Crude petroleum produced ⁶.....1,000 barrels..	2,195,846	2,175,364	xxx	20,482
8 Field condensate and drips shipped ⁶.....do....	25,606	25,600	xxx	6
9 Natural gas liquids net shipments ⁶.....do....	252,067	xxx	252,067	xxx
10 Natural gas produced, total ⁶.....million cu.ft..	10,121,793	10,084,936	xxx	36,857
11 From oil wells.....do....	3,433,120	3,415,416	xxx	17,704
12 From gas wells.....do....	6,688,673	6,669,520	xxx	19,153
13 Natural gas shipped.....do....	8,013,828	7,978,179	xxx	35,649
14 Value of shipments, total ⁸.....\$1,000..	⁸ 9,341,539	7,070,097	⁸ 640,422	1,631,020
15 Crude petroleum ⁶.....do....	6,074,969	6,019,084	xxx	55,885
16 Field condensate and drips ⁶.....do....	77,161	77,140	xxx	21
17 Natural gas liquids: ⁶				
Transferred for further processing.....do....	57,556	xxx	57,556	xxx
18 Net shipments.....do....	576,828	xxx	576,828	xxx
19 Natural gas ⁶.....do....	943,494	938,884	xxx	4,610
20 Other products and purchases for resale.....do....	55,739	276	1,460	54,003
21 Amount received or due for services.....do....	1,555,792	34,713	4,578	1,516,501
22 Value added in mining.....do....	¹² 7,673,694	6,129,213	(NA)	1,118,544
23 Number of persons engaged, total.....	335,559	185,822	17,412	132,325
24 Production and development workers.....	235,483	109,792	13,560	112,131
25 All other employees.....	80,252	62,714	3,780	13,758
26 Proprietors and firm members.....	19,824	13,316	72	6,436
27 Performing manual labor.....	6,999	3,886	13	3,100
28 Man-hours worked by production and development workers, total.....1,000..	491,718	216,581	27,862	247,275
29 Operating and maintaining wells.....do....	158,615	156,906	xxx	1,709
30 Drilling wells and rig building.....do....	167,684	36,132	xxx	131,552
31 Other work, including exploration work (except drilling).....do....	165,419	23,543	27,862	114,014
32 Principal expenses designated below, total.....\$1,000..	¹² 4,493,399	3,054,030	¹² 228,384	1,095,620
33 Wages of production and development workers.....do....	976,595	459,955	63,983	452,657
34 Salaries of all other employees.....do....	485,848	375,785	21,074	88,989
35 Supplies ¹⁴.....do....	¹² 1,341,270	692,682	¹² 101,447	431,776
36 Fuel ¹⁶.....do....	96,810	36,177	1,964	58,669
37 Electric energy purchased.....do....	35,017	30,624	3,190	1,203
38 Contract work.....do....	1,557,859	1,458,807	36,726	62,326
39 Purchased machinery installed.....do....	863,205	621,048	65,752	176,405
40 Capital expenditures, total.....do....	2,226,316	1,898,454	109,959	217,903
41 Development and exploration of mineral property.....do....	1,229,958	1,206,214	xxx	23,744
42 Other construction.....do....	158,822	98,229	55,794	4,799
43 New machinery and equipment.....do....	767,750	558,950	51,227	157,573
44 Used plant and equipment.....do....	69,786	35,061	2,938	31,787
45 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....1,000..	20,101	9,123	2,902	8,076
46 Per production worker.....	85	83	214	72
47 Prime movers.....1,000..	18,804	7,962	2,808	8,034
48 Electric motors driven by purchased energy.....do....	1,297	1,161	94	42
49 Horsepower rating of electric motors driven by energy generated at the establishment.....do....	400	96	208	96
50 Energy used.....million kwh equivalent..	285,096	141,655	113,449	29,992
51 Coal.....1,000 short tons..	7	2	...	5
52 Fuel oils ¹⁸.....1,000 barrels..	4,595	2,206	7	2,382
53 Gas ¹⁸.....million cu.ft..	842,425	423,742	367,383	51,300
54 Other fuels.....\$1,000..	61,047	20,652	301	40,094
55 Electric energy purchased.....million kwh..	2,748	2,332	321	95
56 Electric energy generated and used.....do....	1,314	260	936	118

See footnotes at end of table.

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size of establishments included for each year, see INTRODUCTION)

1939				Crude petroleum, Natural gas, and Natural gas liquids industries								
Crude petroleum and natural gas extraction industries, total	Crude petroleum and Natural gas industries ¹	Natural gas liquids industries ¹	Oil and gas field contract services industries	1919	1909	1902 ²	1889	1880 ³	1870	1860 ⁴		
9,348	8,061	295	1,619	(NA)	8,053	31,736	(NA)	(NA)	(NA)	(NA)	1	
10,909	8,605	685	1,619	9,970	8,202	(NA)	(NA)	(NA)	2,314	64	2	
347,645	347,645	xxx	(⁵)	257,673	166,320	123,149	37,410	15,009	(NA)	(NA)	3	
300,179	300,179	xxx	(⁵)	(NA)	146,625	108,644	35,163	15,009	(NA)	(NA)	4	
47,466	47,466	xxx	(⁵)	(NA)	19,695	14,505	2,247	(NA)	(NA)	(NA)	5	
736	xxx	736	xxx	1,115	(NA)	(NA)	...	...	...	...	6
1,228,134	1,228,134	xxx	(⁵)	350,112	171,559	89,275	35,164	26,286	4,316	4500	7	
859	859	xxx	(⁵)	10,812	6	(NA)	(NA)	(NA)	(NA)	(NA)	8	
60,825	xxx	60,825	xxx			...	...	...	...	...	9
2,929,185	2,929,185	xxx	(⁵)	727,295	7431,853	7205,784	7552,150				10	
1,504,626	1,504,626	xxx	(⁵)	(NA)	(NA)	(NA)	(NA)				11	
1,424,559	1,424,559	xxx	(⁵)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	12	
2,287,413	2,287,413	xxx	(⁵)	(NA)	(NA)	(NA)	(NA)				13	
1,659,831	1,375,954	96,338	187,539	8931,793	185,418	102,265	38,008	24,601	19,304	4,255	14	
1,251,905	1,251,905	xxx	(⁵)	694,027	117,697	71,397	26,963	24,601	19,304	4,255	15	
1,179	1,179	xxx	(⁵)	(¹⁰)	(¹⁰)	(NA)	...	...	...	...	16
(⁹)	xxx	(⁹)	xxx	1028,813	109,889	...	...	...			17
96,185	xxx	96,185	xxx	1078,761	1029	...	...	...	(NA)	(NA)	18
115,350	115,350	xxx	(⁵)	1127,096	1157,717	30,868	11,045				19	
278	252	26	(NA)		86	(NA)	(NA)	(NA)			20	
194,934	7,268	127	187,539	3,096		(NA)	(NA)	(NA)			21	
¹² 1,242,473	1,071,989	(NA)	(NA)	613,744	111,858	59,022	15,318	17,697	17,902	2,088	22	
193,880	142,345	10,347	41,188	125,930	60,410	27,558	29,223	11,477	4,488	922	23	
148,996	105,505	8,332	35,159	93,659	37,603	²² 22,438	26,911	11,477	4,488	922	24	
37,154	30,546	2,005	4,603	17,952	6,387	5,120	2,312				25	
7,730	6,294	10	1,426	14,319	16,420						26	
1,855	1,346	2	507	1,995	2,174				(NA)		27	
265,028	190,674	16,634	57,720			(NA)	(NA)	(NA)			28	
151,708	151,308	xxx	400	(NA)	(NA)				(¹³)	(NA)	29	
72,721	31,919	xxx	40,802						(¹³)		30	
40,599	7,447	16,634	16,518						(NA)		31	
¹² 735,740	538,864	¹² 37,856	(NA)	¹² 487,325	¹² 109,113	64,562	32,973	14,083	5,397	2,506	32	
220,435	155,700	13,212	51,523	135,397	28,094	16,392	8,748				33	
97,947	79,199	5,052	13,696	33,879	7,459	4,927	1,535	7,179	3,995	339	34	
	78,538	8,653		¹² 226,903	¹² 54,774			¹³ 7,174			35	
¹² 417,358	19,647	6,600		20,071				(NA)	1,402	2,167	36	
	6,746	355		973	1,643		(NA)	...	...	...	37
	199,034	3,984		70,102	17,143	18,278	(NA)	¹⁷ 3,730			38	
		(NA)	(NA)	(NA)							39	
(NA)	(NA)	13,030		(NA)		(NA)			(NA)		40	
(NA)	9,757	xxx		236,553	(NA)	(NA)					41	
(NA)	177,849	1,461		(NA)							42	
(NA)	11,561	10,620		(NA)							43	
		949		(NA)							44	
5,101	3,397	772	932	1,827	1,231	1,014			23		45	
34	32	93	27	20	33	45	(NA)		5		46	
4,637	2,967	757	913	1,775	1,231	1,014					47	
464	430	15	19	52	(¹⁹)	(¹⁹)		(NA)		(NA)	48	
118	71	26	21	28	9	(NA)					49	
(NA)	92,788	54,979		(NA)					(NA)		50	
(NA)	6	20		73							51	
(NA)	2,292	54		6,080							52	
(NA)	284,562	177,770	(NA)	100,591	(NA)	(NA)	62,500				53	
(NA)	(NA)	(NA)									54	
(NA)	615	37		(NA)			(NA)				55	
(NA)	57	129									56	

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 1.—COMPARATIVE STATISTICS FOR THE CRUDE PETROLEUM AND NATURAL GAS EXTRACTION INDUSTRIES

(For explanation of line captions and for statement on the minimum

Item	1954			
	Crude petroleum and natural gas extraction industries, total	Crude petroleum and Natural gas industries	Natural gas liquids industries	Oil and gas field contract services industries
Wells drilled and completed, except those drilled on contract for others:				
1 Number drilled, total.....	52,327	49,233	xxx	3,094
2 Drilled on contract for reporting companies.....	38,260	37,926	xxx	334
3 Drilled by reporting companies for own account.....	14,067	11,307	xxx	2,760
4 Footage of wells drilled.....1,000 ft..	210,801	199,987	xxx	10,814
5 Drilled on contract for reporting companies.....do....	158,430	157,232	xxx	1,198
6 Drilled by reporting companies for own account.....do....	52,371	42,755	xxx	9,616
7 Cost of drilling and equipping wells.....\$1,000..	2,306,947	2,230,859	xxx	76,088
Wells drilled and completed on contract for others:				
8 Number drilled.....	45,264	1,726	xxx	43,538
9 Footage drilled on contract.....1,000 ft..	171,391	5,432	xxx	165,959
10 Costs borne by drilling contractors in drilling and equipping.....\$1,000..	715,820	17,636	xxx	698,184

NA Not available.

xxx Not applicable.

¹Except for number of establishments, data for 2 nonproducing natural gasoline plants are included with those for the Crude petroleum and Natural gas industries.

²For 1902, data were also obtained from the operators of oil and gas field properties on the average number of employees at oil and gas field contract service operations performed for them. The total number of employees so reported was 12,143. For 1902, figures for average employment were reduced to a 300-day basis for establishments which operated for a shorter period.

³Excludes natural gas operations. Although natural gas was being used widely in 1880, it still was of relatively little commercial importance.

⁴These figures, except for quantity of crude petroleum, were reported as "oil, coal" and probably include some refining as well as the production of crude petroleum, or may represent primarily the recovery of oil from coal. The figure for quantity of crude petroleum produced is an estimate by the United States Geological Survey. That agency estimated the corresponding value of crude petroleum as \$4,800,000.

⁵Insofar as contractors also operated oil or gas wells in 1939, separate reports were obtained for such activities or the entire report was classified in the Crude petroleum and Natural gas industries.

⁶Represents the entire output of wells and natural gas liquids plants, including royalty interests and products produced and used for fuel, power, or other purposes at the same establishment. In 1954, Crude petroleum produced and used at the same establishment amounted to only 1,630 thousand barrels. All figures for Crude petroleum, Field condensate and drips, and Natural gas liquids for years prior to 1954 represent production. The figure for quantity of crude petroleum produced in 1954 represents shipments plus production for use at the same establishment for power, heat, or other purposes.

⁷For 1919, 1909, and 1889, represents the sum of gas sold and gas used by producers and excludes gas wasted at well locations. Net figures are shown which exclude 233,800 million cubic feet for 1919 and 127,948 million cubic feet for 1909 representing gas sold to other producers for resale and duplicated in the reported total gas sold by these industries. For 1902, it is not clear whether the figure represents only gas sold or includes also gas used by producers.

⁸For 1954, 1919, and 1909 contains duplication. For 1954 this duplication is due to the transfer of natural gas liquids for further processing. For 1919 and 1909 it is due to the transfer of gas for processing or resale. For all industries shown the value of net shipments for these years was: for 1954, \$9,283,983 thousand; for 1919, \$902,980 thousand; and for 1909, \$175,528 thousand. The value of net shipments of the natural gas liquids industries in 1954 was \$582,866 thousand. In general, figures for years prior to 1954 represent production.

IN THE UNITED STATES: 1954, 1939, 1919, 1909, 1902, 1889, 1880, 1870, and 1860—Continued

size of establishments included for each year, see INTRODUCTION)

1939				Crude petroleum, Natural gas, and Natural gas liquids industries						
Crude petroleum and natural gas extraction industries, total	Crude petroleum and Natural gas industries ¹	Natural gas liquids industries ¹	Oil and gas field contract services industries	1919	1909	1902 ²	1889	1880 ³	1870	1860 ⁴
22,560	22,560	xxx	(⁵)	(NA)	15,612	(²⁰)	8,383	3,837		
14,085	14,085	xxx	(⁵)							
8,475	8,475	xxx	(⁵)							
72,191	72,191	xxx	(⁵)							
43,174	43,174	xxx	(⁵)							
29,017	29,017	xxx	(⁵)	(NA)	(NA)	(NA)	(NA)	9,151	(NA)	(NA)
404,904	404,904	xxx	(⁵)							
12,729	407	xxx	12,322							
40,084	1,186	xxx	38,898							
98,752	2,409	xxx	96,343							

⁹Not reported for 1939 and probably very small.¹⁰Figures for natural gas liquids transferred for further processing represent the cost to the purchaser of gas transferred for processing or resale. Figures for natural gas liquids "Net shipments" include data for "Field condensate and drips."¹¹Includes the value of gas produced and used for fuel at the same establishment.¹²For 1954 and 1939, no data were obtained on the value of gas received for processing at natural gas liquids plants or on the value of residue gas sold or transferred. However, the estimated value (prior to processing) of natural gas liquids contained in such gas is included in the industry group totals in order that the figures for cost of minerals received for preparation and the figures for value added in mining may bear a reasonable relationship to other statistics shown. Such estimated values are not included in the costs shown for the Natural gas liquids industries and no value added figures are shown for these industries. For 1939, the total principal expenses also includes an estimated figure for cost of supplies, fuel, purchased electric energy, and subcontract work for the oil and gas field contract services industries. Such data were not collected for the year, but they are included in this industry group total and in the computation of value added in mining in order that these figures may bear a reasonable relationship to other statistics shown. For 1919 and 1909, includes the cost of gas purchased as a material or for resale.¹³Man-hour figures are not available. However, it was estimated in the 1880 census report that 6,955 men were employed in caring for wells and that 3,435 were employed in drilling wells.¹⁴For 1954, also includes cost of gas purchased for gas lift and repressuring, natural gas liquids received for further processing, and products purchased for resale; such items were probably only partly included for earlier years.¹⁵Represents cost of drive-pipe, casing, tubing, and torpedoes.¹⁶For 1954 and 1909, represents purchased fuel only. For most other years, includes the value of fuels produced and used at the same establishment for power or heat.¹⁷Represents "cost of drilling." It was indicated in the 1880 report that drilling was usually done by contractors.¹⁸Includes fuels produced and used for fuel at the same establishment and residue gas used at natural gas liquids plants as well as purchased fuels.¹⁹Less than one-half the unit of measure specified.²⁰The 1902 census report showed that 15,506 oil wells and dry holes were drilled during 1902 by the Crude petroleum industry, but did not show the number drilled by the Natural gas industry.

Table 2.—DETAILED STATISTICS FOR THE CRUDE PETROLEUM AND NATURAL GAS EXTRACTION

(For explanation of line

Item	Crude petroleum and natural gas extraction industries, total	Crude petroleum and Natural gas industries		
		Total	Crude petroleum industry	Natural gas industry
1 Number of operating companies.....	15,099	9,720	8,565	1,290
2 Number of establishments.....	17,585	11,508	10,101	1,407
3 Number of wells producing during December 1954, total.....	493,611	485,907	432,226	53,681
4 Oil wells.....	426,703	419,517	413,311	6,206
5 Gas wells.....	66,908	66,390	18,915	47,475
6 Number of natural gas liquids plants.....	582	xxx	xxx	xxx
7 Crude petroleum shipped.....1,000 barrels..	2,194,210	2,173,734	2,149,462	24,272
8 Field condensate and drips shipped.....do...	25,606	25,600	21,028	4,572
9 Natural gas liquids net shipments.....do...	252,067	xxx	xxx	xxx
10 Natural gas produced, total.....million cu. ft..	10,121,793	10,084,936	7,386,441	2,698,495
11 From oil wells.....do...	3,433,120	3,415,416	3,312,312	103,104
12 From gas wells.....do...	6,688,673	6,669,520	4,074,129	2,595,391
13 Natural gas shipped.....do...	8,013,828	7,978,179	5,469,887	2,508,292
14 Value of shipments, total ¹.....\$1,000..	9,341,539	7,070,097	6,642,452	427,645
15 Crude petroleum.....do...	6,074,969	6,019,084	5,950,789	68,295
16 Field condensate and drips.....do...	77,161	77,140	63,768	13,372
17 Natural gas liquids:				
18 Transferred for further processing.....do...	57,556	xxx	xxx	xxx
19 Net shipments.....do...	576,828	xxx	xxx	xxx
20 Natural gas.....do...	943,494	938,884	594,924	343,960
21 Other products and purchases for resale.....do...	55,739	276	241	35
22 Amount received or due for services.....do...	1,555,792	34,713	32,730	1,983
23 Value added in mining.....do...	27,673,694	6,129,213	5,741,256	387,957
24 Number of persons engaged, total.....	335,559	185,822	173,032	12,790
25 Production and development workers.....	235,483	109,792	101,542	8,250
26 All other employees.....	80,252	62,714	59,740	2,974
27 Proprietors and firm members.....	19,824	13,316	11,750	1,566
28 Performing manual labor.....	6,999	3,886	3,517	369
29 Man-hours worked by production and development workers, total.....1,000..	491,718	216,581	201,086	15,495
30 Operating and maintaining wells.....do...	158,615	156,906	146,213	10,693
31 Drilling wells and rig building.....do...	167,684	36,132	33,243	2,889
32 Exploration work (except drilling).....do...	39,444	15,655	15,149	506
33 Other work.....do...	125,975	7,888	6,481	1,407
34 Principal expenses designated below, total.....\$1,000..	24,493,399	3,054,030	2,874,614	179,416
35 Wages of production and development workers.....do...	976,595	459,955	430,497	29,458
36 Salaries of all other employees.....do...	485,848	375,785	360,449	15,336
37 Supplies.....do...	21,236,435	682,421	636,398	46,023
38 Products purchased for resale.....do...	37,000	...	...	...
39 Natural gas liquids received for further processing.....do...	57,556	xxx	xxx	xxx
40 Gas purchased for gas lift and repressuring.....do...	10,279	10,261	10,030	231
41 Fuel purchased.....do...	96,810	36,177	34,641	1,536
42 Electric energy purchased.....do...	35,017	30,624	30,104	520
43 Contract work.....do...	1,557,859	1,458,807	1,372,495	86,312
44 Purchased machinery installed.....do...	863,205	621,048	588,211	32,837
45 Capital expenditures, total.....do...	2,226,316	1,898,454	1,770,683	127,771
46 Development and exploration of mineral property.....do...	1,229,958	1,206,214	1,129,878	76,336
47 Other construction.....do...	158,822	98,229	86,856	11,373
48 New machinery and equipment.....do...	767,750	558,950	526,029	32,921
49 Used plant and equipment.....do...	69,786	35,061	27,920	7,141
50 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....1,000..	20,101	9,123	8,636	487
51 Per production worker.....	85	83	85	59
52 Prime movers.....1,000..	18,804	7,962	7,507	455
53 Electric motors driven by purchased energy.....do...	1,297	1,161	1,129	32
54 Horsepower rating of electric motors driven by energy generated at the establishment.....do...	400	96	95	1
55 Energy used.....million kwh equivalent..	285,096	141,655	136,494	5,161
56 Fuels produced and used at same establishment:				
57 Crude petroleum.....1,000 barrels..	664	664	664	...
58 Natural gas.....million cu. ft..	697,746	345,040	332,349	12,691
59 Fuels purchased:				
60 Coal.....1,000 short tons..	7	2	2	(4)
61 Fuel oils.....1,000 barrels..	3,931	1,542	1,506	36
62 Gas.....million cu. ft..	144,679	78,702	75,677	3,025
63 Other fuels.....\$1,000..	61,047	20,652	19,732	920
64 Electric energy purchased.....million kwh..	2,748	2,332	2,298	34
65 Electric energy generated and used.....do...	1,314	260	258	2
66 Water intake.....million gallons..	158,487	82,408	81,984	424
67 Per production worker.....do...	0.67	0.75	0.81	0.05

xxx Not applicable.

NA Not available.

¹See table 1, footnote 8.

INDUSTRIES IN THE UNITED STATES, BY INDUSTRY: 1954

captions, see INTRODUCTION)

Natural gas liquids industries			Oil and gas field contract services industries			
Total	Natural gasoline industry	Cycle condensate industry	Total	Drilling oil and gas wells industry	Building, repairing, and dismantling rigs and derricks industry	Oil and gas field contract services, n.e.c., industry
181	167	30	5,463	2,846	120	2,502
562	521	41	5,515	2,869	120	2,526
xxx	xxx	xxx	7,704	7,372	...	332
xxx	xxx	xxx	7,186	6,879	...	307
xxx	xxx	xxx	518	493	...	25
582	540	42	xxx	xxx	xxx	xxx
xxx	xxx	xxx	20,476	19,833	...	649
xxx	xxx	xxx	6	xxx	xxx	xxx
252,067	204,307	47,760	xxx	xxx	xxx	1,199
xxx	xxx	xxx	36,857	35,658	...	111
xxx	xxx	xxx	17,704	17,593	...	1,088
xxx	xxx	xxx	19,153	18,065	...	1,110
xxx	xxx	xxx	35,649	34,539	...	...
1640,422	1507,655	1132,767	1,631,020	972,745	11,657	646,618
xxx	xxx	xxx	55,885	54,177	...	1,729
xxx	xxx	xxx	21	...	...	...
57,556	57,556	...	xxx	xxx	xxx	xxx
576,828	444,426	132,402	xxx	xxx	xxx	xxx
xxx	xxx	xxx	4,610	4,528	...	82
1,460	5,673	365	54,003	4,616	165	49,222
4,578	...	...	1,516,501	909,424	11,492	595,585
(NA)	(NA)	(NA)	1,118,544	623,967	9,552	485,025
17,412	15,114	2,298	132,325	71,375	1,763	59,187
13,560	11,740	1,820	112,131	62,145	1,539	48,447
3,780	3,305	475	13,758	5,831	93	7,834
72	69	3	6,436	3,399	131	2,906
13	13	...	3,100	1,684	68	1,348
27,862	24,119	3,743	247,275	133,216	1,720	112,339
xxx	xxx	xxx	1,709	1,500	...	209
xxx	xxx	xxx	131,552	125,708	1,446	4,398
xxx	xxx	xxx	23,789	342	...	23,447
27,862	24,119	3,743	90,225	5,666	274	84,285
2228,384	2208,006	220,378	1,095,620	686,173	7,416	402,031
63,983	55,114	8,869	452,657	264,797	4,769	183,091
21,074	18,245	2,829	88,989	39,515	452	49,022
243,891	237,534	26,357	394,758	291,977	1,524	101,257
...	...	...	37,000	6,794	165	30,041
57,556	57,556	...	xxx	xxx	xxx	xxx
xxx	xxx	xxx	18	18	...	...
1,964	1,929	35	58,669	36,704	308	21,657
3,190	2,996	194	1,203	320	3	880
36,726	34,632	2,094	62,326	46,048	195	16,083
65,752	60,913	4,839	176,405	120,385	347	55,673
109,959	102,277	7,682	217,903	153,468	437	63,998
xxx	xxx	xxx	23,744	23,416	...	328
55,794	53,188	2,606	4,799	1,939	56	2,804
51,227	46,160	5,067	157,573	99,722	308	57,543
2,938	2,929	9	31,787	28,391	73	3,323
2,902	2,536	366	8,076	4,265	39	3,772
214	216	201	72	69	25	78
2,808	2,447	361	8,034	4,247	39	3,748
94	89	5	42	18	...	24
208	172	36	96	89	...	7
113,449	93,782	19,667	29,992	23,302	84	6,606
xxx	xxx	xxx	...	...	...	...
3352,296	3288,483	363,813	410	362	...	48
...	...	...	5	4	1	(4)
7	7	...	2,382	2,108	9	265
15,087	15,070	17	50,890	47,339	8	3,543
301	268	33	40,094	19,943	264	19,887
321	302	19	95	18	(4)	77
936	759	177	118	113	(4)	5
67,262	52,614	14,648	8,817	8,313	21	483
4.96	4.48	8.05	0.08	0.13	0.01	0.01

²See table 1, footnote 12.³Represents residue gas.⁴Less than one-half of the unit of measure specified.

MINERAL INDUSTRIES--INDUSTRY STATISTICS

Table 3.—NUMBER, FOOTAGE, AND COST OF DRILLING AND EQUIPPING WELLS DRILLED IN THE UNITED STATES, BY SOURCE OF INFORMATION: 1954

Item	All wells drilled as reported by operators, including allocated figures for payments to contractors					All wells drilled as reported by operators, excluding payments to contractors			Wells drilled on con- tract for others as reported by contrac- tors
	All wells			Wells drilled on contract	Wells drilled for own account	All wells	Wells drilled on contract	Wells drilled for own account	
	Total number, footage, or cost	Cost per well (\$1)	Cost per foot (\$1)						
Number of wells drilled, total ¹	52,327	xxx	xxx	38,260	14,067	52,327	38,260	14,067	45,264
Oil wells ²	28,879	xxx	xxx	21,567	7,312	28,879	21,567	7,312	27,447
Gas wells ²	3,885	xxx	xxx	2,923	962	3,885	2,923	962	3,103
Dry holes ³	16,422	xxx	xxx	11,556	4,866	16,422	11,556	4,866	13,270
Service wells ³	3,141	xxx	xxx	2,214	927	3,141	2,214	927	1,444
Footage drilled, total.....1,000 ft...	210,801	xxx	xxx	158,430	52,371	210,801	158,430	52,371	171,391
Oil wells.....do....	117,897	xxx	xxx	90,201	27,696	117,897	90,201	27,696	103,363
Gas wells.....do....	18,510	xxx	xxx	13,694	4,816	18,510	13,694	4,816	12,475
Dry holes.....do....	70,213	xxx	xxx	51,369	18,844	70,213	51,369	18,844	53,483
Service wells.....do....	4,181	xxx	xxx	3,166	1,015	4,181	3,166	1,015	2,070
Average footage drilled per well, all wells.....	4,029	xxx	xxx	4,141	3,723	4,029	4,141	3,723	3,786
Oil wells.....do....	4,082	xxx	xxx	4,182	3,788	4,082	4,182	3,788	3,766
Gas wells.....do....	4,764	xxx	xxx	4,685	5,006	4,764	4,685	5,006	4,020
Dry holes.....do....	4,276	xxx	xxx	4,445	3,873	4,276	4,445	3,873	4,030
Service wells.....do....	1,331	xxx	xxx	1,430	1,095	1,331	1,430	1,095	1,434
Costs designated below for drilling and equipping wells, total ⁴.....\$1,000 ⁵ ..	2,306,947	44,087	10.94	1,792,609	514,338	1,307,142	825,862	481,280	696,351
Oil wells.....do....	1,449,654	50,198	12.30	1,133,575	316,079	882,471	586,098	296,373	426,051
Gas wells.....do....	263,619	67,856	14.24	194,521	69,098	158,102	93,073	65,029	54,041
Dry holes.....do....	565,745	34,450	8.06	441,847	123,898	251,697	136,587	115,110	210,302
Service wells.....do....	27,929	8,892	6.68	22,666	5,263	14,872	10,104	4,768	5,957
Cost of drilling, total ⁶.....do....	1,691,645	32,328	8.02	1,323,601	368,044	702,346	366,995	335,351	689,037
Oil wells.....do....	946,882	32,788	8.03	750,160	196,722	387,299	210,019	177,280	420,353
Gas wells.....do....	194,128	49,969	10.49	143,195	50,933	90,510	43,573	46,937	53,066
Dry holes.....do....	530,899	32,328	7.56	414,040	116,859	217,793	109,696	108,097	209,690
Service wells.....do....	19,736	6,283	4.72	16,206	3,530	6,744	3,707	3,037	5,928
Cost of casing, total ⁷.....do....	351,245	6,713	1.67	266,191	85,054	344,683	259,857	84,826	4,494
Oil wells.....do....	267,151	9,251	2.27	201,868	65,283	263,011	197,872	65,139	3,110
Gas wells.....do....	47,962	12,345	2.59	35,311	12,651	46,485	33,891	12,594	748
Dry holes.....do....	31,299	1,906	0.45	25,175	6,124	30,419	24,320	6,099	607
Service wells.....do....	4,833	1,539	1.16	3,837	996	4,768	3,774	994	29
Cost of equipment for flowing and pumping and pro- duction derrick, total ⁸.....do....	264,057	5,046	1.25	202,817	61,240	260,113	199,010	61,103	2,820
Oil wells.....do....	235,621	8,159	2.00	181,547	54,074	232,161	178,207	53,954	2,588
Gas wells.....do....	21,529	5,542	1.16	16,015	5,514	21,107	15,609	5,498	227
Dry holes.....do....	3,547	216	0.05	2,632	915	3,485	2,571	914	5
Service wells.....do....	3,360	1,070	0.80	2,623	737	3,360	2,623	737	...
Man-hours worked by wage earners in drilling wells and rig building.....1,000..	167,684	xxx	xxx	(NA)	(NA)	36,132	(NA)	(NA)	131,552

NA Not available.

xxx Not applicable.

¹Represents wells drilled which were completed during 1954, wells completed in 1954 although begun in 1953, and wells drilled and abandoned before completion during 1954.

²For wells that produced both oil and gas, respondents were requested to classify them according to the more valuable total product. Respondents were requested to classify "distillate" wells as oil wells if the value of all liquids produced was greater than the value of gas produced; but otherwise to classify them as gas wells.

³Dry holes represent wells drilled and abandoned without commercial production during 1954. Service wells include gas-injection, water-injection, brine-disposal, and underground-storage wells. The distinction between dry holes and service wells was not made uniformly by all respondents; hence, the combined figures for dry holes and service wells are somewhat more significant than the separate figures for each class.

⁴Represents only the tangible costs specified below; respondents were asked to exclude taxes, interest on investment, overhead costs, etc. Operators reported \$999,805 thousand paid or due contractors for drilling and equipping wells. For columns 1 through 5, this amount was distributed among the component costs in direct proportion to the cost breakdowns reported by contractors.

⁵All figures are in thousands of dollars, except columns 2 and 3 which are in dollars.

⁶Represents the cost of labor, supplies, water, fuel, and power used in such operations as: moving on to location all equipment and supplies incidental to operations; excavating for and building derrick foundation; digging slush pits; erecting and wiring derricks; building loading and pipe racks; laying fuel and water lines; rigging up; drilling hole; making straight-hole tests or surveys; coring; well logging and core analysis; testing formations; mud conditioning; reaming; running casing, screen, and liner; cleaning out, bailing, and swabbing; fishing; repairing and maintaining rig and derrick; tearing down rig; dismantling derrick and racks; and moving equipment off location. It includes tool charges and rentals, but excludes the value of materials salvaged after use and the cost of the drilling derrick if it was left over well for production after completion.

⁷Includes the cost of delivering and installing equipment. Excludes the value of equipment that was salvaged and used again but includes the cost of salvaging.

⁸See footnote 7. Includes tubing, wellhead fittings, gas traps, flow tanks, etc., drilling derricks retained over well after completion, and special-production derricks.

Table 4.—SELECTED STATISTICS FOR THE CRUDE PETROLEUM AND NATURAL GAS EXTRACTION INDUSTRIES,
BY INDUSTRY GROUP, GEOGRAPHIC DIVISIONS, AND STATES: 1954

(For explanation of column captions, see INTRODUCTION)

Geographic division and State	All operations, total			Crude petroleum and Natural gas industries			Natural gas liquids industries			Oil and gas field con- tract services industries		
	Number of estab- lish- ments	Value of shipments (\$1,000)	Number of employees	Number of estab- lish- ments	Value of shipments (\$1,000)	Number of employees	Number of estab- lish- ments	Value of ship- ments (\$1,000)	Number of em- ployees	Number of estab- lish- ments	Value of shipments (\$1,000)	Number of em- ployees
United States, total.....	17,585	9,341,539	¹ 315,735	11,508	7,070,097	¹ 172,506	562	640,422	17,340	5,515	1,631,020	125,889
Middle Atlantic, total.....	1,412	100,720	10,289	1,168	77,379	7,707	10	405	37	234	22,936	2,545
New York.....	307	11,458	2,506	258	10,229	2,345	...	...	...	49	1,229	161
Pennsylvania.....	1,105	89,262	7,783	910	67,150	5,362	10	405	37	185	21,707	2,384
East North Central, total.....	2,019	334,141	17,992	1,473	259,086	12,380	13	13,180	304	533	61,875	5,308
Ohio.....	659	23,041	4,203	520	16,665	3,349	2	² 110	² 14	137	² 6,266	² 840
Indiana.....	329	30,687	1,724	250	26,188	1,238	...	...	...	79	4,499	486
Illinois.....	769	237,180	9,961	523	182,138	6,428	8	12,914	277	238	42,128	3,256
Michigan.....	262	43,233	2,104	180	34,095	1,365	3	² 235	² 31	79	² 8,903	² 708
West North Central, total.....	1,590	471,175	17,031	1,007	382,708	10,378	16	8,757	388	567	79,710	6,265
Iowa.....	3	(D)	(D)	1	...	...	...	...	...	2	(D)	(D)
Missouri.....	19	306	92	16	(D)	79	...	...	...	3	(D)	13
North Dakota.....	61	19,342	1,164	32	12,028	671	1	² 232	² 20	28	² 7,082	² 473
South Dakota.....	23	(D)	(D)	21	(D)	66	...	...	...	2	(D)	(D)
Nebraska.....	91	26,270	643	66	21,444	324	1	³ 1,052	³ 100	24	³ 3,774	³ 219
Kansas.....	1,393	424,461	15,014	871	348,952	9,238	14	² 8,220	² 359	508	² 67,289	² 5,417
South Atlantic, total.....	972	76,103	5,939	775	55,202	4,136	41	10,512	430	156	10,389	1,373
Maryland.....	10	(D)	60	7	(D)	28	...	...	...	3	(D)	32
Virginia.....	13	1,106	130	5	(D)	21	...	...	...	8	(D)	109
West Virginia.....	914	72,456	5,442	734	53,340	3,837	41	10,512	430	139	8,604	1,175
Georgia.....	10	196	17	7	...	4	...	...	...	3	196	13
Florida.....	25	(D)	290	22	(D)	246	...	...	...	3	(D)	44
East South Central, total.....	727	188,164	7,687	493	151,807	4,633	9	9,785	236	225	26,572	2,818
Kentucky.....	503	72,496	4,395	329	53,956	2,889	6	7,445	180	168	11,095	1,326
Tennessee.....	24	120	24	18	57	11	...	...	...	6	63	13
Alabama.....	35	4,850	243	28	3,136	104	...	...	...	7	1,714	139
Mississippi.....	165	110,698	3,025	118	94,658	1,629	3	2,340	56	44	13,700	1,340
West South Central, total.....	8,466	6,087,231	206,611	5,039	4,435,482	103,867	367	456,236	12,837	3,060	1,195,513	89,907
Arkansas.....	268	86,130	2,739	204	73,741	1,709	9	5,811	258	55	6,578	772
Louisiana.....	823	1,119,796	33,412	463	847,595	16,956	52	61,515	1,201	308	210,686	15,255
Oklahoma.....	2,389	715,451	37,505	1,535	523,338	22,046	75	42,539	2,384	779	149,574	13,075
Texas.....	4,986	4,165,854	132,955	2,837	2,990,808	63,156	231	346,371	8,994	1,918	828,675	60,805
Mountain, total.....	1,418	780,333	22,517	908	626,908	12,167	34	27,623	1,007	476	125,802	9,343
Montana.....	292	45,735	2,741	207	32,323	1,702	1	(⁴)	(⁴)	84	⁴ 13,412	⁴ 1,039
Idaho.....	1	...	(⁵)	1	...	(⁶)	...	...	...	...	...	...
Wyoming.....	370	271,842	7,168	214	223,629	4,181	10	5,667	297	146	42,546	2,690
Colorado.....	247	158,289	4,754	154	127,536	2,340	5	(⁴)	(⁴)	88	⁴ 30,753	⁴ 2,414
New Mexico.....	419	294,824	6,911	261	236,731	3,249	18	19,386	627	140	38,707	3,035
Arizona.....	17	(D)	² 23	15	...	(⁶)	...	...	...	2	...	(⁷)
Utah.....	56	9,064	755	42	...	⁵ 69	...	...	...	14	² 954	¹ 86
Nevada.....	16	(D)	165	14	6,689	⁶ 126	...	...	...	2	...	⁷ 62
Pacific, total.....	981	1,303,672	27,641	645	1,081,525	17,210	72	113,924	2,101	264	108,223	8,330
Washington.....	7	53	117	6	...	...	...	...	...	1	...	...
Oregon.....	6	...	3	4	...	116	...	...	...	2	53	4
California.....	968	1,303,619	27,521	635	1,081,525	17,094	72	113,924	2,101	261	108,170	8,326

D Withheld to avoid approximately disclosing figures for individual companies.

¹Figures for 28 central office employees in Connecticut, Iowa, Minnesota, and North Carolina are included only in total figures for the United States.²Figure for the Building, repairing, and dismantling rigs and derricks industry is included with figure for the Natural gas liquids industries.³Figure for the Oil and gas field contract services, n.e.c., industry is included with figure for the Natural gas liquids industries.⁴Figure for the Natural gas liquids industries is included with figure for the Oil and gas field contract services industries.⁵Figure for Idaho is included with figure for Arizona.⁶Figures for Idaho and Arizona are included with figures for Nevada.⁷Figure for Arizona is included with figure for Nevada.

CRUDE PETROLEUM AND NATURAL GAS EXTRACTION IN THE UNITED STATES: 1954

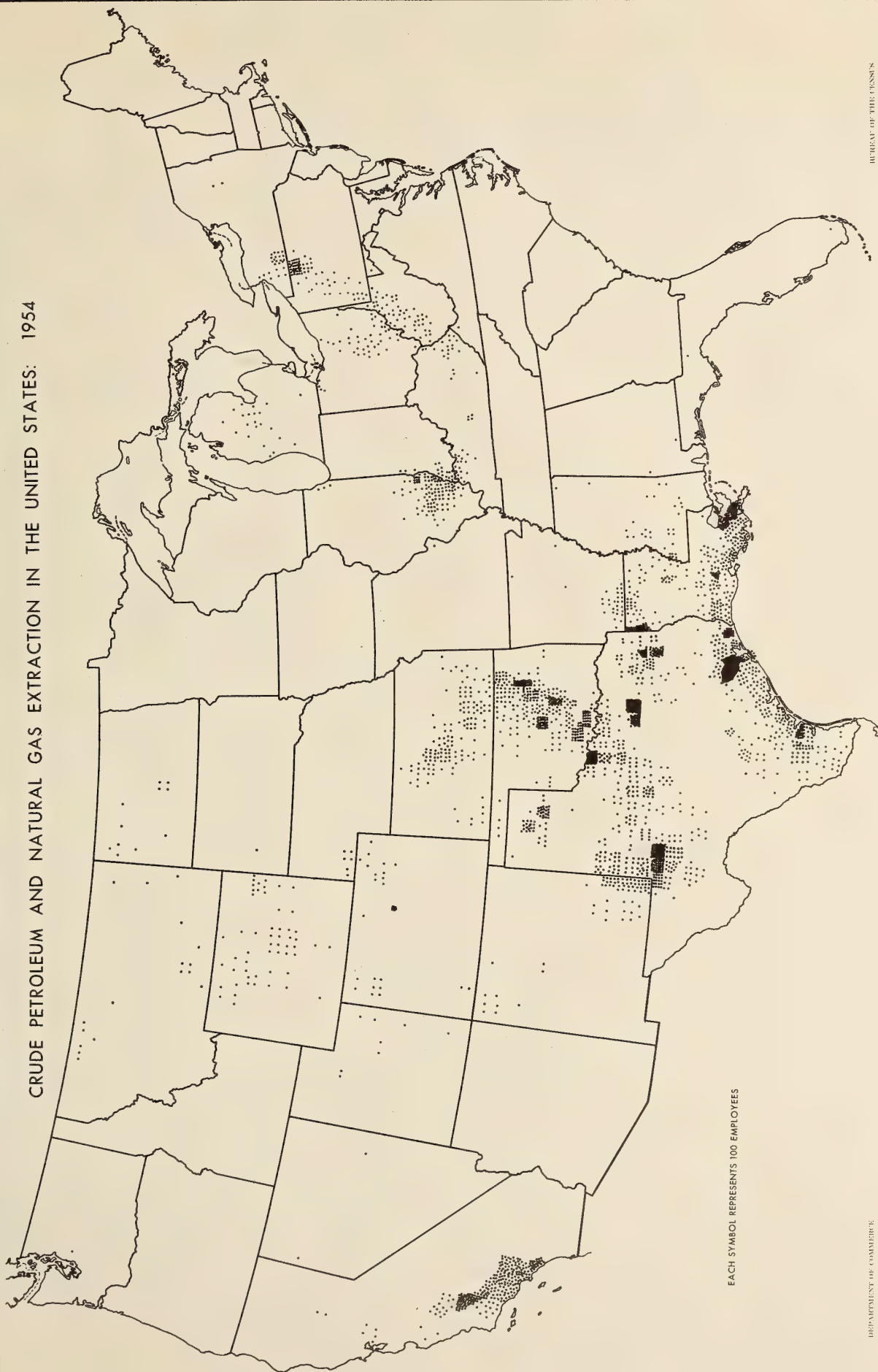


Table 5.—NUMBER OF CRUDE PETROLEUM AND NATURAL GAS EXTRACTION ESTABLISHMENTS CLASSIFIED BY EMPLOYMENT SIZE, BY INDUSTRY AND BY GEOGRAPHIC DIVISIONS AND STATES: 1954

Geographic division, State, and industry	Number of establishments, total	Number of establishments with an average of--										
		No em- ployees	1-4 em- ployees	5-9 em- ployees	10-19 em- ployees	20-49 em- ployees	50-99 em- ployees	100-249 em- ployees	250-499 em- ployees	500-999 em- ployees	1,000-2,499 em- ployees	2,500 em- ployees and over
United States, total.....	17,585	2,015	8,094	2,667	2,043	1,771	579	284	70	41	15	6
Crude petroleum and Natural gas.....	11,508	1,908	6,294	1,421	843	618	203	138	39	29	11	4
Natural gas liquids.....	562	6	166	72	131	201	73	12	1	...	...	...
Oil and gas field contract services:												
Drilling oil and gas wells.....	2,869	31	719	591	650	564	199	92	16	6	1	...
Building, repairing, and dis- mantling rigs and derricks.....	120	3	34	40	15	23	4	1	...	...	...	...
Oil and gas field contract services, n.e.c.....	2,526	67	981	543	404	365	100	41	14	6	3	2
Middle Atlantic, total.....	1,412	214	929	161	52	33	11	8	...	3	1	...
Crude petroleum and Natural gas.....	1,168	208	770	119	31	22	7	8	...	3	...	...
Natural gas liquids.....	10	...	16	4	...	...	...	...	...	...	...	...
Oil and gas field contract services:												
Drilling oil and gas wells.....	165	2	104	30	17	8	4	...	...	...	...	...
Building, repairing, and dis- mantling rigs and derricks.....	4	...	1	3	...	...	...	...	...	...	...	...
Oil and gas field contract services, n.e.c.....	65	4	48	5	4	3	...	...	...	...	1	...
New York, total.....	307	34	227	28	9	6	...	3	...	...	...	...
Crude petroleum and Natural gas.....	258	32	187	25	6	5	...	3	...	...	...	...
Oil and gas field contract services:												
Drilling oil and gas wells.....	33	...	26	3	3	1	...	...	...	...	...	...
Oil and gas field contract services, n.e.c.....	16	2	14	...	...	...	...	...	...	...	...	...
Pennsylvania, total.....	1,105	180	702	133	43	27	11	5	...	3	1	...
Crude petroleum and Natural gas.....	910	176	583	94	25	17	7	5	...	3	...	...
Natural gas liquids.....	10	...	16	4	...	...	...	...	...	...	...	...
Oil and gas field contract services:												
Drilling oil and gas wells.....	132	2	78	27	14	7	4	...	...	...	...	...
Building, repairing, and dis- mantling rigs and derricks.....	4	...	1	3	...	...	...	...	...	...	...	...
Oil and gas field contract services, n.e.c.....	49	2	34	5	4	3	...	...	...	...	1	...
East North Central, total.....	2,019	260	1,109	278	206	122	27	12	2	3	...	...
Crude petroleum and Natural gas.....	1,473	248	879	156	98	62	16	9	2	3	...	...
Natural gas liquids.....	13	...	14	2	2	3	2	...	...	...	...	...
Oil and gas field contract services:												
Drilling oil and gas wells.....	348	5	133	74	84	43	6	3	...	...	...	...
Building, repairing, and dis- mantling rigs and derricks.....	5	...	4	1	...	...	...	...	...	...	...	...
Oil and gas field contract services, n.e.c.....	180	7	89	45	22	14	3	...	...	...	...	...
Ohio, total.....	659	98	437	67	38	14	3	1	1	...	...	...
Crude petroleum and Natural gas.....	520	96	359	30	22	9	2	1	1	...	...	...
Natural gas liquids.....	2	...	11	1	...	...	...	...	...	...	...	...
Oil and gas field contract services:												
Drilling oil and gas wells.....	111	2	56	31	16	5	1	...	...	...	...	...
Building, repairing, and dis- mantling rigs and derricks.....	2	...	2	...	...	...	...	...	...	...	...	...
Oil and gas field contract services, n.e.c.....	24	...	19	5	...	...	...	...	...	...	...	...
Indiana, total.....	329	43	189	58	25	11	3	...	...	...	...	...
Crude petroleum and Natural gas.....	250	41	149	32	18	8	2	...	...	...	...	...
Oil and gas field contract services:												
Drilling oil and gas wells.....	54	...	26	19	7	2	...	...	...	...	...	...
Oil and gas field contract services, n.e.c.....	25	2	14	7	...	1	1	...	...	...	...	...
Illinois, total.....	769	68	363	115	111	81	19	8	1	3	...	...
Crude petroleum and Natural gas.....	523	65	291	70	42	34	11	6	1	3	...	...
Natural gas liquids.....	8	...	2	...	1	3	2	...	...	...	...	...
Oil and gas field contract services:												
Drilling oil and gas wells.....	137	2	32	15	50	32	4	2	...	...	...	...
Oil and gas field contract services, n.e.c.....	101	1	38	30	18	12	2	...	...	...	...	...
Michigan, total.....	262	51	120	38	32	16	2	3	...	...	...	...
Crude petroleum and Natural gas.....	180	46	80	24	16	11	1	2	...	...	...	...
Natural gas liquids.....	3	...	1	1	1	...	...	...	...	...	...	...
Oil and gas field contract services:												
Drilling oil and gas wells.....	46	1	19	9	11	4	1	1	...	...	...	...
Building, repairing, and dis- mantling rigs and derricks.....	3	...	2	1	...	...	...	...	...	...	...	...
Oil and gas field contract services, n.e.c.....	30	4	18	3	4	1	...	...	...	...	...	...

See footnote at end of table.

Table 5.—NUMBER OF CRUDE PETROLEUM AND NATURAL GAS EXTRACTION ESTABLISHMENTS CLASSIFIED BY EMPLOYMENT SIZE, BY INDUSTRY AND BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

Geographic division, State, and industry	Number of establishments, total	Number of establishments with an average of--										
		No em- ployees	1-4 em- ployees	5-9 em- ployees	10-19 em- ployees	20-49 em- ployees	50-99 em- ployees	100-249 em- ployees	250-499 em- ployees	500-999 em- ployees	1,000-2,499 em- ployees	2,500 em- ployees and over
West North Central, total.....	1,590	164	741	270	203	160	29	21	1	1	...	...
Crude petroleum and Natural gas.....	1,007	154	523	127	91	76	17	17	1	1	...	...
Natural gas liquids.....	16	...	...	1	7	7	1	...	...	...	...	...
Oil and gas field contract services:												
Drilling oil and gas wells.....	304	3	90	76	71	52	9	3	...	...	...	...
Building, repairing, and dis- mantling rigs and derricks.....	6	...	5	1	...	...	...	...	...	...	...	...
Oil and gas field contract services, n.e.c.....	257	7	123	65	34	25	2	1	...	...	...	...
Iowa, total.....	3	1	...	...	1	1	...	...	...	...	...	...
Crude petroleum and Natural gas.....	1	1	...	...	...	...	...	...	...	...	...	...
Oil and gas field contract services:												
Drilling oil and gas wells.....	2	...	...	...	1	1	...	...	...	...	...	...
Missouri, total.....	19	3	13	2	...	1	...	...	...	...	...	...
Crude petroleum and Natural gas.....	16	3	12	...	...	1	...	...	...	...	...	...
Oil and gas field contract services:												
Drilling oil and gas wells.....	1	...	...	1	...	...	...	...	...	...	...	...
Oil and gas field contract services, n.e.c.....	2	...	1	1	...	...	...	...	...	...	...	...
North Dakota, total.....	61	4	17	12	12	12	2	2	...	...	...	...
Crude petroleum and Natural gas.....	32	4	5	5	9	7	1	1	...	...	...	...
Natural gas liquids.....	1	...	...	...	1	...	...	...	...	...	...	...
Oil and gas field contract services:												
Drilling oil and gas wells.....	8	...	1	2	1	4	...	...	...	...	...	...
Building, repairing, and dis- mantling rigs and derricks.....	2	...	2	...	...	...	...	...	...	...	...	...
Oil and gas field contract services, n.e.c.....	18	...	9	5	1	1	1	1	...	...	...	...
South Dakota, total.....	23	16	2	3	...	2	...	...	...	...	...	...
Crude petroleum and Natural gas.....	21	16	1	2	...	2	...	...	...	...	...	...
Oil and gas field contract services:												
Drilling oil and gas wells.....	2	...	1	1	...	...	...	...	...	...	...	...
Nebraska, total.....	91	24	36	12	11	7	...	1	...	...	...	...
Crude petroleum and Natural gas.....	66	24	27	6	8	...	...	1	...	...	...	...
Natural gas liquids.....	1	...	...	...	...	1	...	...	...	...	...	...
Oil and gas field contract services:												
Drilling oil and gas wells.....	13	...	3	3	3	4	...	...	...	...	...	...
Oil and gas field contract services, n.e.c.....	11	...	6	3	...	2	...	...	...	...	...	...
Kansas, total.....	1,393	116	673	241	179	137	27	18	1	1	...	...
Crude petroleum and Natural gas.....	871	106	478	114	74	66	16	15	1	1	...	...
Natural gas liquids.....	14	...	...	1	6	6	1	...	...	...	...	...
Oil and gas field contract services:												
Drilling oil and gas wells.....	278	3	85	69	66	43	9	3	...	...	...	...
Building, repairing, and dis- mantling rigs and derricks.....	4	...	3	1	...	...	...	...	...	...	...	...
Oil and gas field contract services, n.e.c.....	226	7	107	56	33	22	1	...	...	...	...	...
South Atlantic, total.....	972	143	626	112	41	31	12	4	2	1	...	...
Crude petroleum and Natural gas.....	775	136	536	52	24	14	6	4	2	1	...	...
Natural gas liquids.....	41	2	122	8	3	4	2	...	...	...	...	...
Oil and gas field contract services:												
Drilling oil and gas wells.....	111	2	44	39	10	12	4	...	...	...	...	...
Building, repairing, and dis- mantling rigs and derricks.....	8	...	2	6	...	...	...	...	...	...	...	...
Oil and gas field contract services, n.e.c.....	37	3	22	7	4	1	...	...	...	...	...	...
Maryland, total.....	10	2	4	2	1	1	...	...	...	...	...	...
Crude petroleum and Natural gas.....	7	2	2	2	1	...	...	...	...	...	...	...
Oil and gas field contract services:												
Drilling oil and gas wells.....	3	...	2	...	...	1	...	...	...	...	...	...
Virginia, total.....	13	...	6	4	1	2	...	...	...	...	...	...
Crude petroleum and Natural gas.....	5	...	4	...	1	...	...	...	...	...	...	...
Oil and gas field contract services:												
Drilling oil and gas wells.....	7	...	1	4	...	2	...	...	...	...	...	...
Oil and gas field contract services, n.e.c.....	1	...	1	...	...	...	...	...	...	...	...	...

See footnote at end of table.

Table 5.—NUMBER OF CRUDE PETROLEUM AND NATURAL GAS EXTRACTION ESTABLISHMENTS CLASSIFIED BY EMPLOYMENT SIZE, BY INDUSTRY AND BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

Geographic division, State, and industry	Number of establishments, total	Number of establishments with an average of—										
		No em- ployees	1-4 em- ployees	5-9 em- ployees	10-19 em- ployees	20-49 em- ployees	50-99 em- ployees	100-249 em- ployees	250-499 em- ployees	500-999 em- ployees	1,000-2,499 em- ployees	2,500 em- ployees and over
South Atlantic—Continued												
West Virginia, total.....	914	123	611	103	36	23	11	4	2	1	...	...
Crude petroleum and Natural gas.....	734	119	525	47	21	10	5	4	2	1	...	...
Natural gas liquids.....	41	2	122	8	3	4	2	...	...	...	...	...
Oil and gas field contract services:												
Drilling oil and gas wells.....	97	...	41	35	9	8	4	...	...	...	...	...
Building, repairing, and dismantling rigs and derricks.....	8	...	2	6	...	...	...	...	...	...	...	...
Oil and gas field contract services, n.e.c.....	34	2	21	7	3	1	...	...	...	...	...	...
Georgia, total.....	10	8	1	...	1	...	...	...	...	...	...	...
Crude petroleum and Natural gas.....	7	6	1	...	...	...	...	...	...	...	...	...
Oil and gas field contract services:												
Drilling oil and gas wells.....	3	2	...	...	1	...	...	...	...	...	...	...
Florida, total.....	25	10	4	3	2	5	1	...	...	...	...	...
Crude petroleum and Natural gas.....	22	9	4	3	1	4	1	...	...	...	...	...
Oil and gas field contract services:												
Drilling oil and gas wells.....	1	...	...	...	...	1	...	...	...	...	...	...
Oil and gas field contract services, n.e.c.....	2	1	...	...	1	...	...	...	...	...	...	...
East South Central, total.....	727	109	339	112	77	62	18	8	1	1	...	...
Crude petroleum and Natural gas.....	493	100	245	59	40	33	11	3	1	1	...	...
Natural gas liquids.....	9	...	...	3	1	4	1	...	...	...	...	...
Oil and gas field contract services:												
Drilling oil and gas wells.....	169	6	69	39	32	17	3	3	...	...	...	...
Building, repairing, and dismantling rigs and derricks.....	3	...	1	1	...	1	...	...	...	...	...	...
Oil and gas field contract services, n.e.c.....	53	3	24	10	4	7	3	2	...	...	...	...
Kentucky, total.....	503	58	263	82	48	41	7	3	...	1	...	...
Crude petroleum and Natural gas.....	329	51	184	40	23	23	5	2	...	1	...	...
Natural gas liquids.....	6	...	...	2	...	3	1	...	...	...	...	...
Oil and gas field contract services:												
Drilling oil and gas wells.....	140	5	62	34	25	14	...	...	...	...	...	...
Oil and gas field contract services, n.e.c.....	28	2	17	6	...	1	1	1	...	...	...	...
Tennessee, total.....	24	14	9	1	...	...	...	...	...	...	...	...
Crude petroleum and Natural gas.....	18	13	4	1	...	...	...	...	...	...	...	...
Oil and gas field contract services:												
Drilling oil and gas wells.....	6	1	5	...	...	...	...	...	...	...	...	...
Alabama, total.....	35	15	10	3	5	1	...	1	...	...	...	...
Crude petroleum and Natural gas.....	28	14	7	2	4	1	...	...	...	...	...	...
Oil and gas field contract services:												
Drilling oil and gas wells.....	3	...	2	1	...	...	...	...	...	...	...	...
Oil and gas field contract services, n.e.c.....	4	1	1	...	1	...	...	1	...	...	...	...
Mississippi, total.....	165	22	57	26	24	20	11	4	1	...	...	...
Crude petroleum and Natural gas.....	118	22	50	16	13	9	6	1	1	...	...	...
Natural gas liquids.....	3	...	...	1	1	1	...	...	...	...	...	...
Oil and gas field contract services:												
Drilling oil and gas wells.....	20	...	...	4	7	3	3	3	...	...	...	...
Building, repairing, and dismantling rigs and derricks.....	3	...	1	1	...	1	...	...	...	...	...	...
Oil and gas field contract services, n.e.c.....	21	...	6	4	3	6	2	...	...	...	...	...
West South Central, total.....	8,466	769	3,410	1,355	1,204	1,095	369	171	49	28	11	5
Crude petroleum and Natural gas.....	5,039	728	2,622	695	451	322	101	66	26	17	8	3
Natural gas liquids.....	367	3	126	41	97	138	50	11	1	...	...	...
Oil and gas field contract services:												
Drilling oil and gas wells.....	1,466	10	218	285	377	364	136	61	9	5	1	...
Building, repairing, and dismantling rigs and derricks.....	79	...	16	25	15	19	4	...	...	...	...	...
Oil and gas field contract services, n.e.c.....	1,515	28	528	309	264	252	78	33	13	6	2	2
Arkansas, total.....	268	41	113	40	39	24	9	2	...	...	...	...
Crude petroleum and Natural gas.....	204	41	95	30	18	14	4	2	...	...	...	...
Natural gas liquids.....	9	...	...	...	6	1	2	...	...	...	...	...
Oil and gas field contract services:												
Drilling oil and gas wells.....	18	...	4	4	4	6	...	...	...	...	...	...
Building, repairing, and dismantling rigs and derricks.....	3	...	1	2	...	...	...	...	...	...	...	...
Oil and gas field contract services, n.e.c.....	34	...	13	4	11	3	3	...	...	...	...	...

See footnote at end of table.

Table 5.—NUMBER OF CRUDE PETROLEUM AND NATURAL GAS EXTRACTION ESTABLISHMENTS CLASSIFIED BY EMPLOYMENT SIZE, BY INDUSTRY AND BY GEOGRAPHIC DIVISIONS AND STATES: 1954--Continued

Geographic division, State, and industry	Number of establishments, total	Number of establishments with an average of--										
		No em- ployees	1-4 em- ployees	5-9 em- ployees	10-19 em- ployees	20-49 em- ployees	50-99 em- ployees	100-249 em- ployees	250-499 em- ployees	500-999 em- ployees	1,000-2,499 em- ployees	2,500 em- ployees and over
West South Central--Continued												
Louisiana, total.....	823	80	250	108	132	144	52	37	6	10	4	...
Crude petroleum and Natural gas.....	463	77	197	63	60	26	13	16	2	6	3	...
Natural gas liquids.....	52	...	15	8	19	16	3	1	...	...	...	...
Oil and gas field contract services:												
Drilling oil and gas wells.....	134	...	10	10	28	51	16	12	4	2	1	...
Building, repairing, and dismantling rigs and derricks.....	18	...	5	6	1	5	1	...	...	...	...	...
Oil and gas field contract services, n.e.c.....	156	3	33	21	24	46	19	8	...	2	...	...
Oklahoma, total.....	2,389	210	1,105	380	339	252	57	28	11	6	1	...
Crude petroleum and Natural gas.....	1,535	197	876	184	131	95	24	14	9	4	1	...
Natural gas liquids.....	75	...	5	13	23	25	7	2	...	...	...	...
Oil and gas field contract services:												
Drilling oil and gas wells.....	425	4	71	104	128	87	18	10	2	1	...	...
Building, repairing, and dismantling rigs and derricks.....	10	...	4	1	3	2	...	...	...	...	...	...
Oil and gas field contract services, n.e.c.....	344	9	149	78	54	43	8	2	...	1	...	...
Texas, total.....	4,986	438	1,942	827	694	675	251	104	32	12	6	5
Crude petroleum and Natural gas.....	2,837	413	1,454	418	242	187	60	34	15	7	4	3
Natural gas liquids.....	231	3	116	20	49	96	38	8	1	...	...	...
Oil and gas field contract services:												
Drilling oil and gas wells.....	889	6	133	167	217	220	102	39	3	2	...	...
Building, repairing, and dismantling rigs and derricks.....	48	...	6	16	11	12	3	...	...	...	...	...
Oil and gas field contract services, n.e.c.....	981	16	333	206	175	160	48	23	13	3	2	2
Mountain, total.....	1,418	212	567	228	145	152	77	30	6	1	...	...
Crude petroleum and Natural gas.....	908	193	412	125	69	51	37	18	3	...	...	...
Natural gas liquids.....	34	1	2	5	5	14	7	...	...	...	...	...
Oil and gas field contract services:												
Drilling oil and gas wells.....	207	3	47	34	38	46	24	11	3	1	...	...
Building, repairing, and dismantling rigs and derricks.....	7	3	1	1	...	2	...	...	...	...	...	...
Oil and gas field contract services, n.e.c.....	262	12	105	63	33	39	9	1	...	...	...	...
Montana, total.....	292	35	152	53	23	18	6	5	...	...	...	...
Crude petroleum and Natural gas.....	207	32	121	26	12	9	4	3	...	...	...	...
Natural gas liquids.....	1	...	...	1	...	...	...	...	...	...	...	...
Oil and gas field contract services:												
Drilling oil and gas wells.....	38	1	9	12	7	5	2	2	...	...	...	...
Building, repairing, and dismantling rigs and derricks.....	...	...	...	...	...	...	...	...	...	...	...	...
Oil and gas field contract services, n.e.c.....	46	2	22	14	4	4	...	...	...	...	...	...
Idaho, total.....	1	...	1	...	...	...	...	...	...	...	...	...
Crude petroleum and Natural gas.....	1	...	1	...	...	...	...	...	...	...	...	...
Wyoming, total.....	370	40	155	54	44	38	25	11	3	...	...	...
Crude petroleum and Natural gas.....	214	34	102	28	20	8	14	5	3	...	...	...
Natural gas liquids.....	10	1	...	2	3	1	3	...	...	...	...	...
Oil and gas field contract services:												
Drilling oil and gas wells.....	54	...	11	8	8	15	6	6	...	...	...	...
Building, repairing, and dismantling rigs and derricks.....	3	1	1	1	...	...	...	...	...	...	...	...
Oil and gas field contract services, n.e.c.....	89	4	41	15	13	14	2	...	...	...	...	...
Colorado, total.....	247	42	79	48	27	27	16	5	2	1	...	...
Crude petroleum and Natural gas.....	154	40	55	27	10	11	9	2	...	...	...	...
Natural gas liquids.....	5	...	2	2	...	...	1	...	...	...	...	...
Oil and gas field contract services:												
Drilling oil and gas wells.....	44	...	9	7	10	10	3	2	2	1	...	...
Oil and gas field contract services, n.e.c.....	44	2	13	12	7	6	3	1	...	...	...	...
New Mexico, total.....	419	64	159	63	40	57	26	9	1	...	...	...
Crude petroleum and Natural gas.....	261	57	119	37	19	14	7	8	...	...	...	...
Natural gas liquids.....	18	...	...	...	2	13	3	...	...	...	...	...
Oil and gas field contract services:												
Drilling oil and gas wells.....	60	2	12	6	11	15	12	1	1	...	...	...
Building, repairing, and dismantling rigs and derricks.....	3	2	...	...	...	1	...	...	...	...	...	...
Oil and gas field contract services, n.e.c.....	77	3	28	20	8	14	4	...	...	...	...	...

See footnote at end of table.

Table 5.—NUMBER OF CRUDE PETROLEUM AND NATURAL GAS EXTRACTION ESTABLISHMENTS CLASSIFIED BY EMPLOYMENT SIZE, BY INDUSTRY AND BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

Geographic division, State, and Industry	Number of establishments, total	Number of establishment with an average of--										
		No em- ployees	1-4 em- ployees	5-9 em- ployees	10-19 em- ployees	20-49 em- ployees	50-99 em- ployees	100-249 em- ployees	250-499 em- ployees	500-999 em- ployees	1,000-2,499 em- ployees	2,500 em- ployees and over
Mountain—Continued												
Arizona, total.....	17	11	4	1	1	...	...	...	...	...	...	...
Crude petroleum and Natural gas.....	15	11	3	1	...	...	...	...	...	...	...	...
Oil and gas field contract services:												
Drilling oil and gas wells.....	1	...	1	...	...	...	...	...	...	...	...	...
Oil and gas field contract services, n.e.c.....	1	...	...	...	1	...	...	...	...	...	...	...
Utah, total.....	56	12	13	9	9	9	4	...	...	...	...	...
Crude petroleum and Natural gas.....	42	11	8	6	7	7	3	...	...	...	...	...
Oil and gas field contract services:												
Drilling oil and gas wells.....	10	...	5	1	2	1	1	...	...	...	...	...
Building, repairing, and dismantling rigs and derricks.....	1	...	...	...	...	1	...	...	...	...	...	...
Oil and gas field contract services, n.e.c.....	3	1	...	2	...	...	...	...	...	...	...	...
Nevada, total.....	16	8	4	...	1	3	...	...	...	...	...	...
Crude petroleum and Natural gas.....	14	8	3	...	1	2	...	...	...	...	...	...
Oil and gas field contract services:												
Oil and gas field contract services, n.e.c.....	2	...	1	...	...	1	...	...	...	...	...	...
Pacific, total.....	981	144	373	151	115	116	36	30	9	3	3	1
Crude petroleum and Natural gas.....	645	141	307	88	39	38	8	13	4	3	3	1
Natural gas liquids.....	72	...	16	8	16	31	10	1	...	...	...	...
Oil and gas field contract services:												
Drilling oil and gas wells.....	99	...	14	14	21	22	13	11	4	...	...	...
Building, repairing, and dismantling rigs and derricks.....	8	...	4	2	...	1	...	1	...	...	...	...
Oil and gas field contract services, n.e.c.....	157	3	42	39	39	24	5	4	1	...	...	...
Washington and Oregon, total.....	13	6	4	...	1	2	...	...	...	...	...	...
Crude petroleum and Natural gas.....	10	4	3	...	1	2	...	...	...	...	...	...
Oil and gas field contract services:												
Oil and gas field contract services, n.e.c.....	3	2	1	...	...	...	...	...	...	...	...	...
California, total.....	968	138	369	151	114	114	36	30	9	3	3	1
Crude petroleum and Natural gas.....	635	137	304	88	38	36	8	13	4	3	3	1
Natural gas liquids.....	72	...	16	8	16	31	10	1	...	...	...	...
Oil and gas field contract services:												
Drilling oil and gas wells.....	99	...	14	14	21	22	13	11	4	...	...	...
Building, repairing, and dismantling rigs and derricks.....	8	...	4	2	...	1	...	1	...	...	...	...
Oil and gas field contract services, n.e.c.....	154	1	41	39	39	24	5	4	1	...	...	...

¹Includes establishments operated in conjunction with oil and gas wells and for which no separate employment figures are available.

Crude Petroleum and Natural Gas

This report shows 1954 Census of Mineral Industries statistics for establishments primarily engaged in operating oil and gas field properties. The two industries distinguished in the Standard Industrial Classification are:

Industry 1312, Crude Petroleum: Establishments primarily engaged in producing crude petroleum. Such oil field activities as exploration, drilling wells, equipping wells, and emulsion breaking operations are included. This industry also includes the mining of oil sands and oil shale and the recovery of oil therefrom; however, no such operations were reported for 1954.

Industry 1313, Natural Gas: Establishments primarily engaged in producing natural gas. Gas field activities such as exploration, drilling wells, and equipping wells are included.

For census purposes, a crude petroleum or natural gas establishment was defined as covering all oil and gas field activities of an operating company in an entire State. Separate reports were required for each State in which a company operated.

Production of natural gas liquids is classified in Industries 1314, Natural Gasoline, and 1315, Cycle Condensate; and the statistics for these industries are shown in report MI-13C. Establishments primarily engaged in performing oil and gas field services for others are classified in Group 133 and the statistics for them are shown in report MI-13D. Pipe line transportation of petroleum, gasoline, and other petroleum products is classified in Major Group 46, and pipe line transportation of natural gas in Industry 4922; such activities were not covered in the 1954 censuses. Establishments primarily engaged in petroleum refining and in the production of lubricating oils and greases are classified in Major Group 29, Products of Petroleum and Coal, and the reports for them are included in the Census of Manufactures publications.

Industry and Type of Operation Statistics.--Reports were obtained from the operators of oil and gas field properties, whether or not they owned the properties operated. However, only one report was required for all oil and gas field properties operated in each State. For this reason, a classification of such reports into Crude petroleum and Natural gas industries, on the basis of the principal value of products reported, yields statistics of limited significance. Moreover, there would be reservations about such a classification, even if the reports represented individual wells, since the same well usually produces both oil and gas. In the 1939 and 1919 censuses, no attempt was made to distinguish Crude petroleum and Natural gas industries, and this distinction is made for 1954 only in table 3. It should be noted that only 39 percent of all gas from gas wells was produced in the Natural gas industry in 1954, and only 26 percent of total gas production.

The total value of shipments of the Crude petroleum and Natural gas industries in 1954 amounted to \$7,070 million. Of this total, the crude petroleum industry accounted for \$6,642 million, including \$5,951 million for crude petroleum shipped and \$595 million for natural gas shipped. The natural gas industry accounted for \$428 million, including \$68 million for crude petroleum shipped and \$344 million for natural gas shipped.

For many purposes, a more useful classification of reports is by type of operation as shown in tables 4A and 4B and included in certain other tables of this report. This classification segregates reports representing oil wells only, both oil and gas wells, and gas wells only. (In the census, a well was

defined as an oil well if oil was the principal product as measured by value, and as a gas well if the value of gas shipped exceeded the value of oil shipped.) Such a classification was also provided in the 1939, 1919, and 1909 censuses. For 1954, the value of shipments of establishments operating oil wells only was \$1,451 million; both oil and gas wells, \$5,436 million; and gas wells only, \$183 million. Since the largest reports usually covered both oil and gas wells, this group accounted for about 76 percent of total crude petroleum production and for about 83 percent of total gas production.

Establishments in the crude petroleum and natural gas industries not only operated producing oil and gas wells, but also reported that they drilled for their own account about 11,000 wells during 1954, and that they drilled on contract for others about 1,700 wells. Total receipts for contract services performed for others by establishments in the crude petroleum and natural gas industries were \$35 million in 1954. Separate reports for operation of oil and gas field properties were sometimes furnished by contractors who also operated wells. But in many cases consolidated reports were accepted for establishments primarily performing contract services in a State, but also operating oil and gas field properties. Such reports were classified in the contract services industries. The total value of crude petroleum shipped in 1954 by such industries was \$56 million and the value of natural gas shipped was nearly \$5 million.

Table 4A provides detailed statistics not only by type of wells operated but also distinguishes establishments which performed contract work for others or for which contract services were performed by others. The value of shipments of establishments operated entirely by own employees and for own account was \$190 million, as compared with \$5,295 million for establishments making expenditures for contract work but performing no work for others, \$27 million for establishments having no contract expenditures but performing work for others, and \$1,558 million for establishments both engaging contract services and performing such services for others.

Fifty-one percent of all producing establishments were engaged only in operating and maintaining wells during 1954, having no drilling activities either by their own employees or on contract by others. Such establishments, however, accounted for only 5 percent of total value of shipments, 12 percent of total persons engaged, 3 percent of total principal expenses, 9 percent of total horsepower, and less than one percent of total capital expenditures. Statistics for such establishments are segregated in table 4A.

Drilling costs.--New capital expenditures in the Crude petroleum and Natural gas industries in 1954 amounted to \$1,863 million. This represented 18 percent of the total new capital expenditures for all manufacturing and mineral industries combined, as compared with value added in mining by these industries which amounted to less than 5 percent of the total value added in manufacturing and mining. Expenditures for drilling wells, however, exceeded this figure, amounting to \$2,307 million, of which \$2,231 million was by establishments classified in the Crude petroleum and Natural gas industries. Operators customarily do not capitalize the cost of drilling dry holes, for which the 1954 expenditures were \$566 million. Because of the magnitude of these expenditures, and their continuing necessity to maintain a domestic oil and gas production industry, detailed data on them were obtained in the 1954 census. Figures for the number, footage, and costs for drilling and equipping oil, gas, dry, and service wells were obtained separately by type of well. Comparable information had been obtained for these industries only once before, in the 1939 minerals census.

Operators reporting in the 1954 census drilled and completed in the United States during the year 52,327 wells, including 28,879 oil wells, 3,885 gas wells, 16,422 dry holes, and 3,141 service wells. The detailed statistics for footage and costs for drilling and completing these wells are shown in table 5B of this report. Table 5D shows separately data for offshore wells drilled, as well as production from offshore operations.

Operators reported that 38,260, or 73 percent, of all wells were drilled on contract, and 14,067 were drilled for own account, as compared with 62 percent drilled on contract as reported by operators for 1939. In the report MI-13D, Oil and Gas Field Contract Services, it is shown that contractors reported 45,264 wells drilled on contract. It seems likely that operators classified as "wells drilled for own account" some wells which were drilled to the producing sands by drilling contractors; then were completed for production either by the operator himself or by another contractor. Hence, it is probable that the figure reported by contractors is more accurate and also represents more complete coverage. It is estimated that over 80 percent of all wells were drilled primarily by contractors in 1954.

Size of Establishment.—Table 6A shows general statistics for establishments classified by size as measured by number of employees. For individual States, this represents approximately a tabulation by size of oil and gas field operations of each company in the specified State, since each establishment report usually represents all operations of a company in the specified State. It must be emphasized, however, that this measures size of company as an operator of oil and gas field properties, including properties operated by the company for the account of others. No information is available from the 1954 census to measure size of company as an owner of oil and gas properties. Moreover, separate reports were usually furnished by parent and subsidiary companies. If both operated in the same State they would be included separately in this tabulation.

At the request of other government agencies and business groups certain tabulations have been made for these industries which classify operating companies in terms of size as measured by value of shipments or by crude petroleum or natural gas produced. Although these statistics were not part of the Census Bureau original tabulation plans, they are shown in table 6B because their previous release has indicated a general public interest in them. For this table, all reports for a parent company and its subsidiaries have been combined but the figures still represent size of oil and gas field operations of each company, not size as measured in terms of properties owned.

County Statistics.—Each State report contained an inquiry requesting crude petroleum production for the year 1954, and employment on March 15, by county. This represented the first attempt in a census since 1902 to obtain any information on oil and gas field operations in each county. This county distribution was not completely reported. However, the distributed figures accounted for 98.3 percent of the total reported production in 1954 and for 98.6 percent of the reported production in Texas. The resulting figures for crude petroleum production by county are shown in table 5E of this report. The employment figures by county are shown only in table 3 of the State reports of this census, since in many cases it was necessary to

combine these figures with county data for other industries in order to preserve publication of county totals for employment in all mineral industries.

Coverage in the 1954 Census.—Seventeen percent of all establishments reported for the Crude petroleum and Natural gas industries in the 1954 census had no employees. These accounted for about 6 percent of all new capital expenditures, and probably a larger proportion of total contract expenditures since many such establishments drilled dry holes for which the costs would not be capitalized. Moreover, 55 percent of all establishments had from one to four employees, and these accounted for another 6 percent of all new capital expenditures. The large number of small operations and the prevalence of operation of properties or drilling for oil and gas under short term agreements and joint ventures in widely scattered areas make coverage of this industry by the usual census techniques particularly difficult.

Census figures cover all establishments with employees primarily engaged in operating oil and gas wells as indicated in Social Security records. These figures have been supplemented by data for establishments operated by proprietors with or without work supplied by contractors, insofar as it was possible to locate such operators from known lists from various sources. No field enumeration was made, but various other lists of operators were covered on a sample basis in supplemental surveys. The information obtained as a result of these surveys does not permit a reliable estimate of the extent of coverage of the census. All totals from other sources available for the industry represent figures developed from a relatively small sample of reports, primarily from large companies, or from secondary source reports, such as for pipe line runs and productive wells connected to pipe lines. Census figures have been compared with totals from various sources. The following table compares Census figures with the totals published by the Bureau of Mines for comparable items. The indicated under-coverage in productive wells is probably almost entirely in stripper wells in old fields. Figures for oil and gas wells have been combined in this table since the distinction between such wells may have been made somewhat differently in statistics from other sources. For similar reasons, the figures for dry holes and service wells have been combined.

Use of Short Forms.—Approximately 1,400 small crude petroleum and natural gas establishments, accounting for about 0.5 percent of the total value of shipments for these industries, were reported on abbreviated forms. For these establishments somewhat less detail was obtained on selected items, such as status of wells; drilling costs; cost of supplies, fuels, and electric energy; and horsepower of power equipment. Certain items were omitted entirely, such as water use. To obtain industry totals, estimates were prepared for detail omitted for such establishments on the basis of other information reported on the short forms and the data reported on long forms for similar operations.

Operations in Alaska.—Figures for operations in Alaska are not included in this report, and are shown only in report MI-150--MI-151, Alaska and Hawaii. For 1954, no producing wells were operated in Alaska. However, four companies reported expenditures during the year for exploration and drilling.

CENSUS FIGURES FOR NUMBER OF WELLS, CRUDE PETROLEUM PRODUCED, AND NATURAL GAS SHIPPED OR USED AS PERCENTS OF TOTALS
PUBLISHED BY THE BUREAU OF MINES: 1954

Geographic Division or State	Number of wells			Crude petroleum produced ³	Natural gas shipped or used ⁴
	Productive at end of 1954 ¹	Drilled and completed during 1954 ²			
		Oil and gas wells	Dry holes and service wells		
United States.....	91	97	97	96	95
Middle Atlantic.....	80	80	91	92	93
East North Central.....	84	97	95	92	94
West North Central.....	95	116	107	94	95
Kansas.....	94	111	111	93	95
South Atlantic.....	92	117	138	94	89
East South Central.....	88	122	117	96	100
West South Central.....	93	94	94	95	94
Louisiana.....	100	90	80	98	100
Oklahoma.....	91	94	100	92	99
Texas.....	94	95	94	94	92
Mountain.....	104	100	96	100	100
Pacific.....	114	101	99	100	100

¹Census figures represent wells producing in December plus wells shut in or idle during December.

²The totals for oil and gas wells and dry holes represent Oil and Gas Journal figures as reproduced by the Bureau of Mines. Figures for service wells drilled were taken directly from the Oil and Gas Journal.

³Census figures represent crude petroleum, field condensate, and drips shipped and crude petroleum produced and used at the same establishment.

⁴Represents natural gas produced less natural gas vented and wasted.

Table 1.—COMPARATIVE STATISTICS FOR THE CRUDE PETROLEUM AND
(For explanation of line captions and for statement on the minimum

Item	All operations		Oil-well operations only	
	1954	1939 ¹	1954	1939
1 Number of operating companies.....	9,720	8,061	7,082	5,842
2 Number of establishments.....	11,508	8,605	7,847	(NA)
3 Number of wells producing during December, total.....	485,907	347,645	170,651	198,623
4 Oil wells ²	419,517	300,179	170,651	198,623
5 Gas wells ²	66,390	47,466	...	...
6 Crude petroleum produced ³.....1,000 barrels..	2,175,364	1,228,134	509,491	782,077
7 Field condensate and drips shipped ³.....do...	25,600	859	426	232
8 Natural gas produced, total.....million cu. ft..	10,084,936	2,929,185	435,551	914,334
9 From oil wells ².....do...	3,415,416	1,504,626	435,551	914,334
10 From gas wells ².....do...	6,669,520	1,424,559	...	...
11 Natural gas shipped.....do...	7,978,179	2,287,413	305,968	615,733
12 Value of shipments, total ³.....\$1,000..	7,070,097	1,375,954	1,450,799	828,760
13 Crude petroleum.....do...	6,019,084	1,251,905	1,386,594	800,758
14 Field condensate and drips.....do...	77,140	1,179	1,284	434
15 Natural gas.....do...	938,884	115,350	49,587	21,892
16 Other products.....do...	276	252	65	117
17 Amount received or due for services.....do...	34,713	7,268	13,269	5,559
18 Value added in mining.....\$1,000..	6,129,213	1,071,989	1,138,685	648,173
19 Number of persons engaged, total.....	185,822	142,345	52,808	81,789
20 Production and development workers.....	109,792	105,505	32,970	61,076
21 All other employees.....	62,714	30,546	10,057	15,867
22 Proprietors and firm members.....	13,316	6,294	9,781	4,846
23 Performing manual labor.....	3,886	1,346	2,791	863
24 Man-hours worked by production and development workers, total.....1,000..	216,581	190,674	60,124	108,345
25 Operating and maintaining wells.....do...	156,906	151,308	45,069	85,601
26 Drilling wells and rig building.....do...	36,132	31,919	11,085	19,610
27 Exploration work (except drilling).....do...	15,655	7,447	2,123	3,134
28 Other work.....do...	7,888	7,447	1,847	3,134
29 Principal expenses designated below, total.....\$1,000..	3,054,030	538,864	722,101	310,066
30 Wages of production and development workers.....do...	459,955	155,700	112,037	87,677
31 Salaries of all other employees.....do...	375,785	79,199	55,212	41,802
32 Supplies.....do...	682,421	78,538	178,847	47,741
33 Gas purchased for gas lift and repressuring.....do...	10,261	2,023	2,023	47,741
34 Fuel ³.....do...	36,177	19,647	12,452	11,183
35 Electric energy purchased.....do...	30,624	6,746	10,410	4,765
36 Contract work.....do...	1,458,807	199,034	351,120	116,898
37 Purchased machinery installed.....do...	621,048	(NA)	148,915	(NA)
38 Capital expenditures, total.....do...	1,898,454	(NA)	391,653	(NA)
39 Development and exploration of mineral property.....do...	1,206,214	9,757	216,332	5,433
40 Other construction.....do...	98,229	11,038	11,038	5,433
41 New machinery and equipment.....do...	558,950	177,849	151,607	114,097
42 Used plant and equipment.....do...	35,061	11,561	12,676	7,747
43 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....1,000..	9,123	3,397	2,685	2,162
44 Per production worker.....	83	32	81	35
45 Prime movers.....1,000..	7,962	2,967	2,279	1,851
46 Electric motors driven by purchased energy.....do...	1,161	430	406	311
47 Horsepower rating of electric motors driven by energy generated at the establishment.....do...	96	71	28	46
48 Energy used.....million kwh equivalent..	141,655	92,788	28,368	57,413
49 Fuels produced and used for fuel at same establishment:				
50 Crude petroleum.....1,000 barrels..	664	(7)	287	(7)
Natural gas.....million cu. ft..	345,040	(7)	55,335	(7)
51 Fuels purchased:				
52 Coal.....1,000 short tons..	2	6	(6)	3
53 Fuel oils.....1,000 barrels..	1,542	72,292	608	71,298
54 Gas (natural and manufactured).....million cu. ft..	78,702	7284,562	23,032	7176,489
55 Other fuels.....\$1,000..	20,652	(NA)	7,678	(NA)
56 Electric energy purchased.....million kwh..	2,332	615	807	434
57 Electric energy generated and used.....do...	260	57	64	32
58 Wells drilled and completed except those drilled on contract for others:				
59 Number drilled, total.....	49,233	22,560	21,422	15,013
60 Drilled on contract for reporting companies.....	37,926	14,085	15,915	9,541
61 Drilled by reporting companies for own account.....	11,307	8,475	5,507	5,472
62 Footage of wells drilled, total.....1,000 ft..	199,987	72,191	67,547	44,849
63 Drilled on contract for reporting companies.....do...	157,232	43,174	52,442	26,586
64 Drilled by reporting companies for own account.....do...	42,755	29,017	15,105	18,263
65 Cost of drilling and equipping wells.....\$1,000..	2,230,859	404,904	585,639	248,101
66 Wells drilled and completed on contract for others:				
67 Number drilled.....	1,726	407	1,115	(NA)
68 Footage drilled on contract.....1,000 ft..	5,432	1,186	2,869	902
69 Costs borne by drilling contractor in drilling and equipping wells..\$1,000..	17,636	2,409	8,491	(NA)

NA Not available.

¹Except for number of establishments, includes data for 2 nonproducing plants in the natural gasoline industry.²For classification of wells see Table 5B, footnote 11. For 1939, the figures shown for gas from gas wells producing some oil are included with those for gas from oil wells.³For 1939, all figures for crude petroleum, field condensate and drips, and "other products" represent production. The quantity of crude petroleum for 1954 represents crude petroleum shipped plus crude petroleum produced and used at the same establishment for power, heat, or other purposes. Crude petroleum produced and used at the same establishment amounts only to 1,630 thousand barrels.

NATURAL GAS INDUSTRIES IN THE UNITED STATES: 1954 AND 1939

size of establishments included for each year, see INTRODUCTION)

Oil- and gas-well operations		Gas-well operations only		Nonproducing operations		
1954	1939	1954	1939	1954	1939	
1,650	1,254	991	1,053	499	307	1
1,966	(NA)	1,033	(NA)	662	(NA)	2
284,004	105,568	31,252	43,454	...	...	3
248,866	101,556	...	...	...	...	4
35,138	4,012	31,252	43,454	...	...	5
1,662,589	445,847	3,284	210	...	...	6
23,519	4	1,655	623	...	...	7
8,328,260	756,535	1,321,125	1,258,316	...	...	8
2,979,865	545,313	...	44,979	...	...	9
5,348,395	211,222	1,321,125	1,213,337	...	...	10
6,487,846	564,449	1,184,365	1,107,231	...	...	11
5,436,083	467,452	183,215	79,742	...	...	12
4,623,359	450,904	9,131	243	...	...	13
70,948	6	4,908	739	...	...	14
721,824	14,832	167,473	78,626	...	...	15
176	134	35	1	...	...	16
19,776	1,576	1,668	133	...	...	17
4,889,186	360,294	166,931	67,503	(4)	(4)	18
122,582	48,864	7,689	10,939	2,743	753	19
70,972	36,214	4,827	7,876	1,023	339	20
49,801	12,051	1,563	2,404	1,293	224	21
1,809	599	1,299	659	427	190	22
655	216	295	225	145	42	23
145,383	68,542	9,241	13,191	1,833	596	24
106,093	54,283	5,671	11,400	73	24	25
21,944	10,169	2,400	1,608	703	532	26
12,277	4,090	260	183	995	40	27
5,069		910		62		28
2,181,307	197,705	81,370	26,176	69,252	4,917	29
326,767	58,272	17,153	9,222	3,998	529	30
305,646	32,275	7,711	4,715	7,216	407	31
471,708	28,138	21,624	2,158	10,242	501	32
8,209		29		...		33
22,282	7,240	804	1,037	639	187	34
20,035	1,966	144	8	35	7	35
1,026,660	69,814	33,905	9,036	47,122	3,286	36
436,597		12,380		23,156		37
1,438,594	(NA)	52,602	(NA)	15,605	(NA)	38
947,213		31,401		11,268		39
80,803	3,951	5,194	204	1,194	169	40
391,532	56,512	13,171	6,489	2,640	751	41
19,046	3,308	2,836	424	503	82	42
6,130	1,144	217	81	91	10	43
86	32	45	10	89	29	44
5,382	1,026	211	80	90	10	45
748	118	6	1	1	(6)	46
68	25	(6)	(6)	(6)	(6)	47
112,348	32,725	642	2,351	297	299	48
377	(7)	...	(7)	...	...	49
288,754	(7)	951	(7)	...	...	50
2	2	(6)	1	...	(6)	51
885	7852	24	713	25	7129	52
54,657	7100,379	564	77,475	449	219	53
12,007	(NA)	497	(NA)	470	(NA)	54
1,512	180	10	1	3	...	55
194	25	2	(6)	...	...	56
24,917	5,382	1,718	1,731	1,176	434	57
19,831	3,178	1,205	1,064	975	302	58
5,086	2,204	513	667	201	132	59
120,611	21,609	6,831	4,536	4,998	1,197	60
95,943	12,806	4,534	2,958	4,313	824	61
24,668	8,803	2,297	1,578	685	373	62
1,516,392	134,863	62,870	17,321	65,958	4,619	63
549	(NA)	62	...	...	...	64
2,265	284	298	...	...	...	65
8,240	(NA)	905	...	...	...	66

⁴Value added is not shown since the cost of supplies, fuel, purchased electric energy, contract work, and purchased machinery installed exceeds capital expenditures.

⁵For 1954, represents purchased fuel only. For 1939, includes the value of fuels produced and used at the same establishment for power or heat.

⁶Less than one-half of the unit of measure specified.

⁷Figures for fuels produced and used for fuel at the establishment are included with those for purchased fuels.

Table 2.—COMPARATIVE STATISTICS FOR THE CRUDE PETROLEUM AND NATURAL GAS

(For explanation of column

	Geographic division, State, and year	Number of wells producing during December ¹		Production of—		Value of shipments ² (\$1,000)
		Oil	Gas	Crude petroleum ³ (1,000 barrels)	Natural gas (million cu. ft.)	
1	United States, total:					
2	1954.....	419,517	66,390	2,175,364	10,084,936	7,070,097
	1939.....	300,179	47,466	1,228,134	2,929,185	1,375,954
3	Middle Atlantic, total:					
4	1954.....	65,190	17,567	11,263	137,748	77,379
	1939 ⁷	62,009	18,204	17,958	123,090	57,176
5	New York:					
6	1954.....	15,518	1,223	2,581	3,890	10,229
	1939 ⁷	12,837	1,892	3,898	31,328	12,083
7	Pennsylvania:					
8	1954.....	49,672	16,344	8,682	133,858	67,150
	1939 ⁷	49,172	16,312	14,060	91,762	45,093
9	East North Central, total:					
10	1954.....	40,973	4,927	83,816	48,571	259,086
	1939.....	30,989	5,890	120,551	60,775	130,118
11	Ohio:					
12	1954.....	8,786	4,449	2,871	25,011	16,665
	1939.....	10,250	4,761	2,030	37,752	9,422
13	Indiana:					
14	1954.....	3,482	235	8,766	2,271	26,188
	1939.....	1,194	691	1,645	1,331	1,694
15	Illinois:					
16	1954.....	24,882	14	61,031	10,846	182,138
	1939.....	16,935	46	93,594	8,980	96,618
17	Michigan:					
18	1954.....	3,823	229	11,148	10,443	34,095
	1939.....	2,610	392	23,282	12,712	22,384
19	West North Central: ⁸					
20	1954.....	34,118	4,264	121,260	401,172	382,708
	1939.....	18,619	1,751	57,351	84,358	63,078
21	Missouri:					
22	1954.....	99	2	(D)	(D)	(D)
	1939 ⁹	64	68	26	398	59
23	Kansas:					
24	1954.....	33,090	4,188	108,064	391,578	348,952
	1939.....	18,555	1,683	57,325	83,960	63,019
25	South Atlantic: ¹⁰					
26	1954.....	9,014	14,169	3,154	172,447	55,202
	1939.....	14,017	12,120	3,251	154,990	23,020
27	West Virginia:					
28	1954.....	8,998	14,012	(D)	169,617	53,340
	1939.....	14,017	12,120	3,251	154,990	23,020
29	East South Central, total:					
30	1954.....	14,279	4,294	45,657	273,871	151,807
	1939 ¹¹	7,840	2,116	4,355	55,082	10,145
31	Kentucky:					
32	1954.....	12,555	4,055	11,885	73,242	53,956
	1939 ¹²	7,793	2,075	4,209	40,628	9,388
33	Tennessee:					
34	1954.....	24	20	13	94	57
	1939 ¹²	38	3	44	32	45
35	Alabama:					
36	1954.....	101	...	1,589	96	3,136
	1939 ¹¹.....	...	...	...	...	...
37	Mississippi:					
38	1954.....	1,599	219	32,170	200,439	94,658
	1939.....	9	38	102	14,422	712
39	West South Central, total:					
40	1954.....	206,231	17,387	1,330,420	7,613,124	4,435,482
	1939.....	142,890	6,578	733,699	1,875,786	780,585
41	Arkansas:					
42	1954.....	3,405	224	26,713	49,365	73,741
	1939.....	2,809	178	20,915	19,464	17,020
43	Louisiana:					
44	1954.....	13,561	3,770	230,505	1,658,951	847,595
	1939.....	5,046	1,483	92,057	378,366	106,664
45	Oklahoma:					
46	1954.....	54,630	3,370	169,269	782,388	523,338
	1939.....	48,314	2,070	153,144	294,124	164,702
47	Texas:					
48	1954.....	134,635	10,023	903,933	5,122,420	2,990,808
	1939.....	86,721	2,847	467,583	1,183,832	492,199

See footnotes at end of table.

INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954 AND 1939

captions, see INTRODUCTION)

Number of employees		Designated principal expenses (\$1,000)						Aggregate horsepower rating of power equipment (1,000)	Wells drilled and completed		
Production and development workers	All other employees	Wages of production and development workers	Salaries of all other employees	Supplies	Fuel ⁴	Purchased electric energy	Contract work		Number	Footage (1,000 ft.)	
109,792 105,505	⁵ 62,714 ⁶ 30,546	459,955 155,700	⁵ 375,785 ⁶ 79,199	692,682 78,538	36,177 19,647	30,624 6,746	1,458,807 199,034	9,123 3,397	49,233 22,560	199,987 72,191	1 2
5,638 7,668	2,069 1,692	17,957 9,791	11,711 4,441	9,488 2,524	1,537 2,054	,616 211	22,643 5,169	370 204	1,361 2,372	3,279 4,072	3 4
1,027 1,358	1,318 303	3,276 1,723	8,417 892	2,803 538	367 426	228 20	1,014 1,271	65 33	409 639	565 1,025	5 6
4,611 6,308	751 1,386	14,681 8,067	3,294 3,545	6,685 1,983	1,170 1,628	1,388 191	21,629 3,860	305 171	952 1,733	2,714 3,047	7 8
8,830 9,590	3,550 2,506	32,058 13,262	18,525 5,170	27,338 5,281	2,361 1,341	2,762 185	53,198 27,540	570 213	5,178 4,948	12,070 10,054	9 10
1,614 1,686	1,735 727	3,811 1,959	9,222 1,429	3,079 438	149 301	67 ...	5,872 896	81 61	908 416	2,041 904	11 12
807 432	431 155	2,426 488	2,257 365	3,243 160	323 52	306 4	5,366 1,205	55 9	733 241	1,392 442	13 14
5,250 5,347	1,178 1,119	20,828 8,054	6,002 2,359	15,771 3,639	1,550 498	2,232 148	34,489 22,114	330 96	3,045 3,101	7,107 6,383	15 16
1,159 2,125	206 505	4,993 2,761	1,044 1,017	5,245 1,044	339 490	157 33	7,471 3,325	104 47	492 1,190	1,530 2,325	17 18
8,042 6,182	2,336 1,706	31,250 7,944	12,339 4,068	40,801 3,601	6,940 692	3,552 556	86,963 12,450	698 268	5,656 1,637	18,781 4,645	19 20
15 15	64 584	39 20	440 1,501	77 2	13 3	2 1	293 106	1 1	26 60	39 76	21 22
7,374 6,167	1,864 1,122	28,129 7,924	9,706 2,567	32,386 3,599	6,013 689	3,471 555	59,714 12,344	633 267	4,916 1,577	14,459 4,569	23 24
3,486 5,296	650 711	9,808 6,049	2,994 1,357	6,829 864	285 399	79 13	10,375 2,018	201 101	616 426	1,946 1,173	25 26
3,368 5,296	469 711	9,353 6,049	1,953 1,357	5,468 864	257 399	78 13	7,221 2,018	192 101	543 426	1,617 1,173	27 28
3,748 1,534	885 200	12,848 1,397	4,664 423	17,540 600	1,067 182	659 ...	29,750 1,539	252 25	2,029 359	5,599 651	29 30
2,604 1,428	285 151	7,506 1,249	1,176 330	6,647 473	431 107	410 ...	9,788 926	120 23	1,600 320	2,615 496	31 32
10 27	1 5	22 22	5 6	23 4	3 1	6 ...	61 18	... (18)	13 7	23 9	33 34
77 ...	27 ...	318 ...	153 ...	546 4	14 ...	42 ...	1,697 57	5 ...	29 ...	161 ...	35 36
1,057 79	572 44	5,002 126	3,330 87	10,324 119	619 74	201 ...	18,204 538	127 2	387 32	2,800 146	37 38
61,942 56,731	41,925 18,300	270,139 84,486	254,276 49,498	442,944 47,939	17,857 10,741	14,398 3,144	952,161 119,248	4,933 1,798	28,169 10,995	126,560 43,163	39 40
1,220 1,732	489 184	4,673 2,676	2,762 469	7,985 1,732	409 477	493 81	10,226 5,104	113 65	495 194	2,063 1,261	41 42
11,628 7,996	5,328 1,617	56,938 13,036	32,577 4,172	125,199 9,237	3,761 2,711	1,009 228	244,573 26,518	926 218	3,079 1,111	22,484 6,223	43 44
13,431 16,128	8,615 5,906	51,707 22,135	50,196 16,075	59,595 11,124	3,360 2,441	3,368 1,081	144,192 13,342	889 651	7,962 1,795	24,291 4,291	45 46
35,663 30,875	27,493 10,593	156,821 46,639	168,741 28,782	250,165 25,846	10,327 5,112	9,528 1,754	553,170 74,284	3,005 864	16,633 7,895	77,722 31,389	47 48

Table 2.—COMPARATIVE STATISTICS FOR THE CRUDE PETROLEUM AND NATURAL GAS

(For explanation of column

	Geographic division, State, and year	Number of wells producing during December ¹		Production of		Value of shipments ² ((\$1,000))
		Oil	Gas	Crude petroleum ³ (1,000 barrels)	Natural gas (million cu. ft.)	
1	Mountain:					
2	1954 ¹³	17,893	3,206	223,836	676,406	626,908
	1939 ¹⁴	7,277	688	67,065	181,284	61,408
3	Montana:					
4	1954.....	3,301	1,096	13,784	¹⁵ 30,261	32,323
	1939.....	1,637	430	5,844	26,686	6,839
5	Wyoming:					
6	1954.....	5,627	162	90,159	¹⁵ 110,290	223,629
	1939.....	2,562	111	22,269	40,245	20,876
7	Colorado:					
8	1954.....	1,593	125	44,505	66,280	127,536
	1939.....	201	22	1,376	2,613	1,391
9	New Mexico:					
10	1954.....	7,300	1,798	73,506	453,099	236,731
	1939 ¹⁶	2,876	105	37,575	105,863	32,071
11	Utah:					
12	1954.....	71	25	(D)	16,694	(D)
	1939 ¹⁶	1	20	1	5,877	231
13	Pacific, total:					
14	1954.....	31,819	576	355,958	761,597	1,081,525
	1939 ¹⁶	16,538	119	223,904	393,820	250,424
15	California:					
16	1954.....	31,819	576	355,958	761,597	1,081,525
	1939.....	16,538	119	223,904	393,820	250,424
17	Washington and Oregon:					
18	1954.....	...	...	...	...	...
	1939 ¹⁷.....	...	...	...	...	(NA)

D Withheld to avoid approximately disclosing figures for individual companies.

NA Not available.

¹For classification of wells, see table 5B, footnote 11.²See table 1, footnote 3.³For 1954, represents crude petroleum shipped plus crude petroleum produced and used at the same establishment for fuel or other purposes.⁴See table 1, footnote 5.⁵Includes data for 28 salaried employees, paid \$176 thousand, at central offices in Connecticut, Minnesota, Iowa, and North Carolina.⁶Includes data for 30 salaried employees paid \$45 thousand, at central offices in Rhode Island, New Jersey, Minnesota, Iowa, Nebraska, Maryland, Florida, and Oregon.⁷Figures for number of employees and designated principal expenses for Middle Atlantic include data for 4 nonproducing operations in New York and 1 in Pennsylvania for which separate State figures for these items are not available.⁸For 1954, represents figures for Iowa, Missouri, North Dakota, South Dakota, Nebraska, and Kansas. For 1939, represents figures for Iowa, Missouri, and Kansas, and number and footage of wells drilled in Nebraska only; figures for North Dakota, Nebraska (except number and footage drilled), and South Dakota are included with those for Utah.

INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954 AND 1939—Continued
captions, see INTRODUCTION)

Number of employees		Designated principal expenses (\$1,000)						Aggregate horsepower rating of power equipment (1,000)	Wells drilled and completed		
Production and development workers	All other employees	Wages of production and development workers	Salaries of all other employees	Supplies	Fuel ⁴	Purchased electric energy	Contract work		Number	Footage (1,000 ft.)	
7,006	5,161	32,122	30,028	73,268	3,012	1,668	175,902	681	3,888	20,507	1
3,258	1,000	5,339	2,101	2,388	588	180	11,256	85	837	2,933	2
878	824	3,820	4,571	6,102	411	176	19,964	109	347	1,474	3
634	212	909	303	357	134	21	451	20	143	321	4
2,537	1,644	11,680	9,831	19,659	1,157	865	50,352	232	1,084	5,867	5
1,044	342	1,767	701	450	143	138	3,017	28	98	375	6
939	1,401	4,486	8,511	11,887	428	172	33,870	120	1,275	6,797	7
115	147	182	421	63	28	2	304	6	18	46	8
2,255	994	10,232	5,531	30,250	656	452	60,883	187	1,085	5,915	9
1,435	265	2,447	632	1,502	281	18	7,434	30	578	2,191	10
315	254	1,578	1,385	3,912	336	3	7,357	24	78	339	11
30	34	34	44	17	2	1	50	1	...	...	12
11,100	6,110	53,773	41,072	74,474	3,118	5,890	127,815	1,418	2,336	11,245	13
15,246	4,401	27,432	12,096	15,341	3,650	2,457	19,814	703	986	5,500	14
11,091	6,003	53,728	40,396	74,442	3,116	5,890	127,302	1,417	2,330	11,222	15
15,246	4,401	27,432	12,096	15,341	3,650	2,457	19,814	703	986	5,500	16
9	107	45	676	32	2	...	513	1	6	23	17
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	18

⁹Includes figures for one nonproducing operation in Iowa and for number and footage of wells drilled in Nebraska.

¹⁰For 1954, represents figures for Maryland, Virginia, West Virginia, Georgia, and Florida. For 1939, represents West Virginia only; figures for one nonproducing operation in Florida are included with those for Alabama.

¹¹Includes figures for one nonproducing operation in Florida.

¹²Figures for number of employees, designated principal expenses, and footage of wells drilled at nonproducing operations in Tennessee are included with those of Kentucky.

¹³In addition to the States shown includes figures for Idaho, Arizona, and Nevada.

¹⁴In addition to Mountain States, includes figures for North Dakota, South Dakota, Nebraska, and Washington.

¹⁵Includes production in the oil and gas field contract services industries amounting to less than 1 percent of the total shown.

¹⁶Figures for number of employees and designated principal expenses for one nonproducing operation in New Mexico and for all operations in North Dakota, South Dakota, Nebraska, and Washington are included with those for Utah.

¹⁷See footnote 16. No operations were reported for Oregon.

¹⁸Less than one-half of the unit of measure specified.

Table 3.—DETAILED STATISTICS FOR THE CRUDE PETROLEUM AND NATURAL GAS INDUSTRIES IN THE UNITED STATES BY GEOGRAPHIC DIVISIONS,
(For explanation of line captions,

Item	United States		
	Total	Crude petroleum industry	Natural gas industry
1 Number of operating companies.....	9,720	8,565	1,290
2 Number of establishments.....	11,508	10,101	1,407
3 Number of wells producing during December 1954, total.....	485,907	432,226	53,681
4 Oil wells ¹⁴	419,517	413,311	6,206
5 Gas wells ¹⁴	66,390	18,915	47,475
6 Crude petroleum shipped.....1,000 barrels..	2,173,734	2,149,462	24,272
7 Field condensate and drips shipped.....do....	25,600	21,028	4,572
8 Natural gas produced, total.....million cu.ft..	10,084,936	7,386,441	2,698,495
9 From oil wells ¹⁴.....do....	3,415,416	3,312,312	103,104
10 From gas wells ¹⁴.....do....	6,669,520	4,074,129	2,595,391
11 Natural gas shipped.....do....	7,978,179	5,469,887	2,508,292
12 Value of shipments, total.....\$1,000..	7,070,097	6,642,452	427,645
13 Crude petroleum.....do....	6,019,084	5,950,789	68,295
14 Field condensate and drips.....do....	77,140	63,768	13,372
15 Natural gas.....do....	938,884	594,924	343,960
16 Other products and purchases for resale.....do....	276	241	35
17 Amount received or due for services.....do....	34,713	32,730	1,983
18 Value added in mining.....do....	6,129,213	5,741,256	387,957
19 Number of persons engaged, total.....	20185,822	20173,032	12,790
20 Production and development workers.....	109,792	101,542	8,250
21 All other employees.....	2062,714	2059,740	2,974
22 Proprietors and firm members.....	13,316	11,750	1,566
23 Performing manual labor.....	3,886	3,517	369
24 Man-hours worked by production and development workers, total.....1,000..	216,581	201,086	15,495
25 Operating and maintaining wells.....do....	156,906	146,213	10,693
26 Drilling wells and rig building.....do....	36,132	33,243	2,889
27 Exploration work (except drilling).....do....	15,655	15,149	506
28 Other work.....do....	7,888	6,481	1,407
29 Principal expenses designated below, total.....\$1,000..	203,054,030	202,874,614	179,416
30 Wages of production and development workers.....do....	459,955	430,497	29,458
31 Salaries of all other employees.....do....	20375,785	20360,449	15,336
32 Supplies.....do....	682,421	636,398	46,023
33 Gas purchased for gas lift and repressuring.....do....	10,261	10,030	231
34 Fuel purchased.....do....	36,177	34,641	1,536
35 Electric energy purchased.....do....	30,624	30,104	520
36 Contract work.....do....	1,458,807	1,372,495	86,312
37 Purchased machinery installed.....do....	621,048	588,211	32,837
38 Capital expenditures, total.....do....	1,898,454	1,770,683	127,771
39 Development and exploration of mineral property.....do....	1,206,214	1,129,878	76,336
40 Other construction.....do....	98,229	86,856	11,373
41 New machinery and equipment.....do....	558,950	526,029	32,921
42 Used plant and equipment.....do....	35,061	27,920	7,141
43 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....1,000..	9,123	8,636	487
44 Per production worker.....	83	85	59
45 Prime movers.....1,000..	7,962	7,507	455
46 Electric motors driven by purchased energy.....do....	1,161	1,129	32
47 Horsepower rating of electric motors driven by energy generated at the establishment.....do....	96	95	1
48 Energy used.....million kwh equivalent..	141,655	136,494	5,161
49 Produced and used for fuel at same establishment:			
50 Crude petroleum.....1,000 barrels..	664	664	...
51 Natural gas.....million cu.ft..	345,040	332,349	12,691
52 Fuels purchased:			
53 Coal.....1,000 short tons..	2	2	(15)
54 Fuel oils.....1,000 barrels..	1,542	1,506	36
55 Gas (natural and manufactured).....million cu.ft..	78,702	75,677	3,025
56 Other fuels.....\$1,000..	20,652	19,732	920
57 Electric energy purchased.....million kwh..	2,332	2,298	34
58 Electric energy generated and used.....do....	260	258	2
59 Water intake.....million gallons..	82,408	81,984	424
60 Per production worker.....do....	0.75	0.81	0.05

See footnotes at end of table.

STATES, AND INDUSTRY: 1954

see INTRODUCTION)

Middle Atlantic									
Total			New York			Pennsylvania			
Total	Crude petroleum industry	Natural gas industry	Total	Crude petroleum industry	Natural gas industry	Total	Crude petroleum industry	Natural gas industry	
1,136	863	274	249	231	19	893	637	259	1
1,168	877	291	258	235	23	910	642	268	2
82,757	65,381	17,376	16,741	15,573	1,168	66,016	49,808	16,208	3
65,190	64,597	593	15,518	15,518	...	49,672	49,079	593	4
17,567	784	16,783	1,223	55	1,168	16,344	729	15,615	5
11,261	11,195	66	2,581	2,580	1	8,680	8,615	65	6
6	4	2	...	...	...	6	4	2	7
137,748	4,442	133,306	3,890	800	3,090	133,858	3,642	130,216	8
3,249	3,150	99	718	716	2	2,531	2,434	97	9
134,499	1,292	133,207	3,172	84	3,088	131,327	1,208	130,119	10
129,257	1,229	128,028	2,761	49	2,712	126,496	1,180	125,316	11
77,379	38,950	38,429	10,229	8,903	1,326	67,150	30,047	37,103	12
38,666	38,444	222	8,869	8,866	3	29,797	29,578	219	13
20	14	6	...	...	...	20	14	6	14
37,865	380	37,485	1,337	14	1,323	36,528	366	36,162	15
23	23	...	...	...	...	23	23	...	16
805	89	716	23	23	...	782	66	716	17
55,139	20,314	34,825	7,965	6,998	967	47,174	13,316	33,858	18
9,546	6,938	2,608	2,866	2,591	275	6,680	4,347	2,333	19
5,638	3,863	1,775	1,027	820	207	4,611	3,043	1,568	20
2,069	1,581	488	1,318	1,258	60	751	323	428	21
1,839	1,494	345	521	513	8	1,318	981	337	22
544	436	108	128	120	8	416	316	100	23
10,789	7,427	3,362	1,943	1,559	384	8,846	5,868	2,978	24
9,025	6,842	2,183	1,782	1,486	296	7,243	5,356	1,887	25
986	414	572	142	60	82	844	354	490	26
27	11	16	6	...	6	21	11	10	27
751	160	591	13	13	...	738	147	591	28
64,952	43,441	21,511	16,105	13,828	2,277	48,847	29,613	19,234	29
17,957	12,084	5,873	3,276	2,525	751	14,681	9,559	5,122	30
11,711	9,905	1,806	8,417	8,176	241	3,294	1,729	1,565	31
9,323	4,840	4,483	2,788	1,728	1,060	6,535	3,112	3,423	32
165	156	9	15	15	...	150	141	9	33
1,537	1,302	235	367	361	6	1,170	941	229	34
1,616	1,547	69	228	225	3	1,388	1,322	66	35
22,643	13,607	9,036	1,014	798	216	21,629	12,809	8,820	36
5,926	1,776	4,150	836	536	300	5,090	1,240	3,850	37
18,970	4,592	14,378	2,984	1,758	1,226	15,986	2,834	13,152	38
9,832	2,129	7,703	981	729	252	8,851	1,400	7,451	39
2,086	478	1,608	792	398	394	1,294	80	1,214	40
6,171	1,446	4,725	1,048	468	580	5,123	978	4,145	41
881	539	342	163	163	...	718	376	342	42
370	269	101	65	52	13	305	217	88	43
66	70	57	63	63	63	66	71	56	44
308	213	95	55	42	13	253	171	82	45
62	56	6	10	10	(15)	52	46	6	46
(15)	(15)	...	...	...	...	(15)	(15)	...	47
2,162	1,697	465	476	458	18	1,686	1,239	447	48
1	1	...	...	...	...	1	1	...	49
3,962	2,709	1,253	794	740	54	3,168	1,969	1,199	50
(15)	(15)	(15)	(15)	(15)	...	(15)	...	(15)	51
21	17	4	4	4	...	17	13	4	52
2,268	2,142	126	636	635	1	1,632	1,507	125	53
414	297	117	60	55	5	354	242	112	54
103	98	5	14	14	(15)	89	84	5	55
1	1	...	...	...	...	1	1	...	56
9,379	9,365	14	1,875	1,872	3	7,504	7,493	11	57
1.66	2.42	0.01	1.83	2.28	0.01	1.63	2.46	0.01	58

Table 3.—DETAILED STATISTICS FOR THE CRUDE PETROLEUM AND NATURAL GAS INDUSTRIES IN
(For explanation of line captions,

Item	East North Central					
	Total			Ohio		
	Total	Crude petroleum industry	Natural gas industry	Total	Crude petroleum industry	Natural gas industry
1 Number of operating companies.....	1,361	1,211	154	513	383	133
2 Number of establishments.....	1,473	1,318	155	520	387	133
3 Number of wells producing during December 1954, total.....	45,900	41,809	4,091	13,235	9,237	3,998
4 Oil wells ¹⁴	40,973	40,651	322	8,786	8,464	322
5 Gas wells ¹⁴	4,927	1,158	3,769	4,449	773	3,676
6 Crude petroleum shipped.....1,000 barrels..	83,752	83,629	123	2,869	2,746	123
7 Field condensate and drips shipped.....do....	9	7	2	2	...	2
8 Natural gas produced, total.....million cu.ft..	48,571	26,380	22,191	25,011	4,885	20,126
9 From oil wells ¹⁴.....do....	20,825	20,557	268	2,578	2,313	265
10 From gas wells ¹⁴.....do....	27,746	5,823	21,923	22,433	2,572	19,861
11 Natural gas shipped.....do....	34,867	13,536	21,331	23,823	4,312	19,511
12 Value of shipments, total.....\$1,000..	259,086	250,559	8,527	16,665	8,685	7,980
13 Crude petroleum.....do....	245,357	245,024	333	7,870	7,537	333
14 Field condensate and drips.....do....	19	15	4	4	...	4
15 Natural gas.....do....	10,507	2,402	8,105	8,517	934	7,583
16 Other products and purchases for resale.....do....	64	64	...	1	1	...
17 Amount received or due for services.....do....	3,139	3,054	85	273	213	60
18 Value added in mining.....do....	207,760	200,438	7,322	12,528	5,645	6,883
19 Number of persons engaged, total.....	14,238	13,312	926	4,157	3,301	856
20 Production and development workers.....	8,830	8,248	582	1,614	1,076	538
21 All other employees.....	3,550	3,411	139	1,735	1,604	131
22 Proprietors and firm members.....	1,858	1,653	205	808	621	187
23 Performing manual labor.....	499	441	58	194	146	48
24 Man-hours worked by production and development workers, total.....1,000..	16,235	15,335	900	2,516	1,668	848
25 Operating and maintaining wells.....do....	13,108	12,366	742	2,125	1,429	696
26 Drilling wells and rig building.....do....	2,483	2,360	123	309	187	122
27 Exploration work (except drilling).....do....	338	320	18	21	8	13
28 Other work.....do....	306	289	17	61	44	17
29 Principal expenses designated below, total.....\$1,000..	136,242	131,359	4,883	22,200	17,608	4,592
30 Wages of production and development workers.....do....	32,058	30,402	1,656	3,811	2,291	1,520
31 Salaries of all other employees.....do....	18,525	17,926	599	9,222	8,641	581
32 Supplies.....do....	27,313	26,483	830	3,070	2,314	756
33 Gas purchased for gas lift and repressuring.....do....	25	25	...	9	9	...
34 Fuel purchased.....do....	2,361	2,322	39	149	115	34
35 Electric energy purchased.....do....	2,762	2,751	11	67	57	10
36 Contract work.....do....	53,198	51,450	1,748	5,872	4,181	1,691
37 Purchased machinery installed.....do....	27,356	26,872	484	2,941	2,463	478
38 Capital expenditures, total.....do....	61,689	59,782	1,907	7,971	6,099	1,872
39 Development and exploration of mineral property.....do....	29,878	28,616	1,262	4,065	2,820	1,245
40 Other construction.....do....	4,760	4,725	35	94	70	24
41 New machinery and equipment.....do....	25,169	24,580	589	3,374	2,789	585
42 Used plant and equipment.....do....	1,882	1,861	21	438	420	18
43 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....1,000..	570	555	15	81	69	12
44 Per production worker.....do....	65	67	26	50	64	22
45 Prime movers.....1,000..	466	452	14	76	65	11
46 Electric motors driven by purchased energy.....do....	104	103	1	5	4	1
47 Horsepower rating of electric motors driven by energy generated at the establishment.....do....	12	12	...	(15)	(15)	...
48 Energy used.....million kwh equivalent..	3,160	3,085	75	193	122	71
49 Produced and used for fuel at same establishment:						
50 Crude petroleum.....1,000 barrels..	36	36	...	1	1	...
51 Natural gas.....million cu.ft..	6,140	5,970	170	424	264	160
52 Fuels purchased:						
53 Coal.....1,000 short tons..	(15)	(15)	...	...	...	...
54 Fuel oils.....1,000 barrels..	119	118	1	2	1	1
55 Gas (natural and manufactured).....million cu.ft..	1,319	1,263	56	81	25	56
56 Other fuels.....\$1,000..	1,706	1,690	16	114	103	11
57 Electric energy purchased.....million kwh..	174	174	(15)	4	4	(15)
58 Electric energy generated and used.....do....	28	28	...	(15)	(15)	...
59 Water intake.....million gallons..	8,760	8,760	...	270	270	...
60 Per production worker.....do....	0.99	1.06	...	0.17	0.25	...

See footnotes at end of table.

THE UNITED STATES BY GEOGRAPHIC DIVISIONS, STATES, AND INDUSTRY: 1954—Continued
see INTRODUCTION)

East North Central—Continued					West North Central						
Indiana ¹	Illinois ²	Michigan			Total			Missouri ³	North Dakota ⁴	Nebraska ⁵	
		Total	Crude petroleum industry	Natural gas industry	Total	Crude petroleum industry	Natural gas industry				
249	522	179	168	11	950	903	51	16	32	65	1
250	523	180	169	11	1,007	953	54	16	32	66	2
3,717	24,896	4,052	3,980	72	38,382	35,044	3,338	101	453	546	3
3,482	24,882	3,823	3,823	...	34,118	33,241	877	99	426	501	4
235	14	229	157	72	4,264	1,803	2,461	2	27	45	5
8,761	60,976	11,146	11,146	...	121,122	119,162	1,960	(D)	5,521	7,464	6
...	1	6	6	...	21	21	(¹⁵)	...	...	...	7
2,271	10,846	10,443	9,425	1,018	401,172	174,245	226,927	(D)	2,548	7,008	8
985	10,754	6,508	6,508	...	18,259	16,910	1,349	(D)	2,380	2,718	9
1,286	92	3,935	2,917	1,018	382,913	157,335	225,578	(D)	168	4,290	10
1,659	3,563	5,822	5,049	773	392,636	165,805	226,831	(D)	(D)	(D)	11
26,188	182,138	34,095	33,833	262	382,708	349,167	33,541	(D)	12,028	21,444	12
25,594	179,820	32,073	32,073	...	330,870	325,398	5,472	(D)	11,951	20,508	13
...	4	11	11	...	64	63	1	...	...	...	14
362	463	1,165	928	237	46,879	18,843	28,036	(D)	62	851	15
8	55	...	...	...	...	...	...	...	...	...	16
224	1,796	846	821	25	4,895	4,863	32	...	15	85	17
19,951	150,753	24,528	24,341	187	296,266	267,380	28,886	(D)	(¹⁹)	18,551	18
1,477	7,057	1,547	1,498	49	11,473	10,854	619	84	671	362	19
807	5,250	1,159	1,128	31	8,042	7,597	445	15	374	257	20
431	1,178	206	198	8	2,336	2,188	148	64	297	67	21
239	629	182	172	10	1,095	1,069	26	5	...	38	22
57	181	67	60	7	324	311	13	3	...	15	23
1,304	10,117	2,298	2,251	47	15,751	14,859	892	22	803	505	24
988	8,164	1,831	1,789	42	11,600	11,068	532	19	188	297	25
237	1,631	306	306	...	2,900	2,685	215	...	119	160	26
36	173	108	103	5	968	923	45	3	493	46	27
43	149	53	53	...	283	183	100	...	3	2	28
13,921	80,872	19,249	19,008	241	181,845	167,915	13,930	864	26,627	12,099	29
2,426	20,828	4,993	4,868	125	31,250	29,287	1,963	39	1,808	1,180	30
2,257	6,002	1,044	1,026	18	12,339	11,586	753	440	1,654	293	31
3,241	15,757	5,245	5,191	54	40,709	37,436	3,273	77	5,864	2,222	32
2	14	...	...	...	92	92	...	...	...	...	33
323	1,550	339	335	4	6,940	6,673	267	13	622	281	34
306	2,232	157	156	1	3,552	3,395	157	2	28	50	35
5,366	34,489	7,471	7,432	39	86,963	79,446	7,517	293	16,651	8,073	36
2,059	19,327	3,029	3,023	6	49,489	47,366	2,123	232	8,335	6,211	37
5,060	41,984	6,674	6,645	29	101,303	92,621	8,682	449	13,765	13,944	38
2,524	19,734	3,555	3,539	16	45,654	39,714	5,940	216	5,206	7,090	39
283	4,278	105	99	6	4,273	3,889	384	8	281	508	40
2,146	16,899	2,750	2,746	4	48,182	45,922	2,260	225	7,761	6,281	41
107	1,073	264	261	3	3,194	3,096	98	...	517	65	42
55	330	104	101	3	698	662	36	1	31	31	43
68	63	90	90	97	87	87	81	67	83	121	44
40	252	98	95	3	615	584	31	1	31	29	45
15	78	6	6	...	83	78	5	(¹⁵)	(¹⁵)	2	46
2	10	(¹⁵)	(¹⁵)	...	1	1	...	...	(¹⁵)	(¹⁵)	47
307	2,049	611	607	4	9,306	8,996	310	7	490	332	48
3	32	...	...	...	71	71	...	...	49	1	49
364	3,830	1,522	1,512	10	5,555	5,465	90	13	618	433	50
...	(¹⁵)	(¹⁵)	(¹⁵)	...	1	1	...	(¹⁵)	...	...	51
16	87	14	14	...	214	210	4	(¹⁵)	9	25	52
317	765	156	156	...	20,160	19,367	793	...	183	448	53
193	1,148	251	247	4	2,622	2,539	83	12	573	45	54
17	145	8	8	(¹⁵)	248	237	11	(¹⁵)	1	3	55
4	24	(¹⁵)	(¹⁵)	...	4	4	...	...	(¹⁵)	(¹⁵)	56
590	7,499	401	401	...	7,855	7,835	20	...	140	178	57
0.73	1.43	0.35	0.36	...	0.98	1.03	0.04	...	0.37	0.69	58

Table 3.—DETAILED STATISTICS FOR THE CRUDE PETROLEUM AND NATURAL GAS INDUSTRIES¹ IN

(For explanation of line captions,

Item	West North Central--Continued			
	Kansas			Iowa and South Dakota ⁶
	Total	Crude petroleum industry	Natural gas industry	
1 Number of operating companies.....	863	818	47	22
2 Number of establishments.....	871	824	47	22
3 Number of wells producing during December 1954, total.....	37,278	33,994	3,284	4
4 Oil wells ¹⁴	33,090	32,213	877	2
5 Gas wells ¹⁴	4,188	1,781	2,407	2
6 Crude petroleum shipped.....1,000 barrels..	108,019	106,059	1,960	(D)
7 Field condensate and drips shipped.....do....	21	21	(¹⁵)	...
8 Natural gas produced, total.....million cu.ft..	391,578	165,610	225,968	(D)
9 From oil wells ¹⁴.....do....	13,145	11,796	1,349	(D)
10 From gas wells ¹⁴.....do....	378,433	153,814	224,619	(D)
11 Natural gas shipped.....do....	385,222	159,350	225,872	(D)
12 Value of shipments, total.....\$1,000..	348,952	315,502	33,450	(D)
13 Crude petroleum.....do....	298,131	292,659	5,472	(D)
14 Field condensate and drips.....do....	64	63	1	...
15 Natural gas.....do....	45,962	18,017	27,945	(D)
16 Other products and purchases for resale.....do....	...	...	...	...
17 Amount received or due for services.....do....	4,795	4,763	32	...
18 Value added in mining.....do....	285,117	255,830	29,287	(D)
19 Number of persons engaged, total.....	10,279	9,678	601	77
20 Production and development workers.....	7,374	6,932	442	22
21 All other employees.....	1,864	1,731	133	44
22 Proprietors and firm members.....	1,041	1,015	26	11
23 Performing manual labor.....	306	293	13	...
24 Man-hours worked by production and development workers, total.....1,000..	14,374	13,485	889	47
25 Operating and maintaining wells.....do....	11,092	10,563	529	4
26 Drilling wells and rig building.....do....	2,621	2,406	215	...
27 Exploration work (except drilling).....do....	385	340	45	41
28 Other work.....do....	276	176	100	2
29 Principal expenses designated below, total.....\$1,000..	139,419	126,250	13,169	2,836
30 Wages of production and development workers.....do....	28,129	26,172	1,957	94
31 Salaries of all other employees.....do....	9,706	9,027	679	246
32 Supplies.....do....	32,294	29,068	3,226	252
33 Gas purchased for gas lift and repressuring.....do....	92	92	...	...
34 Fuel purchased.....do....	6,013	5,746	267	11
35 Electric energy purchased.....do....	3,471	3,314	157	1
36 Contract work.....do....	59,714	52,831	6,883	2,232
37 Purchased machinery installed.....do....	34,649	32,526	2,123	62
38 Capital expenditures, total.....do....	72,398	63,905	8,493	747
39 Development and exploration of mineral property.....do....	32,454	26,703	5,751	688
40 Other construction.....do....	3,472	3,088	384	4
41 New machinery and equipment.....do....	33,860	31,600	2,260	55
42 Used plant and equipment.....do....	2,612	2,514	98	...
43 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....1,000..	633	597	36	2
44 Per production worker.....	86	86	81	91
45 Prime movers.....1,000..	552	521	31	2
46 Electric motors driven by purchased energy.....do....	81	76	5	...
47 Horsepower rating of electric motors driven by energy generated at the establishment.....do....	1	1	...	...
48 Energy used.....million kwh equivalent..	8,474	8,164	310	3
49 Produced and used for fuel at same establishment:				
50 Crude petroleum.....1,000 barrels..	21	21	...	...
51 Natural gas.....million cu.ft..	4,491	4,401	90	...
52 Fuels purchased:				
53 Coal.....1,000 short tons..	1	1	...	...
54 Fuel oils.....1,000 barrels..	180	176	4	(¹⁵)
55 Gas (natural and manufactured).....million cu.ft..	19,529	18,736	793	...
56 Other fuels.....\$1,000..	1,982	1,899	83	10
57 Electric energy purchased.....million kwh..	244	233	11	(¹⁵)
58 Electric energy generated and used.....do....	4	4	...	...
59 Water intake.....million gallons..	7,535	7,515	20	2
60 Per production worker.....do....	1.02	1.08	0.05	0.09

See footnotes at end of table.

THE UNITED STATES BY GEOGRAPHIC DIVISIONS, STATES, AND INDUSTRY: 1954--Continued
see INTRODUCTION)

South Atlantic								
Total			West Virginia			Maryland, Virginia, Georgia, and Florida ⁷		
Total	Crude petroleum industry	Natural gas industry	Total	Crude petroleum industry	Natural gas industry	Total	Crude petroleum industry	Natural gas industry
756	311	445	720	283	439	41	30	11
775	317	458	734	287	447	41	30	11
23,183	9,024	14,159	23,103	9,008	14,095	80	16	64
9,014	7,712	1,302	8,998	7,696	1,302	16	16	...
14,169	1,312	12,857	14,105	1,312	12,793	64	...	64
3,151	2,878	273	(D)	(D)	(D)	(D)	(D)	(D)
9	4	5	9	4	5	...	...	...
172,447	9,230	163,217	169,617	9,182	160,435	2,830	48	2,782
5,828	4,884	944	5,780	4,836	944	48	48	...
166,619	4,346	162,273	163,837	4,346	159,491	2,782	...	2,782
166,112	6,712	159,400	163,330	6,712	156,618	2,782	...	2,782
55,202	9,563	45,639	53,340	8,494	44,846	1,862	1,069	793
8,753	7,955	798	187,719	6,893	188,26	181,069	1,062	187
27	16	11	27	16	11	...	...	...
46,311	1,544	44,767	45,518	1,537	43,981	793	7	786
35	...	35	(18)	...	(18)	(18)	...	(18)
76	48	28	76	48	28	...	...	...
46,870	5,127	41,743	48,525	7,224	41,301	(19)	(19)	442
5,406	2,167	3,239	5,071	1,910	3,161	335	257	78
3,486	1,304	2,182	3,368	1,227	2,141	118	77	41
650	276	374	469	113	356	181	163	18
1,270	587	683	1,234	570	664	36	17	19
195	107	88	194	107	87	1	...	1
5,823	2,168	3,655	5,586	2,012	3,574	237	156	81
4,979	1,946	3,033	4,905	1,923	2,982	74	23	51
587	100	487	539	79	460	48	21	27
139	121	18	25	9	16	114	112	2
118	1	117	117	1	116	1	...	1
30,370	10,751	19,619	24,330	5,998	18,332	6,040	4,753	1,287
9,808	3,693	6,115	9,353	3,373	5,980	455	320	135
2,994	1,320	1,674	1,953	362	1,591	1,041	958	83
6,807	1,887	4,920	5,446	964	4,482	1,361	923	438
22	10	12	22	10	12	...	...	...
285	143	142	257	118	139	28	25	3
79	54	25	78	53	25	1	1	...
10,375	3,644	6,731	7,221	1,118	6,103	3,154	2,526	628
3,658	458	3,200	3,382	329	3,053	276	129	147
12,894	1,760	11,134	11,591	1,322	10,269	1,303	438	865
7,323	1,115	6,208	6,455	741	5,714	868	374	494
1,178	147	1,031	1,078	146	932	100	1	99
4,211	441	3,770	3,881	383	3,498	330	58	272
182	57	125	177	52	125	5	5	...
201	133	68	192	126	66	9	7	2
58	102	31	57	103	31	76	91	49
194	131	63	185	124	61	9	7	2
7	2	5	7	2	5	(15)	(15)	...
(15)	...	(15)	(15)	...	(15)	...	...	...
908	487	421	890	470	420	18	17	1
2	2	...	2	2	...	...	...	...
2,463	1,241	1,222	2,429	1,207	1,222	34	34	...
...
1	...	1	1	...	1	...	...	...
274	244	30	270	243	27	4	1	3
224	96	128	198	71	127	26	25	1
5	3	2	5	3	2	(15)	(15)	...
(15)	...	(15)	(15)	...	(15)	...	...	...
374	286	88	369	283	86	5	3	2
0.11	0.22	0.04	0.11	0.23	0.04	0.04	0.04	0.05

Table 3.—DETAILED STATISTICS FOR THE CRUDE PETROLEUM AND NATURAL GAS INDUSTRIES IN

(For explanation of line captions,

Item	East South Central					
	Total			Kentucky		
	Total	Crude petroleum industry	Natural gas industry	Total	Crude petroleum industry	Natural gas industry
1 Number of operating companies.....	456	402	57	326	281	46
2 Number of establishments.....	493	435	58	329	282	47
3 Number of wells producing during December 1954, total.....	18,573	16,120	2,453	16,610	14,243	2,367
4 Oil wells ¹⁴	14,279	14,142	137	12,555	12,439	116
5 Gas wells ¹⁴	4,294	1,978	2,316	4,055	1,804	2,251
6 Crude petroleum shipped.....1,000 barrels..	45,644	45,361	283	11,881	11,825	56
7 Field condensate and drips shipped.....do....	783	736	47	4	4	...
8 Natural gas produced, total.....million cu.ft..	273,871	207,818	66,053	73,242	35,934	37,308
9 From oil wells ¹⁴.....do....	55,941	55,921	20	2,028	2,027	1
10 From gas wells ¹⁴.....do....	217,930	151,897	66,033	71,214	33,907	37,307
11 Natural gas shipped.....do....	204,533	139,266	65,267	68,848	31,776	37,072
12 Value of shipments, total.....\$1,000..	151,807	136,520	15,287	53,956	41,702	12,254
13 Crude petroleum.....do....	117,640	116,917	723	34,810	34,662	148
14 Field condensate and drips.....do....	2,331	2,190	141	14	14	...
15 Natural gas.....do....	31,213	16,793	14,420	18,782	6,679	12,103
16 Other products and purchases for resale.....do....	1	1	...	...	...	...
17 Amount received or due for services.....do....	622	619	3	350	347	3
18 Value added in mining.....do....	124,426	109,353	15,073	46,407	34,304	12,103
19 Number of persons engaged, total.....	5,129	4,659	470	3,292	2,896	396
20 Production and development workers.....	3,748	3,375	373	2,604	2,292	312
21 All other employees.....	885	845	40	285	251	34
22 Proprietors and firm members.....	496	439	57	403	353	50
23 Performing manual labor.....	120	109	11	100	91	9
24 Man-hours worked by production and development workers, total.....1,000..	7,008	6,373	635	4,617	4,113	504
25 Operating and maintaining wells.....do....	4,503	4,025	478	3,218	2,776	442
26 Drilling wells and rig building.....do....	1,187	1,063	124	685	637	48
27 Exploration work (except drilling).....do....	611	592	19	64	64	...
28 Other work.....do....	707	693	14	650	636	14
29 Principal expenses designated below, total.....\$1,000..	66,528	61,200	5,328	25,958	22,656	3,302
30 Wages of production and development workers.....do....	12,848	11,567	1,281	7,506	6,534	972
31 Salaries of all other employees.....do....	4,664	4,530	134	1,176	1,072	104
32 Supplies.....do....	16,951	15,707	1,244	6,628	5,925	703
33 Gas purchased for gas lift and repressuring.....do....	589	589	...	19	19	...
34 Fuel purchased.....do....	1,067	1,022	45	431	393	38
35 Electric energy purchased.....do....	659	647	12	410	406	4
36 Contract work.....do....	29,750	27,138	2,612	9,788	8,307	1,481
37 Purchased machinery installed.....do....	13,934	12,453	1,481	5,420	4,697	723
38 Capital expenditures, total.....do....	35,569	30,389	5,180	15,147	12,349	2,798
39 Development and exploration of mineral property.....do....	20,807	17,638	3,169	8,185	6,339	1,846
40 Other construction.....do....	3,555	2,610	945	1,254	1,036	218
41 New machinery and equipment.....do....	10,766	9,700	1,066	5,306	4,572	734
42 Used plant and equipment.....do....	441	441	...	402	402	...
43 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....1,000..	252	242	10	120	110	10
44 Per production worker.....	67	72	27	46	48	32
45 Prime movers.....1,000..	218	208	10	95	85	10
46 Electric motors driven by purchased energy.....do....	34	34	(¹⁵)	25	25	(¹⁵)
47 Horsepower rating of electric motors driven by energy generated at the establishment.....do....	(¹⁵)	(¹⁵)	...	(¹⁵)	(¹⁵)	...
48 Energy used.....million kwh equivalent..	3,258	3,022	236	838	758	80
49 Produced and used for fuel at same establishment:						
50 Crude petroleum.....1,000 barrels..	1	1	...	1	1	...
51 Natural gas.....million cu.ft..	8,495	7,785	710	2,128	1,914	214
52 Fuels purchased:						
53 Coal.....1,000 short tons..	...	...	...	...	...	...
54 Fuel oils.....1,000 barrels..	27	26	1	9	8	1
55 Gas (natural and manufactured).....million cu.ft..	1,238	1,238	20	175	157	18
56 Other fuels.....\$1,000..	673	637	36	360	331	29
57 Electric energy purchased.....million kwh..	42	41	1	23	23	(¹⁵)
58 Electric energy generated and used.....do....	1	1	...	1	1	...
59 Water intake.....million gallons..	2,142	2,137	5	1,797	1,792	5
60 Per production worker.....do....	0.57	0.63	0.01	0.69	0.78	0.02

See footnotes at end of table.

CRUDE PETROLEUM AND NATURAL GAS

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THE UNITED STATES BY GEOGRAPHIC DIVISIONS, STATES, AND INDUSTRY: 1954—Continued

see INTRODUCTION)

East South Central—Continued										
Tennessee			Alabama (Crude petroleum industry)	Mississippi			West South Central			
Total	Crude petroleum industry	Natural gas industry		Total	Crude petroleum industry	Natural gas industry	Total	Crude petroleum industry	Natural gas industry	
18	15	3	28	112	104	8	4,536	4,304	269	1
18	15	3	28	118	110	8	5,039	4,737	302	2
44	12	32	101	1,818	1,764	54	223,618	214,288	9,330	3
24	12	12	101	1,599	1,590	9	206,231	203,808	2,423	4
20	...	20	...	219	174	45	17,387	10,480	6,907	5
13	9	4	1,584	32,166	31,943	223	1,329,842	1,313,342	16,500	6
...	...	...	...	779	732	47	23,906	19,897	4,009	7
94	...	94	96	200,439	171,788	28,651	7,613,124	5,833,699	1,779,425	8
...	...	...	96	53,817	53,798	19	2,434,134	2,351,388	82,746	9
94	...	94	...	146,622	117,990	28,632	5,178,990	3,482,311	1,696,679	10
94	...	94	...	135,591	107,490	28,101	6,035,104	4,394,474	1,640,630	11
57	34	23	3,136	94,658	91,648	3,010	4,435,482	4,205,760	229,722	12
46	34	12	3,136	79,648	79,085	563	3,778,931	3,731,289	47,642	13
...	...	...	...	2,317	2,176	141	72,149	60,404	11,745	14
11	...	11	...	12,420	10,114	2,306	565,120	395,698	169,422	15
...	...	...	...	1	1	...	111	111	...	16
...	...	...	...	272	272	...	19,171	18,258	913	17
(19)	(19)	9	1,181	76,874	73,913	2,961	3,856,800	3,646,660	210,140	18
24	16	8	126	1,687	1,621	66	109,415	105,771	3,644	19
10	3	7	77	1,057	1,003	54	61,942	59,814	2,128	20
1	1	...	27	572	566	6	41,925	40,610	1,315	21
13	12	1	22	58	52	6	5,548	5,347	201	22
5	4	1	3	12	11	1	1,831	1,753	78	23
20	6	14	144	2,227	2,110	117	125,008	120,425	4,583	24
20	6	14	65	1,200	1,178	22	89,768	86,738	3,030	25
...	...	...	11	491	415	76	21,920	21,140	780	26
...	...	...	68	479	460	19	9,498	9,253	245	27
...	...	...	...	57	57	...	3,822	3,294	528	28
120	92	28	2,770	37,680	35,682	1,998	1,951,775	1,867,569	84,206	29
22	8	14	318	5,002	4,707	295	270,139	261,002	9,137	30
5	5	...	153	3,330	3,300	30	254,276	246,570	7,706	31
23	20	3	546	9,754	9,216	538	433,834	411,347	22,487	32
...	...	...	...	570	570	...	9,110	8,901	209	33
3	2	1	14	619	613	6	17,857	17,298	559	34
6	...	6	42	201	199	2	14,398	14,235	163	35
61	57	4	1,697	18,204	17,077	1,127	952,161	908,216	43,945	36
...	...	...	114	8,400	7,642	758	415,988	401,547	14,441	37
...	...	...	458	19,964	17,582	2,382	1,264,666	1,202,444	62,222	38
...	...	...	339	12,283	10,960	1,323	816,752	777,310	39,442	39
...	...	...	37	2,264	1,537	727	55,597	55,597	5,180	40
...	...	...	82	5,378	5,046	332	367,785	351,705	16,080	41
...	...	...	...	39	39	...	19,352	17,832	1,520	42
(15)	...	(15)	5	127	127	(15)	4,933	4,764	169	43
xxx	...	xxx	65	120	127	xxx	80	80	79	44
(15)	...	...	4	119	119	(15)	4,364	4,208	156	45
(15)	...	(15)	1	8	8	(15)	569	556	13	46
...	...	...	...	...	...	...	48	48	(15)	47
2	...	2	27	2,391	2,237	154	90,586	87,569	3,017	48
...	...	...	...	...	...	...	234	234	...	49
...	...	...	53	6,314	5,818	496	229,691	222,075	7,616	50
...	...	...	...	...	...	...	(15)	(15)	...	51
...	...	...	1	17	17	...	946	931	15	52
...	...	...	10	1,073	1,071	2	45,733	43,956	1,777	53
3	2	1	10	300	294	6	10,979	10,616	363	54
1	...	1	4	14	14	(15)	1,077	1,068	9	55
...	...	...	...	...	...	...	131	129	2	56
...	...	...	2	343	343	...	45,660	45,441	219	57
...	...	...	0.03	0.32	0.34	...	0.74	0.76	0.10	58

Table 3.—DETAILED STATISTICS FOR THE CRUDE PETROLEUM AND NATURAL GAS INDUSTRIES IN

(For explanation of line captions,

Item	West South Central—Continued					
	Arkansas			Louisiana		
	Total	Crude petroleum industry	Natural gas industry	Total	Crude petroleum industry	Natural gas industry
1 Number of operating companies.....	200	194	6	451	372	85
2 Number of establishments.....	204	198	6	463	377	86
3 Number of wells producing during December 1954, total.....	3,629	3,487	142	17,331	14,486	2,845
4 Oil wells ¹⁴	3,405	3,405	...	13,561	13,156	405
5 Gas wells ¹⁴	224	82	142	3,770	1,330	2,440
6 Crude petroleum shipped.....1,000 barrels..	26,701	26,699	2	230,467	227,457	3,010
7 Field condensate and drips shipped.....do...	26	26	...	10,732	9,157	1,575
8 Natural gas produced, total.....million cu.ft..	49,365	39,809	9,556	1,658,951	1,226,509	432,442
9 From oil wells ¹⁴.....do...	35,895	35,171	724	385,090	379,250	5,840
10 From gas wells ¹⁴.....do...	13,470	4,638	8,832	1,273,861	847,259	426,602
11 Natural gas shipped.....do...	28,038	18,558	9,480	1,310,010	900,689	409,321
12 Value of shipments, total.....\$1,000..	73,741	72,769	972	847,595	786,312	61,283
13 Crude petroleum.....do...	71,281	71,276	5	674,654	666,180	8,474
14 Field condensate and drips.....do...	59	59	...	32,521	28,008	4,513
15 Natural gas.....do...	2,199	1,265	934	138,136	90,080	48,056
16 Other products and purchases for resale.....do...	...	...	...	...	...	...
17 Amount received or due for services.....do...	202	169	33	2,284	2,044	240
18 Value added in mining.....do...	61,194	60,398	796	738,888	683,386	55,502
19 Number of persons engaged, total.....	1,923	1,860	63	17,354	16,131	1,223
20 Production and development workers.....	1,220	1,168	52	11,628	10,997	631
21 All other employees.....	489	483	6	5,328	4,776	552
22 Proprietors and firm members.....	214	209	5	398	358	40
23 Performing manual labor.....	64	63	1	113	104	9
24 Man-hours worked by production and development workers, total.....1,000..	2,430	2,308	122	24,122	22,803	1,319
25 Operating and maintaining wells.....do...	2,090	2,012	78	14,424	13,422	1,002
26 Drilling wells and rig building.....do...	202	170	32	6,100	6,042	58
27 Exploration work (except drilling).....do...	111	107	4	2,492	2,399	93
28 Other work.....do...	27	19	8	1,106	940	166
29 Principal expenses designated below, total.....\$1,000..	26,548	25,916	632	464,057	430,951	33,106
30 Wages of production and development workers.....do...	4,673	4,446	227	56,938	54,358	2,580
31 Salaries of all other employees.....do...	2,762	2,738	24	32,577	29,464	3,113
32 Supplies.....do...	6,975	6,803	172	124,543	116,725	7,818
33 Gas purchased for gas lift and repressuring.....do...	1,010	1,010	...	656	562	94
34 Fuel purchased.....do...	409	402	7	3,761	3,614	147
35 Electric energy purchased.....do...	493	491	2	1,009	958	51
36 Contract work.....do...	10,226	10,026	200	244,573	225,270	19,303
37 Purchased machinery installed.....do...	3,493	3,461	32	106,404	99,124	7,280
38 Capital expenditures, total.....do...	10,059	9,822	237	372,239	343,327	28,912
39 Development and exploration of mineral property.....do...	5,204	5,009	195	263,766	245,172	18,594
40 Other construction.....do...	372	372	...	19,215	16,817	2,398
41 New machinery and equipment.....do...	3,503	3,470	33	87,548	80,089	7,459
42 Used plant and equipment.....do...	980	971	9	1,710	1,249	461
43 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....1,000..	113	112	1	926	884	42
44 Per production worker.....	93	96	19	80	80	67
45 Prime movers.....1,000..	97	96	1	881	841	40
46 Electric motors driven by purchased energy.....do...	16	16	...	45	43	2
47 Horsepower rating of electric motors driven by energy generated at the establishment.....do...	...	...	...	12	12	(15)
48 Energy used.....million kwh equivalent..	1,432	1,427	5	24,021	23,301	720
49 Produced and used for fuel at same establishment:						
50 Crude petroleum.....1,000 barrels..	10	10	...	17	17	...
51 Natural gas.....million cu.ft..	1,282	1,282	...	68,500	67,333	1,167
52 Fuels purchased:						
53 Coal.....1,000 short tons..	...	...	...	...	...	...
54 Fuels oils.....1,000 barrels..	5	5	...	501	501	(15)
55 Gas (natural and manufactured).....million cu.ft..	2,993	2,983	10	4,920	3,836	1,084
56 Other fuels.....\$1,000..	174	168	6	1,936	1,844	92
57 Electric energy purchased.....million kwh..	47	47	(15)	61	57	4
58 Electric energy generated and used.....do...	...	...	...	71	69	2
59 Water intake.....million gallons..	734	734	...	5,920	5,790	130
60 Per production worker.....do...	0.60	0.63	...	0.51	0.53	0.21

See footnotes at end of table.

CRUDE PETROLEUM AND NATURAL GAS

13B-19

THE UNITED STATES BY GEOGRAPHIC DIVISIONS, STATES, AND INDUSTRY: 1954—Continued

see INTRODUCTION)

West South Central—Continued								
Oklahoma			Texas			Mountain		
Total	Crude petroleum industry	Natural gas industry	Total	Crude petroleum industry	Natural gas industry	Total	Crude petroleum industry	Natural gas industry
1,515	1,464	55	2,788	2,649	155	726	672	65
1,535	1,480	55	2,837	2,682	155	908	832	76
58,000	56,807	1,193	144,658	139,508	5,150	21,099	18,829	2,270
54,630	54,521	109	134,635	132,726	1,909	17,893	17,761	132
3,370	2,286	1,084	10,023	6,782	3,241	3,206	1,068	2,138
169,032	168,360	672	903,642	890,826	12,816	223,608	222,979	629
208	138	70	12,940	10,576	2,364	721	292	429
782,388	637,369	145,019	5,122,420	3,930,012	1,192,408	676,406	475,459	200,947
420,417	414,094	6,323	1,592,732	1,522,873	69,859	302,784	295,599	7,185
361,971	223,275	138,696	3,529,688	2,407,139	1,122,549	373,622	179,860	193,762
578,523	434,125	144,398	4,118,533	3,041,102	1,077,431	579,428	382,855	196,573
523,338	504,356	18,982	2,990,808	2,842,323	148,485	626,908	605,062	21,846
465,973	464,036	1,937	2,567,023	2,529,797	37,226	573,728	572,138	1,590
599	397	202	38,970	31,940	7,030	2,050	840	1,210
52,215	35,642	16,573	372,570	268,711	103,859	48,725	29,709	19,016
64	64	...	47	47	...	33	33	...
4,487	4,217	270	12,198	11,828	370	2,372	2,342	30
433,563	416,436	17,127	2,623,155	2,486,440	136,715	529,746	509,387	20,359
23,607	23,236	371	66,531	64,544	1,987	12,709	11,918	791
13,431	13,207	224	35,663	34,442	1,221	7,006	6,479	527
8,615	8,496	119	27,493	26,855	638	5,161	4,939	222
1,561	1,533	28	3,375	3,247	128	542	500	42
547	536	11	1,107	1,050	57	172	160	12
25,851	25,516	335	72,605	69,798	2,807	13,969	12,972	997
20,420	20,211	209	52,834	51,093	1,741	7,663	7,387	276
3,560	3,460	100	12,058	11,468	590	2,942	2,358	584
1,256	1,241	15	5,639	5,506	133	3,235	3,138	97
615	604	11	2,074	1,731	343	129	89	40
312,418	304,692	7,726	1,148,752	1,106,010	42,742	316,000	295,041	20,959
51,707	50,966	741	156,821	151,232	5,589	32,122	29,782	2,340
50,196	49,327	869	168,741	165,041	3,700	30,028	28,759	1,269
59,164	57,244	1,920	243,152	230,575	12,577	73,162	65,693	7,469
431	427	4	7,013	6,902	111	106	105	1
3,360	3,278	82	10,327	10,004	323	3,012	2,807	205
3,368	3,365	3	9,528	9,421	107	1,668	1,657	11
144,192	140,085	4,107	553,170	532,835	20,335	175,902	166,238	9,664
69,308	68,111	1,197	236,783	230,851	5,932	61,023	55,258	5,765
190,048	184,590	5,458	692,320	664,705	27,615	217,711	196,083	21,628
112,718	108,679	4,039	435,064	418,450	16,614	142,813	131,606	11,207
8,406	8,256	150	32,784	30,152	2,632	12,696	10,574	2,122
66,040	64,786	1,254	210,694	203,360	7,334	54,525	51,185	3,340
2,884	2,869	15	13,778	12,743	1,035	7,677	2,718	4,959
889	877	12	3,005	2,891	114	681	641	40
66	66	54	84	84	93	97	99	76
791	783	8	2,595	2,488	107	617	577	40
98	94	4	410	403	7	64	64	(15)
7	7	...	29	29	...	16	16	...
15,913	15,832	81	49,220	47,009	2,211	11,525	11,188	337
153	153	...	54	54	...	50	50	...
36,881	36,803	78	123,028	116,657	6,371	30,163	29,455	708
(15)	(15)	...	...	...	...	...	...	...
57	52	5	383	373	10	103	93	10
11,000	10,880	120	26,820	26,257	563	4,191	4,191	223
2,186	2,141	45	6,683	6,463	220	2,029	1,894	135
275	275	(15)	694	689	5	115	115	(15)
16	16	...	44	44	...	49	49	...
11,921	11,913	8	27,085	27,004	81	2,988	2,930	58
0.89	0.90	0.04	0.76	0.78	0.07	0.43	0.45	0.11

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 3.—DETAILED STATISTICS FOR THE CRUDE PETROLEUM AND NATURAL GAS INDUSTRIES IN

(For explanation of line captions,

Item	Mountain—Continued			
	Montana			Wyoming ⁸
	Total	Crude petroleum industry	Natural gas industry	
1 Number of operating companies.....	206	193	14	210
2 Number of establishments.....	207	193	14	214
3 Number of wells producing during December 1954, total.....	4,397	3,398	999	5,789
4 Oil wells ¹⁴	3,301	3,262	39	5,627
5 Gas wells ¹⁴	1,096	136	960	162
6 Crude petroleum shipped.....1,000 barrels..	13,745	13,657	88	90,082
7 Field condensate and drips shipped.....do....	(D)	(D)	(D)	103
8 Natural gas produced, total.....million cu.ft..	¹⁶ 30,261	¹⁶ 10,998	19,263	¹⁶ 110,290
9 From oil wells ¹⁴	¹⁶ 2,549	¹⁶ 2,544	5	¹⁶ 62,655
10 From gas wells ¹⁴.....do....	27,712	8,454	19,258	47,635
11 Natural gas shipped.....do....	26,561	8,973	17,588	68,647
12 Value of shipments, total.....\$1,000..	32,323	30,791	1,532	223,629
13 Crude petroleum.....do....	30,382	30,144	238	214,314
14 Field condensate and drips.....do....	(D)	(D)	(D)	313
15 Natural gas.....do....	1,894	616	1,278	7,546
16 Other products and purchases for resale.....do....	...	...	...	13
17 Amount received or due for services.....do....	(D)	(D)	(D)	1,443
18 Value added in mining.....do....	23,677	21,720	1,957	193,467
19 Number of persons engaged, total.....	1,886	1,760	126	4,267
20 Production and development workers.....	878	769	109	2,537
21 All other employees.....	824	813	11	1,644
22 Proprietors and firm members.....	184	178	6	86
23 Performing manual labor.....	51	48	3	35
24 Man-hours worked by production and development workers, total.....1,000..	1,808	1,653	155	4,908
25 Operating and maintaining wells.....do....	945	821	124	3,155
26 Drilling wells and rig building.....do....	244	224	20	697
27 Exploration work (except drilling).....do....	613	602	11	1,023
28 Other work.....do....	6	6	...	33
29 Principal expenses designated below, total.....\$1,000..	35,044	34,076	968	93,544
30 Wages of production and development workers.....do....	3,820	3,443	377	11,680
31 Salaries of all other employees.....do....	4,571	4,510	61	9,831
32 Supplies.....do....	6,099	5,881	218	19,655
33 Gas purchased for gas lift and repressuring.....do....	3	3	...	4
34 Fuel purchased.....do....	411	401	10	1,157
35 Electric energy purchased.....do....	176	166	10	865
36 Contract work.....do....	19,964	19,672	292	50,352
37 Purchased machinery installed.....do....	5,180	2,350	2,830	18,631
38 Capital expenditures, total.....do....	23,187	19,402	3,785	60,502
39 Development and exploration of mineral property.....do....	12,895	12,652	243	38,592
40 Other construction.....do....	1,744	1,701	43	3,524
41 New machinery and equipment.....do....	3,098	3,034	64	18,129
42 Used plant and equipment.....do....	5,450	2,015	3,435	257
43 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....1,000..	109	92	17	232
44 Per production worker.....	124	120	156	91
45 Prime movers.....1,000..	103	86	17	197
46 Electric motors driven by purchased energy.....do....	6	6	(¹⁵)	35
47 Horsepower rating of electric motors driven by energy generated at the establishment.....do....	(¹⁵)	(¹⁵)	...	11
48 Energy used.....million kwh equivalent..	582	496	86	6,224
49 Produced and used for fuel at same establishment:				
50 Crude petroleum.....1,000 barrels..	...	...	...	25
51 Natural gas.....million cu.ft..	1,204	933	271	16,249
52 Fuels purchased:				
53 Coal.....1,000 short tons..	...	...	...	...
54 Fuel oils.....1,000 barrels..	14	14	...	46
55 Gas (natural and manufactured).....million cu.ft..	346	346	...	2,846
56 Other fuels.....\$1,000..	286	276	10	617
57 Electric energy purchased.....million kwh..	10	10	(¹⁵)	72
58 Electric energy generated and used.....do....	2	2	...	34
59 Water intake.....million gallons..	98	98	...	2,158
60 Per production worker.....do....	0.11	0.13	...	0.85

D Withheld to avoid approximately disclosing figures for individual companies. NA Not available. xxx Not applicable. ¹Represents 240 establishments in the Crude petroleum industry and 10 establishments in the Natural gas industry. ²Represents 522 establishments in the Crude petroleum industry and 1 establishment in the Natural gas industry. ³Represents 15 establishments in the Crude petroleum industry and 1 establishment in the Natural gas industry. ⁴Represents 31 establishments in the Crude petroleum industry and 1 establishment in the Natural gas industry. ⁵Represents 63 establishments in the Crude petroleum industry and 3 establishments in the Natural gas industry. ⁶Represents 20 establishments in the Crude petroleum industry and 1 establishment in the Natural gas industry in South Dakota; and 1 establishment in the Natural gas industry in Iowa. ⁷Represents 7 establishments in Maryland; 5 establishments in Virginia; 7 establishments in Georgia; and 22 establishments in Florida. ⁸Represents 208 establishments in the Crude petroleum industry and 6 establishments in the Natural gas industry.

CRUDE PETROLEUM AND NATURAL GAS

13B-21

THE UNITED STATES BY GEOGRAPHIC DIVISIONS, STATES, AND INDUSTRY: 1954--Continued

see INTRODUCTION)

Mountain--Continued						Pacific				
Colorado ⁹	New Mexico			Utah ¹⁰	Idaho, Arizona, and Nevada ¹¹	Total			California ¹²	Washington and Oregon ¹³
	Total	Crude petroleum industry	Natural gas industry			Total	Crude petroleum industry	Natural gas industry		
153	253	221	33	42	30	626	613	13	624	8
154	261	224	37	42	30	645	632	13	635	10
1,718	9,098	7,927	1,171	96	1	32,395	31,731	664	32,395	...
1,593	7,300	7,207	93	71	1	31,819	31,399	420	31,819	...
125	1,798	720	1,078	25	...	576	332	244	576	...
44,453	73,448	72,917	531	171,880	(17)	355,354	350,916	4,438	355,354	...
(D)	572	246	326	5	...	145	67	78	145	...
66,280	453,099	317,617	135,482	16,694	2	761,597	655,168	106,429	761,597	...
37,392	200,000	192,820	7,180	406	2	574,396	563,903	10,493	574,396	...
28,888	253,099	124,797	128,302	16,288	...	187,201	91,265	95,936	187,201	...
40,391	427,991	293,837	134,154	15,838	...	436,242	366,010	70,232	436,242	...
127,536	236,731	222,491	14,240	176,689	(17)	1,081,525	1,046,871	34,654	1,081,525	...
123,260	201,351	200,027	1,324	174,421	(17)	925,139	913,624	11,515	925,139	...
(D)	1,602	704	898	15	...	480	226	254	480	...
4,130	32,902	20,890	12,012	2,253	...	152,264	129,555	22,709	152,264	...
...	20	20	...	...	...	9	9	...	9	...
(D)	856	850	6	...	...	3,633	3,457	176	3,633	...
107,149	209,219	194,155	15,064	(19)	(19)	1,012,206	982,597	29,609	1,012,679	(19)
2,413	3,419	3,006	413	588	136	17,878	17,385	493	17,762	116
939	2,255	1,975	280	315	82	11,100	10,862	238	11,091	9
1,401	994	895	99	254	44	6,110	5,862	248	6,003	107
73	170	136	34	19	10	668	661	7	668	...
26	55	47	8	4	1	201	200	1	201	...
1,927	4,535	3,975	560	624	167	21,998	21,527	471	21,979	19
884	2,598	2,462	136	81	...	16,260	15,841	419	16,260	...
553	1,053	668	385	320	75	3,127	3,123	4	3,127	...
460	831	828	3	216	92	839	791	48	820	19
30	53	17	36	7	...	1,772	1,772	...	1,772	...
59,354	108,004	95,021	12,983	14,571	5,483	306,142	297,162	8,980	304,874	1,268
4,486	10,232	8,959	1,273	1,578	326	53,773	52,680	1,093	53,728	45
8,511	5,531	5,028	503	1,385	199	41,072	39,677	1,395	40,396	676
11,872	30,166	24,784	5,382	3,912	1,458	74,322	73,005	1,317	74,290	32
15	84	83	1	...	...	152	152	...	152	...
428	656	560	96	336	24	3,118	3,074	44	3,116	2
172	452	452	...	3	...	5,890	5,818	72	5,890	...
33,870	60,883	55,155	5,728	7,357	3,476	127,815	122,756	5,059	127,302	513
12,881	23,108	21,069	2,039	857	366	43,674	42,481	1,193	43,656	18
38,851	87,837	73,767	14,070	5,751	1,583	185,652	183,012	2,640	185,560	92
24,462	60,249	52,078	8,171	5,093	1,522	133,155	131,750	1,405	133,079	76
2,778	4,384	2,357	2,027	264	2	8,904	8,836	68	8,904	...
11,264	21,605	18,955	2,650	394	35	42,141	41,050	1,091	42,125	16
347	1,599	377	1,222	...	24	1,452	1,376	76	1,452	...
120	187	174	13	24	9	1,418	1,370	48	1,417	1
128	83	88	46	76	110	128	126	202	128	111
113	171	158	13	24	9	1,180	1,134	46	1,179	1
7	16	16	...	(15)	...	238	236	2	238	...
3	1	1	...	1	...	19	18	1	19	...
1,857	2,623	2,458	165	231	8	20,750	20,450	300	20,750	(15)
10	15	15	...	...	...	269	269	...	269	...
5,359	6,899	6,663	236	450	2	58,571	57,649	922	58,571	...
...	...	...	...	...	...	1	1	...	1	...
20	14	4	10	8	1	111	111	(15)	111	...
229	993	770	223	...	...	3,276	3,276	...	3,276	...
303	487	458	29	317	19	2,005	1,963	42	2,003	2
9	24	24	...	(15)	...	568	562	6	568	...
7	1	1	...	5	...	46	46	(15)	46	...
354	322	275	47	53	3	5,250	5,230	20	5,250	...
0.38	0.14	0.14	0.17	0.17	0.04	0.47	0.48	0.08	0.47	...

⁹Represents 139 establishments in the Crude petroleum industry and 15 establishments in the Natural gas industry. ¹⁰Represents 39 establishments in the Crude petroleum industry and 3 establishments in the Natural gas industry. ¹¹Represents 1 establishment in Idaho, 15 establishments in Arizona, and 14 establishments in Nevada. Of these establishments, 29 are classified in the Crude petroleum industry and 1 located in Arizona in the Natural gas industry.

¹²Represents 623 establishments in the Crude petroleum industry and 12 establishments in the Natural gas industry. ¹³Represents 9 establishments in the Crude petroleum industry and 1 establishment in the Natural gas industry. ¹⁴See table 5B, footnote 11.

¹⁵Less than one-half of the unit of measure specified. ¹⁶See table 2, footnote 15. ¹⁷Figures for Idaho, Arizona, and Nevada are included with those for Utah. ¹⁸Figures for value of other products are included with those for value of crude petroleum shipped. ¹⁹See table 1, footnote 4.

²⁰See table 2, footnote 5.

Table 4A.—DETAILED STATISTICS FOR THE CRUDE PETROLEUM AND NATURAL

(For explanation of line

Item	All types of operations	Producing operations			
		All producing operations			
		Total	By type of well operated		
			Oil well operations only	Oil and gas well operations	Gas well operations only
1 Number of establishments.....	11,508	10,846	7,847	1,966	1,033
2 Number of wells producing during December 1954, total.....	485,907	485,907	170,651	284,004	31,252
3 Oil wells ¹	419,517	419,517	170,651	248,866	...
4 Gas wells ¹	66,390	66,390	...	35,138	31,252
5 Crude petroleum shipped.....1,000 barrels..	2,173,734	2,173,734	508,839	1,661,611	3,284
6 Field condensate and drips shipped.....do....	25,600	25,600	426	23,519	1,655
7 Natural gas produced, total.....million cu. ft..	10,084,936	10,084,936	435,551	8,328,260	1,321,125
8 From oil wells ¹.....do....	3,415,416	3,415,416	435,551	2,979,865	...
9 From gas wells ¹.....do....	6,669,520	6,669,520	...	5,348,395	1,321,125
10 Natural gas shipped.....do....	7,978,179	7,978,179	305,968	6,487,846	1,184,365
11 Value of shipments, total.....\$1,000..	7,070,097	7,070,097	1,450,799	5,436,083	183,215
12 Crude petroleum.....do....	6,019,084	6,019,084	1,386,594	4,623,359	9,131
13 Field condensate and drips.....do....	77,140	77,140	1,284	70,948	4,908
14 Natural gas.....do....	938,884	938,884	49,587	721,824	167,473
15 Other products.....do....	276	276	65	176	35
16 Amount received or due for services.....do....	34,713	34,713	13,269	19,776	1,668
17 Value added in mining.....do....	6,129,213	6,194,802	1,138,685	4,889,186	166,931
18 Number of persons engaged, total.....	185,822	183,079	52,808	122,582	7,689
19 Production and development workers.....	109,792	108,769	32,970	70,972	4,827
20 All other employees.....	62,714	61,421	10,057	49,801	1,563
21 Proprietors and firm members.....	13,316	12,889	9,781	1,809	1,299
22 Performing manual labor.....	3,886	3,741	2,791	655	295
23 Man-hours worked by production and development workers, total.....1,000..	216,581	214,748	60,124	145,383	9,241
24 Operating and maintaining wells.....do....	156,906	156,833	45,069	106,093	5,671
25 Drilling wells and rig building.....do....	36,132	35,429	11,085	21,944	2,400
26 Exploration work (except drilling).....do....	15,655	14,660	2,123	12,277	260
27 Other work.....do....	7,888	7,826	1,847	5,069	910
28 Principal expenses designated below, total.....\$1,000..	3,054,030	2,984,778	722,101	2,181,307	81,370
29 Wages of production and development workers.....do....	459,955	455,957	112,037	326,767	17,153
30 Salaries of all other employees.....do....	375,785	368,569	55,212	305,646	7,711
31 Supplies.....do....	682,421	672,179	178,847	471,708	21,624
32 Gas purchased for gas lift and repressuring.....do....	10,261	10,261	2,023	8,209	29
33 Fuel purchased.....do....	36,177	35,538	12,452	22,282	804
34 Electric energy purchased.....do....	30,624	30,589	10,410	20,035	144
35 Contract work.....do....	1,458,807	1,411,685	351,120	1,026,660	33,905
36 Purchased machinery installed.....do....	621,048	597,892	148,915	436,597	12,380
37 Capital expenditures, total.....do....	1,898,454	1,882,849	391,653	1,438,594	52,602
38 Development and exploration of mineral property.....do....	1,206,214	1,194,946	216,332	947,213	31,401
39 Other construction.....do....	98,229	97,035	11,038	80,803	5,194
40 New machinery and equipment.....do....	558,950	556,310	151,607	391,532	13,171
41 Used plant and equipment.....do....	35,061	34,558	12,676	19,046	2,836
42 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....1,000..	9,123	9,032	2,685	6,130	217
43 Per production worker.....do....	83	83	81	86	45
44 Prime movers.....do....	7,962	7,872	2,279	5,382	211
45 Electric motors driven by purchased energy.....do....	1,161	1,160	406	748	6
46 Horsepower rating of electric motors driven by energy generated at the establishment.....do....	96	96	28	68	(³)
47 Energy used.....million kwh equivalent..	141,655	141,358	28,368	112,348	642
48 Fuels produced and used for fuel at same establishment:					
49 Crude petroleum.....1,000 barrels..	664	664	287	377	...
50 Natural gas.....million cu. ft..	345,040	345,040	55,335	288,754	951
51 Fuels purchased:					
52 Coal.....1,000 short tons..	2	2	(³)	2	(³)
53 Fuel oils.....1,000 barrels..	1,542	1,517	608	885	24
54 Gas (natural and manufactured).....million cu. ft..	78,702	78,253	23,032	54,657	564
55 Other fuels.....\$1,000..	20,652	20,182	7,678	12,007	497
56 Electric energy purchased.....million kwh..	2,332	2,329	807	1,512	10
57 Electric energy generated and used.....do....	260	260	64	194	2
58 Water intake.....million gallons..	82,408	82,213	19,903	62,151	159
59 Per production worker.....do....	0.75	0.76	0.60	0.88	0.03
60 Wells drilled and completed except those drilled on contract for others:					
61 Number drilled, total.....	49,233	48,057	21,422	24,917	1,718
62 Drilled on contract for reporting companies.....	37,926	36,951	15,915	19,831	1,205
63 Drilled by reporting companies for own account.....	11,307	11,106	5,507	5,086	513
64 Footage of wells drilled, total.....1,000 ft..	199,987	194,989	67,547	120,611	6,831
65 Drilled on contract for reporting companies.....do....	157,232	152,919	52,442	95,943	4,534
66 Drilled by reporting companies for own account.....do....	42,755	42,070	15,105	24,668	2,297
67 Cost of drilling and equipping wells.....\$1,000..	2,230,859	2,164,901	585,639	1,516,392	62,870
68 Wells drilled and completed on contract for others:					
69 Number drilled.....	1,726	1,726	1,115	549	62
70 Footage of wells drilled on contract.....1,000 ft..	5,432	5,432	2,869	2,265	298
71 Costs borne by drilling contractor in drilling and equipping wells.....\$1,000..	17,636	17,636	8,491	8,240	905

¹See table 5B, footnote 11.²See table 1, footnote 4.³Less than one-half of the unit of measure specified.

GAS INDUSTRIES IN THE UNITED STATES, BY TYPE OF OPERATION: 1954

(captions, see INTRODUCTION)

Producing operations—Continued													Non-producing operations
All producing operations—Continued				Operating, maintaining, and drilling wells				Operating and maintaining wells only					
By type of contract work				Total	Oil well operations only	Oil and gas well operations	Gas well operations only	Total	Oil well operations only	Oil and gas well operations	Gas well operations only		
No contract work	Including contract work performed by others only	Including contract work performed for others only	Including contract work performed by and for others										
3,774	6,261	171	640	5,298	3,545	1,477	276	5,548	4,302	489	757	662	
63,486	323,008	4,873	94,540	399,661	111,779	266,235	21,647	86,246	58,872	17,769	9,605	...	
51,883	276,270	4,270	87,094	345,776	111,779	233,997	...	73,741	58,872	14,869	...	...
11,603	46,738	603	7,446	53,885	...	32,238	21,647	12,505	...	2,900	9,605	...	
57,005	1,637,982	6,185	472,562	2,066,924	421,637	1,642,163	3,124	106,810	87,202	19,448	160	...	
349	21,059	131	4,061	25,152	417	23,400	1,335	448	9	119	320	...	
492,203	7,289,035	48,242	2,255,456	9,375,509	370,945	8,226,740	777,824	709,427	64,606	101,520	543,301	...	
37,883	2,467,221	4,549	905,763	3,321,204	370,945	2,950,259	...	94,212	64,606	29,606	...	...
454,320	4,821,814	43,693	1,349,693	6,054,305	...	5,276,481	777,824	615,215	...	71,914	543,301	...	
432,983	5,837,180	44,503	1,663,513	7,352,943	258,816	6,397,846	696,281	625,236	47,152	90,000	488,084	...	
189,822	5,295,292	27,250	1,557,733	6,710,888	1,197,767	5,371,479	141,642	359,209	253,032	64,604	41,573	...	
152,274	4,540,206	16,175	1,310,429	5,716,800	1,138,654	4,569,462	8,684	302,284	247,940	53,897	447	...	
873	63,633	402	12,232	75,954	1,259	70,595	4,100	1,186	25	353	808	...	
36,638	691,244	5,785	205,217	885,042	45,961	711,845	127,236	53,842	3,626	9,979	40,237	...	
37	209	...	30	239	28	176	35	37	37	...	...	...
...	...	4,888	29,825	32,853	11,865	19,401	1,587	1,860	1,404	375	81	...	
167,826	4,594,126	24,423	1,408,427	5,875,103	915,423	4,831,837	127,843	319,699	223,262	57,349	39,088	(2)	
16,502	126,852	1,690	38,035	160,482	36,306	119,346	4,830	22,597	16,502	3,236	2,859	2,743	
9,878	73,928	1,336	23,627	96,340	24,097	68,755	3,488	12,429	8,873	2,217	1,339	1,023	
1,608	45,895	130	13,788	58,818	8,275	49,422	1,121	2,603	1,782	379	442	1,293	
5,016	7,029	224	620	5,324	3,934	1,169	221	7,565	5,847	640	1,078	427	
1,194	2,183	106	258	2,071	1,501	481	89	1,670	1,290	174	206	145	
16,406	147,743	2,585	48,014	194,968	46,624	141,173	7,171	19,780	13,500	4,210	2,070	1,833	
12,817	108,845	1,341	33,830	137,772	32,055	101,962	3,755	19,061	13,014	4,131	1,916	73	
3,216	22,025	1,066	9,122	35,353	11,074	21,917	2,362	76	11	27	38	703	
47	11,952	13	2,648	14,478	1,971	12,267	240	182	152	10	20	995	
326	4,921	165	2,414	7,365	1,524	5,027	814	461	323	42	96	62	
66,678	2,350,495	9,687	557,918	2,898,185	660,739	2,164,921	72,525	86,593	61,362	16,386	8,845	69,252	
27,334	319,463	4,697	104,463	422,564	89,181	319,879	13,504	33,393	22,856	6,888	3,649	3,998	
6,985	278,485	775	82,324	358,128	48,484	303,945	5,699	10,441	6,728	1,701	2,012	7,216	
27,822	519,904	3,649	120,804	648,268	161,397	467,563	19,308	23,911	17,450	4,145	2,316	10,242	
298	8,988	1	974	9,554	1,562	7,992	...	707	461	217	29	...	
2,708	23,870	447	8,513	32,294	9,813	21,823	658	3,244	2,639	459	146	639	
1,531	21,506	118	7,434	27,995	8,136	19,789	70	2,594	2,274	246	74	35	
...	1,178,279	...	233,406	1,399,382	342,166	1,023,930	33,286	12,303	8,954	2,730	619	47,122	
9,293	472,811	2,028	113,760	589,849	143,186	435,122	11,541	8,043	5,729	1,475	839	23,156	
19,656	1,524,192	3,416	335,585	1,871,557	383,916	1,436,577	51,064	11,292	7,737	2,017	1,538	15,605	
6,853	991,430	1,232	195,431	1,192,755	214,644	946,743	31,368	2,191	1,688	470	33	11,268	
794	74,507	110	21,624	95,947	10,704	80,369	4,874	1,088	334	434	320	1,194	
11,051	428,298	1,841	115,120	550,798	147,937	390,591	12,270	5,512	3,670	941	901	2,640	
958	29,957	233	3,410	32,057	10,631	18,874	2,552	2,501	2,045	172	284	503	
486	6,515	98	1,933	8,181	2,105	5,914	162	851	580	216	55	91	
49	88	73	82	85	87	86	46	68	65	97	41	89	
429	5,696	89	1,658	7,123	1,785	5,178	160	749	494	204	51	90	
57	819	9	275	1,058	320	736	2	102	86	12	4	1	
2	76	(3)	18	93	25	68	(3)	3	3	...	...	...
5,754	67,802	462	67,340	132,332	23,477	108,307	548	9,026	4,891	4,041	94	297	
17	534	...	113	620	243	377	...	44	44	...	...	...
12,250	141,216	420	191,154	327,486	49,481	277,054	951	17,554	5,854	11,700	...	...
...	...	1	1	1	(3)	1	(3)	1	(3)	1	(3)	...	
74	1,033	27	383	1,422	543	856	23	95	65	29	1	25	
4,081	54,219	699	19,254	69,301	15,280	53,665	356	8,952	7,752	992	208	449	
1,891	13,427	217	4,647	18,353	6,185	11,763	405	1,829	1,493	244	92	470	
101	1,636	10	582	2,161	662	1,494	5	168	145	18	5	3	
2	223	1	34	255	59	194	2	5	5	...	...	...
1,705	57,443	105	22,960	78,984	17,246	61,581	157	3,229	2,657	570	2	195	
0.17	0.78	0.08	0.97	0.82	0.72	0.90	0.05	0.26	0.30	0.26	(3)	0.19	
1,748	37,422	450	8,437	48,057	21,422	24,917	1,718	...	...	...	...	1,176
...	31,331	...	5,620	36,951	15,915	19,831	1,205	...	...	...	...	975
1,748	6,091	450	2,817	11,106	5,507	5,086	513	...	...	...	...	201
4,239	156,149	1,039	33,562	194,989	67,547	120,611	6,831	...	...	...	...	4,998
...	130,594	...	22,325	152,919	52,442	95,943	4,534	...	...	...	...	4,313
4,239	25,555	1,039	11,237	42,070	15,105	24,668	2,297	...	...	...	...	685
30,259	1,756,363	6,294	371,985	2,164,901	585,639	1,516,392	62,870	...	...	...	...	65,958
...	...	328	1,398	1,726	1,115	549	62	...	...	...	...	...
...	...	971	4,461	5,432	2,869	2,265	298	...	...	...	...	...
...	...	2,872	14,764	17,636	8,491	8,240	905	...	...	...	...	...

Table 4B.—DETAILED STATISTICS FOR PRODUCING ESTABLISHMENTS IN THE CRUDE PETROLEUM AND NATURAL GAS INDUSTRIES IN THE UNITED STATES,
(For explanation of line captions,

	Item	United States			
		Total	Oil well operations only	Oil and gas well operations	Gas well operations only
1	Number of establishments.....	10,846	7,847	1,966	1,033
2	Number of wells producing during December 1954, total.....	485,907	170,651	284,004	31,252
3	Oil wells ¹¹	419,517	170,651	248,866	...
4	Gas wells ¹¹	66,390	...	35,138	31,252
5	Crude petroleum shipped.....1,000 barrels..	2,173,734	508,839	1,661,611	3,284
6	Field condensate and drips shipped.....do...	25,600	426	23,519	1,655
7	Natural gas produced, total.....million cu.ft..	10,084,936	435,551	8,328,260	1,321,125
8	From oil wells ¹¹.....do...	3,415,416	435,551	2,979,865	...
9	From gas wells ¹¹.....do...	6,669,520	...	5,348,395	1,321,125
10	Natural gas shipped.....do...	7,978,179	305,968	6,487,846	1,184,365
11	Value of shipments, total.....\$1,000..	7,070,097	1,450,799	5,436,083	183,215
12	Crude petroleum.....do...	6,019,084	1,386,594	4,623,359	9,131
13	Field condensate and drips.....do...	77,140	1,284	70,948	4,908
14	Natural gas.....do...	938,884	49,587	721,824	167,473
15	Other products.....do...	276	65	176	35
16	Amount received or due for services.....do...	34,713	13,269	19,776	1,668
17	Value added in mining.....do...	6,194,802	1,138,685	4,889,186	166,931
18	Number of persons engaged, total.....	¹⁷ 183,079	52,808	¹⁷ 122,582	7,689
19	Production and development workers.....	108,769	32,970	70,972	4,827
20	All other employees.....	¹⁷ 61,421	10,057	¹⁷ 49,801	1,563
21	Proprietors and firm members.....	12,889	9,781	1,809	1,299
22	Performing manual labor.....	3,741	2,791	655	295
23	Man-hours worked by production and development workers, total.....1,000..	214,748	60,124	145,383	9,241
24	Operating and maintaining wells.....do...	156,833	45,069	106,093	5,671
25	Drilling wells and rig building.....do...	35,429	11,085	21,944	2,400
26	Exploration work (except drilling).....do...	14,660	2,123	12,277	260
27	Other work.....do...	7,826	1,847	5,069	910
28	Principal expenses designated below, total.....\$1,000..	¹⁷ 2,984,778	722,101	¹⁷ 2,181,307	81,370
29	Wages of production and development workers.....do...	455,957	112,037	326,767	17,153
30	Salaries of all other employees.....do...	¹⁷ 368,569	55,212	¹⁷ 305,646	7,711
31	Supplies.....do...	672,179	178,847	471,708	21,624
32	Gas purchased for gas lift and repressuring.....do...	10,261	2,023	8,209	29
33	Fuel purchased.....do...	35,538	12,452	22,282	804
34	Electric energy purchased.....do...	30,589	10,410	20,035	144
35	Contract work.....do...	1,411,685	351,120	1,026,660	33,905
36	Purchased machinery installed.....do...	597,892	148,915	436,597	12,380
37	Capital expenditures, total.....do...	1,882,849	391,653	1,438,594	52,602
38	Development and exploration of mineral property.....do...	1,194,946	216,332	947,213	31,401
39	Other construction.....do...	97,035	11,038	80,803	5,194
40	New machinery and equipment.....do...	556,310	151,607	391,532	13,171
41	Used plant and equipment.....do...	34,558	12,676	19,046	2,836
42	Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....1,000..	9,032	2,685	6,130	217
43	Per production worker.....do...	83	81	86	45
44	Prime movers.....1,000..	7,872	2,279	5,382	211
45	Electric motors driven by purchased energy.....do...	1,160	406	748	6
46	Horsepower rating of electric motors driven by energy generated at the establishment.....do...	96	28	68	(¹⁰)
47	Energy used.....million kwh equivalent..	141,358	28,368	112,348	642
48	Produced and used for fuel at same establishment:				
49	Crude petroleum.....1,000 barrels..	664	287	377	...
50	Natural gas.....million cu.ft..	345,040	55,335	288,754	951
51	Fuels purchased:				
52	Coal.....1,000 short tons..	2	(¹⁰)	2	(¹⁰)
53	Fuel oils.....1,000 barrels..	1,517	608	885	24
54	Gas (natural and manufactured).....million cu.ft..	78,253	23,032	54,657	564
55	Other fuels.....\$1,000..	20,182	7,678	12,007	497
56	Electric energy purchased.....million kwh..	2,329	807	1,512	10
57	Electric energy generated and used.....do...	260	64	194	2
58	Water intake.....million gallons..	82,213	19,903	62,151	159
59	Per production worker.....do...	0.76	0.60	0.88	0.03
60	Wells drilled and completed except those drilled on contract for others:				
61	Number drilled, total.....	48,057	21,422	24,917	1,718
62	Drilled on contract for reporting companies.....	36,951	15,915	19,831	1,205
63	Drilled by reporting companies for own account.....	11,106	5,507	5,086	513
64	Footage of wells drilled, total.....1,000 ft..	194,989	67,547	120,611	6,831
65	Drilled on contract for reporting companies.....do...	152,919	52,442	95,943	4,534
66	Drilled by reporting companies for own account.....do...	42,070	15,105	24,668	2,297
67	Cost of drilling and equipping wells.....\$1,000..	2,164,901	585,639	1,516,392	62,870
68	Wells drilled and completed on contract for others:				
69	Number drilled.....	1,726	1,115	549	62
70	Footage of wells drilled on contract.....1,000 ft..	5,432	2,869	2,265	298
71	Costs borne by drilling contractor in drilling and equipping wells.....\$1,000..	17,636	8,491	8,240	905

See footnotes at end of table.

BY GEOGRAPHIC DIVISIONS, STATES, AND TYPE OF WELLS OPERATED: 1954

see INTRODUCTION)

Middle Atlantic											
Total				New York				Pennsylvania			
Total	Oil well operations only	Oil and gas well operations	Gas well operations only	Total	Oil well operations only	Oil and gas well operations	Gas well operations only	Total	Oil well operations only	Oil and gas well operations	Gas well operations only
1,148	785	128	235	255	219	15	21	893	566	113	214
82,757	40,889	30,155	11,713	16,741	11,596	3,980	1,165	66,016	29,293	26,175	10,548
65,190	40,889	24,301	11,713	15,518	11,596	3,922	...	49,672	29,293	20,379	...
17,567	...	5,854	11,713	1,223	...	58	1,165	16,344	...	5,796	10,548
11,261	6,502	4,746	13	2,581	1,879	701	1	8,680	4,623	4,045	12
6	2	4	(10)	...	...	...	...	6	2	4	(10)
137,748	2,311	30,797	104,640	3,890	677	326	2,887	133,858	1,634	30,471	101,753
3,249	2,311	938	...	718	677	41	...	2,531	1,634	897	...
134,499	...	29,859	104,640	3,172	...	285	2,887	131,327	...	29,574	101,753
129,257	423	29,175	99,659	2,761	10	237	2,514	126,496	413	28,938	97,145
77,379	22,616	24,646	30,117	10,229	6,520	2,433	1,276	67,150	16,096	22,213	28,841
38,666	22,363	16,258	45	8,869	6,495	2,371	3	29,797	15,868	13,887	42
20	5	14	1	...	...	...	...	20	5	14	1
37,865	146	8,258	29,461	1,337	2	62	1,273	36,528	144	8,196	28,188
23	23	...	...	...	...	...	...	23	23	...	...
805	79	116	610	23	23	...	...	782	56	116	610
65,833	17,452	21,206	27,175	7,978	5,046	2,003	929	57,855	12,406	19,203	26,246
9,509	4,699	2,690	2,120	2,856	2,059	535	262	6,653	2,640	2,155	1,858
5,620	2,243	2,022	1,355	1,021	588	233	200	4,599	1,655	1,789	1,155
2,063	1,092	497	474	1,316	981	281	54	747	111	216	420
1,826	1,364	171	291	519	490	21	8	1,307	874	150	283
537	373	67	97	126	110	8	8	411	263	59	89
10,764	3,867	4,184	2,713	1,936	1,066	495	375	8,828	2,801	3,689	2,338
9,025	3,651	3,815	1,559	1,782	1,006	482	294	7,243	2,645	3,333	1,265
969	178	229	562	135	47	13	75	834	131	216	487
20	5	...	15	6	...	...	6	14	5	...	9
750	33	140	577	13	13	...	...	737	20	140	577
54,215	20,567	15,659	17,989	16,083	10,601	3,235	2,247	38,132	9,966	12,424	15,742
17,912	6,198	6,909	4,805	3,267	1,702	826	739	14,645	4,496	6,083	4,066
11,699	7,236	2,765	1,698	8,416	6,385	1,796	235	3,283	851	969	1,463
9,260	3,496	2,172	3,592	2,782	1,499	229	1,054	6,478	1,997	1,943	2,538
165	45	112	8	15	1	14	...	150	44	98	8
1,534	808	536	190	366	298	64	4	1,168	510	472	186
1,615	741	821	53	228	111	114	3	1,387	630	707	50
12,030	2,043	2,344	7,643	1,009	605	192	212	11,021	1,438	2,152	7,431
5,910	1,121	1,649	3,140	835	361	174	300	5,075	760	1,475	2,840
18,968	3,090	4,194	11,684	2,984	1,401	357	1,226	15,984	1,689	3,837	10,458
9,831	1,357	2,214	6,260	981	561	168	252	8,850	796	2,046	6,008
2,086	400	512	1,174	792	389	9	394	1,294	11	503	780
6,171	1,076	1,165	3,930	1,048	301	167	580	5,123	775	998	3,350
880	257	303	320	163	150	13	...	717	107	290	320
369	152	138	79	65	40	12	13	304	112	126	66
66	68	68	58	64	68	52	65	66	68	70	57
307	124	106	77	55	33	9	13	252	91	97	64
62	28	32	2	10	7	3	...	52	21	29	2
(10)	...	(10)	...	...	...	...	...	(10)	...	(10)	...
2,160	1,095	821	244	476	407	68	1	1,684	688	753	243
1	1	...	...	...	...	...	...	1	1	...	...
3,962	1,814	1,556	592	794	714	80	...	3,168	1,100	1,476	592
(10)	...	(10)	...	(10)	...	(10)	...	(10)	...	(10)	...
21	16	5	...	4	4	...	...	17	12	5	...
2,267	1,315	844	108	635	525	110	...	1,632	790	734	108
412	236	79	97	60	51	5	4	352	185	74	93
102	44	54	4	14	6	8	(10)	88	38	46	4
1	...	1	...	...	...	...	...	1	...	1	...
9,379	4,072	5,300	7	1,875	1,154	718	3	7,504	2,918	4,582	4
1.67	1.82	2.62	0.01	1.84	1.96	3.08	0.02	1.63	1.76	2.56	(10)
1,346	656	346	344	403	301	82	20	943	355	264	324
1,028	506	247	275	334	256	61	17	694	250	186	258
318	150	99	69	69	45	21	3	249	105	78	66
3,237	949	698	1,590	553	384	126	43	2,684	565	572	1,547
2,585	756	539	1,290	457	326	92	39	2,128	430	447	1,251
652	193	159	300	96	58	34	4	556	135	125	296
20,683	3,388	3,101	14,194	1,715	1,097	328	290	18,968	2,291	2,773	13,904
38	18	2	18	6	6	...	...	32	12	2	18
135	20	(D)	(D)	7	7	...	...	128	13	(D)	(D)
451	25	(D)	(D)	8	8	...	...	443	17	(D)	(D)

Table 4B.—DETAILED STATISTICS FOR PRODUCING ESTABLISHMENTS IN THE CRUDE PETROLEUM AND NATURAL GAS INDUSTRIES IN THE UNITED STATES,
(For explanation of line captions,

Item	East North Central					
	Total				Ohio	
	Total	Oil well operations only	Oil and gas well operations	Gas well operations only	Total	Oil well operations only
1 Number of establishments.....	1,423	1,093	215	115	508	277
2 Number of wells producing during December 1954, total.....	45,900	23,918	18,635	3,347	13,235	4,932
3 Oil wells ¹¹	40,973	23,918	17,055	...	8,786	4,932
4 Gas wells ¹¹	4,927	...	1,580	3,347	4,449	...
5 Crude petroleum shipped.....1,000 barrels..	83,752	48,343	35,402	7	2,869	1,264
6 Field condensate and drips shipped.....do....	9	...	9	...	2	...
7 Natural gas produced, total.....million cu.ft..	48,571	7,868	24,876	15,827	25,011	1,163
8 From oil wells ¹¹.....do....	20,825	7,868	12,957	...	2,578	1,163
9 From gas wells ¹¹.....do....	27,746	...	11,919	15,827	22,433	...
10 Natural gas shipped.....do....	34,867	3,546	15,739	15,582	23,823	1,141
11 Value of shipments, total.....\$1,000..	259,086	142,688	109,465	6,933	16,665	3,757
12 Crude petroleum.....do....	245,357	140,077	105,261	19	7,870	3,479
13 Field condensate and drips.....do....	19	...	19	...	4	...
14 Natural gas.....do....	10,507	462	3,169	6,876	8,517	235
15 Other products.....do....	64	18	46	...	1	1
16 Amount received or due for services.....do....	3,139	2,131	970	38	273	42
17 Value added in mining.....do....	208,384	106,894	95,109	6,381	12,538	2,679
18 Number of persons engaged, total.....	14,101	7,279	6,068	754	4,098	1,041
19 Production and development workers.....	8,804	4,811	3,520	473	1,607	521
20 All other employees.....	3,495	1,089	2,284	122	1,696	62
21 Proprietors and firm members.....	1,802	1,379	264	159	795	458
22 Performing manual labor.....	471	340	93	38	191	101
23 Man-hours worked by production and development workers, total.....1,000..	16,209	8,439	7,089	681	2,510	657
24 Operating and maintaining wells.....do....	13,100	6,354	6,127	619	2,119	554
25 Drilling wells and rig building.....do....	2,469	1,751	679	39	309	79
26 Exploration work (except drilling).....do....	336	101	217	18	21	...
27 Other work.....do....	304	233	66	5	61	24
28 Principal expenses designated below, total.....\$1,000..	135,224	72,959	58,926	3,339	21,952	3,608
29 Wages of production and development workers.....do....	32,008	15,993	14,683	1,332	3,803	885
30 Salaries of all other employees.....do....	18,243	5,110	12,659	474	9,019	176
31 Supplies.....do....	27,279	15,868	10,963	448	3,069	1,202
32 Gas purchased for gas lift and repressuring.....do....	25	21	4	...	9	5
33 Fuel purchased.....do....	2,354	1,506	824	24	149	48
34 Electric energy purchased.....do....	2,761	1,638	1,122	1	67	31
35 Contract work.....do....	52,554	32,823	18,671	1,060	5,836	1,261
36 Purchased machinery installed.....do....	27,356	17,730	9,416	210	2,941	923
37 Capital expenditures, total.....do....	61,627	33,792	26,644	1,191	7,944	2,392
38 Development and exploration of mineral property.....do....	29,827	15,564	13,333	930	4,049	1,186
39 Other construction.....do....	4,760	1,480	3,247	33	94	25
40 New machinery and equipment.....do....	25,158	15,338	9,598	222	3,363	805
41 Used plant and equipment.....do....	1,882	1,410	466	6	438	376
42 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....1,000..	569	327	232	10	81	44
43 Per production worker.....	65	68	66	21	50	84
44 Prime movers.....do....	465	262	193	10	76	40
45 Electric motors driven by purchased energy.....do....	104	65	39	...	5	4
46 Horsepower rating of electric motors driven by energy generated at the establishment.....do....	12	6	6	...	(10)	...
47 Energy used.....million kwh equivalent..	3,158	1,768	1,374	16	193	19
48 Produced and used for fuel at same establishment:						
49 Crude petroleum.....1,000 barrels..	36	9	27	...	1	1
Natural gas.....million cu.ft..	6,140	3,004	3,136	...	424	...
Fuels purchased:						
50 Coal.....1,000 short tons..	(10)	...	(10)	...	...	...
51 Fuel oils.....1,000 barrels..	119	102	17	...	2	...
52 Gas (natural and manufactured).....million cu.ft..	1,319	1,000	275	44	81	17
53 Other fuels.....\$1,000..	1,699	1,013	675	11	114	42
54 Electric energy purchased.....million kwh..	174	94	80	(10)	4	2
55 Electric energy generated and used.....do....	28	16	12	...	(10)	...
56 Water intake.....million gallons..	8,760	2,633	6,127	...	270	150
57 Per production worker.....do....	1.00	0.55	1.74	...	0.17	0.29
58 Wells drilled and completed except those drilled on contract for others:						
59 Number drilled, total.....	5,087	3,333	1,586	168	898	218
60 Drilled on contract for reporting companies.....	3,724	2,335	1,246	143	745	184
61 Drilled by reporting companies for own account.....	1,363	998	340	25	153	34
62 Footage of wells drilled, total.....1,000 ft..	11,899	7,814	3,697	388	2,029	412
63 Drilled on contract for reporting companies.....do....	8,950	5,551	3,048	351	1,733	350
64 Drilled by reporting companies for own account.....do....	2,949	2,263	649	37	296	62
65 Cost of drilling and equipping wells.....\$1,000..	84,545	55,302	28,069	1,174	10,619	2,362
66 Wells drilled and completed on contract for others:						
67 Number drilled.....	235	187	47	1	21	5
Footage of wells drilled on contract.....1,000 ft..	508	414	(D)	(D)	40	(D)
Costs borne by drilling contractor in drilling and equipping wells.....\$1,000..	1,329	1,002	(D)	(D)	125	(D)

See footnotes at end of table.

BY GEOGRAPHIC DIVISIONS, STATES, AND TYPE OF WELLS OPERATED: 1954—Continued

see INTRODUCTION)

East North Central—Continued											
Ohio—Continued		Indiana			Illinois			Michigan			
Oil and gas well operations	Gas well operations only	Total	Oil well operations only	Oil and gas well operations and Gas well operations only ¹	Total	Oil well operations only	Oil and gas well operations and Gas well operations only ²	Total	Oil well operations only	Oil and gas well operations	Gas well operations only
136	95	238	205	33	507	493	14	170	118	41	11
5,226	3,077	3,717	2,970	747	24,896	14,284	10,612	4,052	1,732	2,248	72
3,854	...	3,482	2,970	512	24,882	14,284	10,598	3,823	1,732	2,091	...
1,372	3,077	235	...	235	14	...	14	229	...	157	72
1,598	7	8,761	7,173	1,588	60,976	35,197	25,779	11,146	4,709	6,437	...
2	...	...	...	...	1	...	1	6	...	6	...
10,102	13,746	2,271	867	1,404	10,846	5,523	5,323	10,443	315	9,110	1,018
1,415	...	985	867	118	10,754	5,523	5,231	6,508	315	6,193	...
8,687	13,746	1,286	...	1,286	92	...	92	3,935	...	2,917	1,018
8,936	13,746	1,659	393	1,266	3,563	1,804	1,759	5,822	208	4,841	773
6,531	6,377	26,188	21,206	4,982	182,138	104,605	77,533	34,095	13,120	20,713	262
4,372	19	25,594	20,976	4,618	179,820	102,665	77,155	32,073	12,957	19,116	...
4	...	...	...	...	4	...	4	11	...	11	...
1,937	6,345	362	26	336	463	179	284	1,165	22	906	237
...	...	8	8	...	55	9	46	...	...	...	...
218	13	224	196	28	1,796	1,752	44	846	141	680	25
3,946	5,913	20,104	17,513	2,591	151,053	76,617	74,436	24,689	10,085	14,417	187
2,388	669	1,444	1,301	143	7,031	4,304	2,727	1,528	633	846	49
674	412	800	700	100	5,245	3,161	2,084	1,152	429	692	31
1,520	114	422	411	11	1,171	534	637	206	82	116	8
194	143	222	190	32	615	609	6	170	122	38	10
60	30	45	34	11	174	169	5	61	36	18	7
1,227	626	1,300	1,126	174	10,110	5,902	4,208	2,289	754	1,488	47
995	570	988	840	148	8,162	4,343	3,819	1,831	617	1,172	42
192	38	235	220	15	1,628	1,366	262	297	86	211	...
8	13	36	31	5	171	45	126	108	25	78	5
32	5	41	35	6	149	148	1	53	26	27	...
15,280	3,064	13,695	9,631	4,064	80,514	53,836	26,678	19,063	5,884	12,938	241
1,726	1,192	2,414	2,143	271	20,821	11,450	9,371	4,970	1,515	3,330	125
8,387	456	2,216	2,175	41	5,964	2,348	3,616	1,044	411	615	18
1,488	379	3,232	2,232	1,000	15,747	11,155	4,592	5,231	1,279	3,898	54
4	...	2	2	...	14	14	...	...	...	...	...
82	19	319	260	59	1,548	1,074	474	338	124	210	4
36	...	306	263	43	2,231	1,244	987	157	100	56	1
3,557	1,018	5,206	2,556	2,650	34,189	26,551	7,638	7,323	2,455	4,829	39
1,814	204	2,059	1,528	531	19,327	14,092	5,235	3,029	1,187	1,836	6
4,396	1,156	5,040	3,148	1,892	41,971	26,142	15,829	6,672	2,110	4,533	29
1,950	913	2,504	1,295	1,209	19,721	12,370	7,351	3,553	713	2,824	16
47	22	283	278	5	4,278	1,167	3,111	105	10	89	6
2,340	218	2,146	1,473	673	16,899	11,915	4,984	2,750	1,145	1,601	4
59	3	107	102	5	1,073	690	383	264	242	19	3
30	7	54	48	6	330	201	129	104	34	67	3
45	17	68	69	60	63	64	62	90	79	97	97
29	7	39	34	5	252	158	94	98	30	65	3
1	...	15	14	1	78	43	35	6	4	2	...
(10)	...	2	2	...	10	4	6	(10)	...	(10)	...
159	15	306	263	43	2,048	1,415	633	611	71	539	1
...	...	3	3	...	32	5	27	...	...	...	...
424	...	364	274	90	3,830	2,630	1,200	1,522	100	1,422	...
...	...	...	...	...	(10)	...	(10)	(10)	...	(10)	...
2	...	16	14	2	87	86	1	14	2	12	...
20	44	317	315	2	765	656	109	156	12	144	...
66	6	189	151	38	1,146	707	439	250	113	133	4
2	...	17	15	2	145	72	73	8	5	3	(10)
(10)	...	4	4	...	24	12	12	(10)	...	(10)	...
120	...	590	524	66	7,499	1,682	5,817	401	277	124	...
0.18	...	0.74	0.75	0.66	1.43	0.53	2.79	0.35	0.65	0.18	...
521	159	709	389	320	3,007	2,505	502	473	221	251	1
419	142	512	217	295	2,109	1,783	326	358	151	206	1
102	17	197	172	25	898	722	176	115	70	45	...
1,236	381	1,349	817	532	7,041	5,981	1,060	1,480	604	1,876	(18)
1,033	350	938	444	494	5,087	4,276	811	1,192	481	1,671	(18)
203	31	411	373	38	1,954	1,705	249	288	123	165	63
7,110	1,147	8,157	4,484	3,673	52,144	43,351	8,793	13,625	5,105	1,852	(18)
15	1	18	16	2	146	142	4	50	24	26	...
34	(D)	33	(D)	(D)	340	(D)	(D)	95	(D)	(D)	...
113	(D)	132	(D)	(D)	826	(D)	(D)	246	(D)	(D)	...

Table 4B.—DETAILED STATISTICS FOR PRODUCING ESTABLISHMENTS IN THE CRUDE PETROLEUM AND NATURAL GAS INDUSTRIES IN THE UNITED STATES,
(For explanation of line captions,

Item	West North Central			
	Total			
	Total	Oil well operations only	Oil and gas well operations only	Gas well operations only
1 Number of establishments.....	918	704	168	46
2 Number of wells producing during December 1954, total.....	38,382	15,319	21,502	1,561
3 Oil wells ¹¹	34,118	15,319	18,799	...
4 Gas wells ¹¹	4,264	...	2,703	1,561
5 Crude petroleum shipped.....1,000 barrels..	121,122	43,539	76,510	1,073
6 Field condensate and drips shipped.....do....	21	21	...	(10)
7 Natural gas produced, total.....million cu.ft..	401,172	6,688	258,155	136,329
8 From oil wells ¹¹.....do....	18,259	6,688	11,571	...
9 From gas wells ¹¹.....do....	382,913	...	246,584	136,329
10 Natural gas shipped.....do....	392,636	4,101	252,269	136,266
11 Value of shipments, total.....\$1,000..	382,708	116,253	247,260	19,195
12 Crude petroleum.....do....	330,870	113,937	213,948	2,985
13 Field condensate and drips.....do....	64	63	...	1
14 Natural gas.....do....	46,879	199	30,492	15,188
15 Other products.....do....	...	...	...	...
16 Amount received or due for services.....do....	4,895	2,054	2,820	21
17 Value added in mining.....do....	300,830	75,276	208,663	16,891
18 Number of persons engaged, total.....	11,052	5,164	5,581	307
19 Production and development workers.....	7,846	3,472	4,147	227
20 All other employees.....	2,151	821	1,274	56
21 Proprietors and firm members.....	1,055	871	160	24
22 Performing manual labor.....	308	234	61	13
23 Man-hours worked by production and development workers, total.....1,000..	15,425	6,296	8,636	493
24 Operating and maintaining wells.....do....	11,593	4,204	7,226	163
25 Drilling wells and rig building.....do....	2,849	1,627	1,013	209
26 Exploration work (except drilling).....do....	708	336	349	23
27 Other work.....do....	275	129	48	98
28 Principal expenses designated below, total.....\$1,000..	173,594	73,492	93,862	6,240
29 Wages of production and development workers.....do....	30,538	11,173	18,436	929
30 Salaries of all other employees.....do....	11,399	4,141	6,975	283
31 Supplies.....do....	39,577	17,211	20,764	1,602
32 Gas purchased for gas lift and repressuring.....do....	92	49	43	...
33 Fuel purchased.....do....	6,853	2,649	4,108	96
34 Electric energy purchased.....do....	3,547	1,155	2,382	10
35 Contract work.....do....	81,588	37,114	41,154	3,320
36 Purchased machinery installed.....do....	49,127	24,220	24,228	679
37 Capital expenditures, total.....do....	98,906	41,421	54,082	3,403
38 Development and exploration of mineral property.....do....	43,718	14,675	26,946	2,097
39 Other construction.....do....	4,138	838	3,290	10
40 New machinery and equipment.....do....	47,937	24,225	22,514	1,198
41 Used plant and equipment.....do....	3,113	1,683	1,332	98
42 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....1,000..	685	242	433	10
43 Per production worker.....do....	87	70	104	44
44 Prime movers.....do....	602	214	379	9
45 Electric motors driven by purchased energy.....do....	83	28	54	1
46 Horsepower rating of electric motors driven by energy generated at the establishment.....do....	1	...	1	...
47 Energy used.....million kwh equivalent..	9,280	3,352	5,898	30
48 Produced and used for fuel at same establishment:				
49 Crude petroleum.....1,000 barrels..	71	62	9	...
Natural gas.....million cu.ft..	5,555	1,479	4,076	...
Fuels purchased:				
50 Coal.....1,000 short tons..	1	...	1	...
51 Fuel oils.....1,000 barrels..	207	105	98	4
52 Gas (natural and manufactured).....million cu.ft..	20,160	7,169	12,983	8
53 Other fuels.....\$1,000..	2,554	1,352	1,124	78
54 Electric energy purchased.....million kwh..	248	68	179	1
55 Electric energy generated and used.....do....	4	1	3	...
56 Water intake.....million gallons..	7,832	2,120	5,692	20
57 Per production worker.....do....	1.00	0.61	1.37	0.09
Wells drilled and completed except those drilled on contract for others:				
58 Number drilled, total.....	5,473	2,878	2,288	307
59 Drilled on contract for reporting companies.....	3,662	1,898	1,611	153
60 Drilled by reporting companies for own account.....	1,811	980	677	154
61 Footage of wells drilled, total.....1,000 ft..	18,096	9,513	7,517	1,066
62 Drilled on contract for reporting companies.....do....	12,560	6,594	5,548	418
63 Drilled by reporting companies for own account.....do....	5,536	2,919	1,969	648
64 Cost of drilling and equipping wells.....\$1,000..	142,384	71,711	63,605	7,068
Wells drilled and completed on contract for others:				
65 Number drilled.....	284	199	85	...
66 Footage of wells drilled on contract.....1,000 ft..	807	523	284	...
67 Costs borne by drilling contractor in drilling and equipping wells.....\$1,000..	2,546	1,398	1,148	...

See footnotes at end of table.

CRUDE PETROLEUM AND NATURAL GAS

13B-29

BY GEOGRAPHIC DIVISIONS, STATES, AND TYPE OF WELLS OPERATED: 1954—Continued
see INTRODUCTION)

West North Central—Continued							
Nebraska			Kansas				Iowa, Missouri, North Dakota, and South Dakota ⁴
Total	Oil well operations only	Oil and gas well operations and Gas well operations only ³	Total	Oil well operations only	Oil and gas well operations	Gas well operations only	
51	43	8	839	636	162	41	28
546	283	263	37,278	14,509	21,262	1,507	558
501	283	218	33,090	14,509	18,581	...	527
45	...	45	4,188	...	2,681	1,507	31
7,464	4,219	3,245	108,019	33,681	73,265	1,073	5,639
...	...	...	21	21	...	(10)	...
7,008	848	6,160	391,578	3,444	252,764	135,370	2,586
2,718	848	1,870	13,145	3,444	9,701	...	2,396
4,290	...	4,290	378,433	...	243,063	135,370	190
(D)	(D)	5,622	385,222	2,499	247,416	135,307	(D)
21,444	11,563	9,881	348,952	92,390	237,458	19,104	12,312
20,508	11,469	9,039	298,131	90,237	204,909	2,985	12,231
...	...	...	64	63	...	1	...
851	9	842	45,962	136	29,729	16,097	66
...
85	85	...	4,795	1,954	2,820	21	15
18,727	9,145	9,582	285,853	69,168	199,887	16,798	(16)
325	192	133	10,207	4,454	5,450	303	520
240	110	130	7,336	3,094	4,018	224	270
48	45	3	1,857	530	1,272	55	246
37	37	...	1,014	830	160	24	4
14	14	...	291	217	61	13	3
494	215	279	14,352	5,503	8,359	490	579
297	138	159	11,092	3,863	7,069	160	204
152	67	85	2,604	1,467	928	209	93
43	8	35	385	48	314	23	280
2	2	...	271	125	48	98	2
11,617	8,273	3,344	138,420	42,370	90,007	6,043	23,557
1,151	463	688	28,085	9,411	17,751	923	1,302
211	199	12	9,692	2,446	6,967	279	1,496
2,166	1,581	585	32,121	10,605	19,961	1,555	5,290
...	...	...	92	49	43	...	...
277	104	173	5,982	1,951	3,935	96	594
50	42	8	3,471	1,087	2,374	10	26
7,762	5,884	1,878	58,977	16,821	38,976	3,180	14,849
6,209	4,378	1,831	34,481	11,425	22,377	679	8,437
13,747	9,571	4,176	72,025	18,716	50,095	3,214	13,134
6,940	4,841	2,099	32,207	5,263	25,036	1,908	4,571
508	205	303	3,446	449	2,987	10	184
6,280	4,506	1,774	33,795	11,857	20,740	1,198	7,862
19	19	...	2,577	1,147	1,332	98	517
31	11	20	632	209	413	10	22
129	100	154	86	68	103	45	81
29	9	20	551	183	359	9	22
2	2	(10)	81	26	54	1	(10)
(10)	...	(10)	1	...	1	...	(10)
324	74	250	8,470	2,792	5,648	30	486
1	1	...	21	12	9	...	49
433	48	385	4,491	800	3,691	...	631
...	...	...	1	...	1	...	...
22	16	6	176	80	92	4	9
448	59	389	19,529	6,927	12,594	8	183
44	37	7	1,967	772	1,117	78	543
3	3	(10)	244	64	179	1	1
(10)	...	(10)	4	1	3	...	(10)
170	166	4	7,534	1,826	5,688	20	128
0.71	1.51	0.03	1.03	0.59	1.42	0.09	0.47
375	274	101	4,856	2,362	2,195	299	242
295	238	57	3,150	1,443	1,562	145	217
80	36	44	1,706	919	633	154	25
2,031	1,508	523	14,295	6,235	7,025	1,035	1,770
1,598	1,508	523	9,320	3,652	5,281	387	1,642
433	1,508	523	4,975	2,583	1,744	648	128
15,975	11,587	4,388	100,314	34,029	59,409	6,876	26,095
4	4	...	280	195	85	...	...
(D)	(D)	...	(D)	(D)	284	...	...
(D)	(D)	...	(D)	(D)	1,148	...	...

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 4B.—DETAILED STATISTICS FOR PRODUCING ESTABLISHMENTS IN THE CRUDE PETROLEUM AND NATURAL GAS INDUSTRIES IN THE UNITED STATES,
(For explanation of line captions,

Item	South Atlantic			
	Total			
	Total	Oil well operations only	Oil and gas well operations	Gas well operations only
1 Number of establishments.....	733	237	158	338
2 Number of wells producing during December 1954, total.....	23,183	2,321	13,485	7,377
3 Oil wells ¹¹	9,014	2,321	6,693	...
4 Gas wells ¹¹	14,169	...	6,792	7,377
5 Crude petroleum shipped.....1,000 barrels..	3,151	899	2,232	20
6 Field condensate and drips shipped.....do...	9	...	9	...
7 Natural gas produced, total.....million cu.ft..	172,447	1,345	74,606	96,496
8 From oil wells ¹¹.....do...	5,828	1,345	4,483	...
9 From gas wells ¹¹.....do...	166,619	...	70,123	96,496
10 Natural gas shipped.....do...	166,112	1,230	69,024	95,858
11 Value of shipments, total.....\$1,000..	55,202	2,336	24,076	28,790
12 Crude petroleum.....do...	8,753	2,095	6,596	62
13 Field condensate and drips.....do...	27	...	27	...
14 Natural gas.....do...	46,311	232	17,414	28,665
15 Other products.....do...	35	...	...	35
16 Amount received or due for services.....do...	76	9	39	28
17 Value added in mining.....do...	49,505	743	22,577	26,185
18 Number of persons engaged, total.....	5,220	919	2,171	2,130
19 Production and development workers.....	3,407	367	1,758	1,282
20 All other employees.....	568	127	169	272
21 Proprietors and firm members.....	1,245	425	244	576
22 Performing manual labor.....	193	73	51	69
23 Man-hours worked by production and development workers, total.....1,000..	5,672	380	3,263	2,029
24 Operating and maintaining wells.....do...	4,972	322	2,920	1,730
25 Drilling wells and rig building.....do...	552	45	273	234
26 Exploration work (except drilling).....do...	30	13	4	13
27 Other work.....do...	118	...	66	52
28 Principal expenses designated below, total.....\$1,000..	26,674	3,873	11,196	11,605
29 Wages of production and development workers.....	9,534	574	5,501	3,459
30 Salaries of all other employees.....	2,549	590	729	1,230
31 Supplies.....	5,855	830	1,958	3,067
32 Gas purchased for gas lift and repressuring.....	22	5	5	12
33 Fuel purchased.....	251	29	184	38
34 Electric energy purchased.....	79	10	49	20
35 Contract work.....	8,384	1,835	2,770	3,779
36 Purchased machinery installed.....	3,514	232	1,124	2,158
37 Capital expenditures, total.....	12,408	1,348	4,591	6,469
38 Development and exploration of mineral property.....	7,143	953	2,515	3,675
39 Other construction.....	1,178	3	612	563
40 New machinery and equipment.....	3,924	369	1,378	2,177
41 Used plant and equipment.....	163	23	86	54
42 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....1,000..	197	21	156	20
43 Per production worker.....	58	57	89	16
44 Prime movers.....1,000..	190	20	152	18
45 Electric motors driven by purchased energy.....do...	7	1	4	2
46 Horsepower rating of electric motors driven by energy generated at the establishment.....do...	(10)	...	(10)	...
47 Energy used.....million kwh equivalent..	899	42	772	85
Produced and used for fuel at same establishment:				
48 Crude petroleum.....1,000 barrels..	2	...	2	...
49 Natural gas.....million cu.ft..	2,463	75	2,152	236
Fuels purchased:				
50 Coal.....1,000 short tons..	...	...	...	...
51 Fuel oils.....1,000 barrels..	...	...	...	...
52 Gas (natural and manufactured).....million cu.ft..	272	40	225	7
53 Other fuels.....\$1,000..	194	26	136	32
54 Electric energy purchased.....million kwh..	5	(10)	3	2
55 Electric energy generated and used.....do...	(10)	...	(10)	...
56 Water intake.....million gallons..	373	14	349	10
57 Per production worker.....do...	0.11	0.04	0.20	0.01
Wells drilled and completed except those drilled on contract for others:				
58 Number drilled, total.....	547	95	201	251
59 Drilled on contract for reporting companies.....	428	72	143	213
60 Drilled by reporting companies for own account.....	119	23	58	38
61 Footage of wells drilled, total.....1,000 ft..	1,694	271	541	882
62 Drilled on contract for reporting companies.....do...	1,344	230	355	759
63 Drilled by reporting companies for own account.....do...	350	41	186	123
64 Cost of drilling and equipping wells.....\$1,000..	13,642	2,434	4,344	6,864
Wells drilled and completed on contract for others:				
65 Number drilled.....	...	...	...	...
66 Footage of wells drilled on contract.....1,000 ft..	...	...	...	...
67 Costs borne by drilling contractor in drilling and equipping wells.....\$1,000..	...	...	...	...

See footnotes at end of table.

BY GEOGRAPHIC DIVISIONS, STATES, AND TYPE OF WELLS OPERATED: 1954--Continued
see INTRODUCTION)

South Atlantic--Continued						
West Virginia				Maryland, Virginia, Georgia, and Florida		
Total	Oil well operations only	Oil and gas well operations	Gas well operations only	Total	Oil well operations only	Gas well operations only
721	233	158	330	12	4	8
23,103	2,305	13,485	7,313	80	16	64
8,998	2,305	6,693	...	16	16	...
14,105	...	6,792	7,313	64	...	64
(D)	351	2,232	20	(D)	548	...
9	...	9	...	...	...	...
169,617	1,297	74,606	93,714	2,830	48	2,782
5,780	1,297	4,483	...	48	48	...
163,837	...	70,123	93,714	2,782	...	2,782
163,330	1,230	69,024	93,076	2,782	...	2,782
53,340	1,267	24,076	27,997	1,862	1,069	793
137,719	1,033	6,596	13,90	131,069	1,062	137
27	...	27	...	...	...	...
45,518	225	17,414	27,879	793	7	786
(13)	...	...	(13)	(13)	...	(13)
76	9	39	28	...	...	...
48,615	633	22,577	25,405	890	110	780
5,034	809	2,171	2,054	186	110	76
3,347	348	1,758	1,241	60	19	41
461	36	169	256	107	91	16
1,226	425	244	557	19	...	19
192	73	51	68	1	...	1
5,557	345	3,263	1,949	115	35	80
4,898	299	2,920	1,679	74	23	51
517	37	273	207	35	8	27
25	9	4	12	5	4	1
117	...	66	51	1	...	1
24,141	2,128	11,196	10,817	2,533	1,745	788
9,307	482	5,501	3,324	227	92	135
1,947	57	729	1,161	602	533	69
5,377	589	1,958	2,830	478	241	237
22	5	5	12	...	...	...
248	29	184	35	3	...	3
78	9	49	20	1	1	...
7,162	957	2,770	3,435	1,222	878	344
3,295	147	1,124	2,024	219	85	134
11,457	1,102	4,591	5,764	951	246	705
6,420	724	2,515	3,181	723	229	494
1,078	2	612	464	100	1	99
3,796	353	1,378	2,065	128	16	112
163	23	86	54	...	...	...
192	19	156	17	5	2	3
57	55	89	14	83	105	73
185	18	152	15	5	2	3
7	1	4	2	(10)	(10)	...
(10)	...	(10)	...	...	...	...
887	31	772	84	12	11	1
2	...	2	...	...	...	...
2,429	41	2,152	236	34	34	...
...
...
269	40	225	4	3	...	3
193	26	136	31	1	...	1
5	(10)	3	2	(10)	(10)	...
(10)	...	(10)	...	...	...	...
368	11	349	8	5	3	2
0.11	0.03	0.20	0.01	0.08	0.16	0.05
528	89	201	238	19	6	13
412	66	143	203	16	6	10
116	23	58	35	3	...	3
1,581	216	541	824	113	55	58
1,247	175	355	717	97	55	42
334	41	186	107	16	...	16
12,168	1,477	4,344	6,347	1,474	957	517
...
...
...

Table 4B.—DETAILED STATISTICS FOR PRODUCING ESTABLISHMENTS IN THE CRUDE PETROLEUM AND NATURAL GAS INDUSTRIES IN THE UNITED STATES,
(For explanation of line captions,

Item	East South Central			
	Total			
	Total	Oil well operations only	Oil and gas well operations	Gas well operations only
1 Number of establishments.....	435	342	48	45
2 Number of wells producing during December 1954, total.....	18,573	9,398	7,647	1,528
3 Oil wells ¹¹	14,279	9,398	4,881	...
4 Gas wells ¹¹	4,294	...	2,766	1,528
5 Crude petroleum shipped.....1,000 barrels..	45,644	20,462	25,150	32
6 Field condensate and drips shipped.....do....	783	18	718	47
7 Natural gas produced, total.....million cu.ft..	273,871	4,296	239,187	30,388
8 From oil wells ¹¹.....do....	55,941	4,296	51,645	...
9 From gas wells ¹¹.....do....	217,930	...	187,542	30,388
10 Natural gas shipped.....do....	204,533	1,920	172,801	29,812
11 Value of shipments, total.....\$1,000..	151,807	56,284	85,545	9,978
12 Crude petroleum.....do....	117,640	55,673	61,873	94
13 Field condensate and drips.....do....	2,331	52	2,138	141
14 Natural gas.....do....	31,213	215	21,258	9,740
15 Other products.....do....	1	1	...	...
16 Amount received or due for services.....do....	622	343	276	3
17 Value added in mining.....do....	127,728	44,133	73,295	10,300
18 Number of persons engaged, total.....	4,907	2,411	2,212	284
19 Production and development workers.....	3,661	1,740	1,709	212
20 All other employees.....	797	291	480	26
21 Proprietors and firm members.....	449	380	23	46
22 Performing manual labor.....	112	94	9	9
23 Man-hours worked by production and development workers, total.....1,000..	6,865	3,217	3,257	391
24 Operating and maintaining wells.....do....	4,499	2,327	1,898	274
25 Drilling wells and rig building.....do....	1,140	587	469	84
26 Exploration work (except drilling).....do....	525	234	272	19
27 Other work.....do....	701	69	618	14
28 Principal expenses designated below, total.....\$1,000..	61,714	27,531	30,867	3,316
29 Wages of production and development workers.....do....	12,561	5,697	6,118	746
30 Salaries of all other employees.....do....	4,117	1,439	2,596	82
31 Supplies.....do....	16,082	7,345	8,084	653
32 Gas purchased for gas lift and repressuring.....do....	589	4	585	...
33 Fuel purchased.....do....	973	639	330	4
34 Electric energy purchased.....do....	648	433	213	2
35 Contract work.....do....	26,744	11,974	12,941	1,829
36 Purchased machinery installed.....do....	13,763	5,367	7,127	1,269
37 Capital expenditures, total.....do....	34,720	13,611	17,030	4,079
38 Development and exploration of mineral property.....do....	20,275	6,992	10,789	2,494
39 Other construction.....do....	3,494	591	2,019	884
40 New machinery and equipment.....do....	10,517	5,598	4,218	701
41 Used plant and equipment.....do....	434	430	4	...
42 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....1,000..	246	124	118	4
43 Per production worker.....	67	71	69	19
44 Prime movers.....1,000..	212	99	109	4
45 Electric motors driven by purchased energy.....do....	34	25	9	...
46 Horsepower rating of electric motors driven by energy generated at the establishment.....do....	(10)	(10)	...	...
47 Energy used.....million kwh equivalent..	3,229	1,002	2,226	1
Produced and used for fuel at same establishment:				
48 Crude petroleum.....1,000 barrels..	1	1	...	...
49 Natural gas.....million cu.ft..	8,495	2,121	6,374	...
Fuels purchased:				
50 Coal.....1,000 short tons..	...	...	...	...
51 Fuel oils.....1,000 barrels..	21	19	2	...
52 Gas (natural and manufactured).....million cu.ft..	1,248	584	664	...
53 Other fuels.....\$1,000..	612	439	168	5
54 Electric energy purchased.....million kwh..	41	26	15	(10)
55 Electric energy generated and used.....do....	1	1	...	...
56 Water intake.....million gallons..	2,134	1,110	1,024	...
57 Per production worker.....do....	0.58	0.64	0.60	...
Wells drilled and completed except those drilled on contract for others:				
58 Number drilled, total.....	1,937	1,250	601	86
59 Drilled on contract for reporting companies.....	1,414	918	425	71
60 Drilled by reporting companies for own account.....	523	332	176	15
61 Footage of wells drilled, total.....1,000 ft..	5,116	2,777	2,025	314
62 Drilled on contract for reporting companies.....do....	3,860	2,008	1,610	242
63 Drilled by reporting companies for own account.....do....	1,256	769	415	72
64 Cost of drilling and equipping wells.....\$1,000..	42,148	19,104	20,120	2,924
Wells drilled and completed on contract for others:				
65 Number drilled.....	44	28	16	...
66 Footage of wells drilled on contract.....1,000 ft..	139	(D)	(D)	...
67 Costs borne by drilling contractor in drilling and equipping wells.....\$1,000..	448	(D)	(D)	...

See footnotes at end of table.

BY GEOGRAPHIC DIVISIONS, STATES, AND TYPE OF WELLS OPERATED: 1954—Continued
see INTRODUCTION)

East South Central—Continued										
Kentucky				Tennessee			Alabama	Mississippi		
Total	Oil well operations only	Oil and gas well operations	Gas well operations only	Total	Oil well operations only	Oil and gas well opera- tions and Gas well operations ⁵	Oil well operations only	Total	Oil well operations only	Oil and gas well opera- tions and Gas well operations ⁶
315	251	26	38	10	7	3	11	99	73	26
16,610	8,730	6,378	1,502	44	12	32	101	1,818	555	1,263
12,555	8,730	3,825	...	24	12	12	101	1,599	555	1,044
4,055	...	2,553	1,502	20	...	20	...	219	...	219
11,881	10,275	1,587	19	13	9	4	1,584	32,166	8,594	23,572
4	4	(10)	...	...	...	...	...	779	14	765
73,242	1,957	46,285	25,000	94	...	94	96	200,439	2,243	198,196
2,028	1,957	71	...	...	...	...	96	53,817	2,243	51,574
71,214	...	46,214	25,000	94	...	94	...	146,622	...	146,622
68,848	350	43,582	24,916	94	...	94	...	135,591	1,570	134,021
53,956	30,557	14,228	9,171	57	34	23	3,136	94,658	22,557	72,101
34,810	30,165	4,593	52	46	34	12	3,136	79,648	22,338	57,310
14	12	2	...	...	...	...	...	2,317	40	2,277
18,782	43	9,623	9,116	11	...	11	...	12,420	172	12,248
...	...	...	...	...	...	...	...	1	1	...
350	337	10	3	...	...	...	...	272	6	266
46,566	24,720	12,523	9,323	25	16	9	2,250	78,887	17,147	61,740
3,242	1,821	1,196	225	16	8	8	99	1,550	483	1,067
2,574	1,374	1,040	160	9	2	7	68	1,010	296	714
285	126	136	23	...	...	...	19	493	146	347
383	321	20	42	7	6	1	12	47	41	6
99	82	9	8	5	4	1	1	7	7	...
4,594	2,449	1,867	278	17	3	14	127	2,127	638	1,489
3,217	1,919	1,042	256	17	3	14	65	1,200	340	860
669	408	253	8	...	...	...	7	464	172	292
64	61	3	...	...	...	...	55	406	118	288
644	61	569	14	...	...	...	...	57	8	49
25,740	15,722	8,164	1,854	50	22	28	1,550	34,374	10,237	24,137
7,471	4,042	2,969	460	18	4	14	285	4,787	1,366	3,421
1,176	527	579	70	...	...	...	111	2,830	801	2,029
6,601	4,517	1,786	298	5	2	3	323	9,153	2,503	6,650
19	2	17	...	...	...	...	...	570	2	568
398	307	88	3	1	...	1	7	267	325	242
410	340	69	1	6	...	6	32	200	61	139
9,665	5,987	2,656	1,022	20	16	4	792	16,267	5,179	11,088
5,414	3,167	1,680	567	...	...	...	100	8,249	2,100	6,149
15,117	8,483	4,591	2,043	...	...	...	368	19,235	4,760	14,475
8,159	4,342	2,484	1,333	...	...	...	267	11,849	2,383	9,466
1,254	468	629	157	...	...	...	33	2,207	90	2,117
5,302	3,275	1,474	553	...	...	...	68	5,147	2,255	2,892
402	398	4	...	...	...	...	...	32	32	...
120	85	33	2	(10)	...	(10)	5	121	34	87
47	62	32	13	xxx	...	xxx	74	120	115	122
95	64	29	2	...	...	...	4	113	31	82
25	21	4	...	(10)	...	(10)	1	8	3	5
(10)	(10)	...	...	...	...	...	...	...	...	...
828	597	230	1	1	...	1	22	2,378	383	1,995
1	1	...	...	...	...	...	...	...	...	...
2,128	1,498	630	...	...	...	...	53	6,314	570	5,744
...
3	3	...	...	...	...	...	1	17	15	2
175	137	38	...	...	...	...	...	1,073	447	626
357	273	81	3	1	...	1	6	248	160	88
23	19	4	(10)	1	...	1	3	14	4	10
1	1	...	...	...	...	...	...	...	...	...
1,796	978	818	...	...	...	...	2	336	130	206
0.70	0.71	0.79	...	...	...	...	0.03	0.33	0.44	0.29
1,580	1,069	435	76	4	3	1	5	348	173	175
1,156	796	292	68	4	3	1	5	249	114	135
424	273	143	8	...	...	...	...	99	59	40
192,514	1,555	722	19237	(19)	(19)	(19)	1930	2,572	1,192	1,380
191,935	1,186	524	19225	(19)	(19)	(19)	1930	1,895	792	1,103
579	369	198	12	...	...	...	...	677	400	277
1917,869	10,795	5,283	191,791	(19)	(19)	(19)	19241	24,038	8,068	15,970
28	28	...	...	...	...	...	...	16	...	16
(D)	(D)	...	...	...	...	...	...	(D)	(D)	(D)
(D)	(D)	...	...	...	...	...	...	(D)	...	(D)

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 4B.—DETAILED STATISTICS FOR PRODUCING ESTABLISHMENTS IN THE CRUDE PETROLEUM AND NATURAL GAS INDUSTRIES IN THE UNITED STATES,
(For explanation of line captions,

Item	West South Central					
	Total				Arkansas	
	Total	Oil well operations only	Oil and gas well operations	Gas well operations only	Total	Oil well operations only
1 Number of establishments.....	4,830	3,605	1,035	190	188	165
2 Number of wells producing during December 1954, total.....	223,618	60,226	159,574	3,818	3,629	2,670
3 Oil wells ¹¹	206,231	60,226	146,005	...	3,405	2,670
4 Gas wells ¹¹	17,387	...	13,569	3,818	224	...
5 Crude petroleum shipped.....1,000 barrels..	1,329,842	194,651	1,133,114	2,077	26,701	16,192
6 Field condensate and drips shipped.....do...	23,906	370	22,301	1,235	26	26
7 Natural gas produced, total.....million cu.ft..	7,613,124	204,589	6,639,591	768,944	49,365	20,830
8 From oil wells ¹¹.....do...	2,434,134	204,589	2,229,545	...	35,895	20,830
9 From gas wells ¹¹.....do...	5,178,990	...	4,410,046	768,944	13,470	...
10 Natural gas shipped.....do...	6,035,104	172,831	5,219,343	642,930	28,038	9,136
11 Value of shipments, total.....\$1,000..	4,435,482	566,803	3,799,173	69,506	73,741	43,629
12 Crude petroleum.....do...	3,778,931	547,796	3,225,364	5,771	71,281	42,684
13 Field condensate and drips.....do...	72,149	1,105	67,362	3,682	59	59
14 Natural gas.....do...	565,120	12,378	493,589	59,153	2,199	732
15 Other products.....do...	111	1	110	...	...	...
16 Amount received or due for services.....do...	19,171	5,523	12,748	900	202	154
17 Value added in mining.....do...	3,866,015	427,120	3,377,772	61,123	61,808	36,747
18 Number of persons engaged, total.....	108,884	22,173	85,386	1,325	1,884	1,213
19 Production and development workers.....	61,734	14,377	46,539	818	1,214	883
20 All other employees.....do...	41,775	3,440	37,988	347	467	148
21 Proprietors and firm members.....	5,375	4,356	859	160	203	182
22 Performing manual labor.....do...	1,761	1,360	344	57	60	54
23 Man-hours worked by production and development workers, total.....1,000..	124,659	26,207	96,418	2,034	2,424	1,630
24 Operating and maintaining wells.....do...	89,736	19,893	68,752	1,091	2,089	1,418
25 Drilling wells and rig building.....do...	21,688	5,095	15,906	687	199	134
26 Exploration work (except drilling).....do...	9,444	433	8,915	96	109	59
27 Other work.....do...	3,791	786	2,845	160	27	19
28 Principal expenses designated below, total.....\$1,000..	1,939,010	308,605	1,606,839	23,566	25,762	14,672
29 Wages of production and development workers.....	269,390	46,032	219,559	3,799	4,655	3,227
30 Salaries of all other employees.....do...	253,437	16,983	234,090	2,364	2,632	815
31 Supplies.....do...	432,145	80,758	345,210	6,177	6,878	4,005
32 Gas purchased for gas lift and repressuring.....do...	9,110	1,801	7,300	9	1,010	992
33 Fuel purchased.....do...	17,728	4,547	12,927	254	397	324
34 Electric energy purchased.....do...	14,386	4,041	10,307	38	493	389
35 Contract work.....do...	942,814	154,443	777,446	10,925	9,697	4,920
36 Purchased machinery installed.....do...	414,623	63,269	348,630	2,724	3,473	1,840
37 Capital expenditures, total.....do...	1,261,339	169,176	1,080,419	11,744	10,015	5,588
38 Development and exploration of mineral property.....do...	814,732	91,555	715,149	8,028	5,175	2,744
39 Other construction.....do...	60,761	2,100	58,242	419	367	223
40 New machinery and equipment.....do...	366,709	69,650	294,565	2,494	3,493	1,650
41 Used plant and equipment.....do...	19,137	5,871	12,463	803	980	971
42 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....1,000..	4,904	967	3,883	54	113	74
43 Per production worker.....do...	79	67	83	66	93	84
44 Prime movers.....do...	4,336	815	3,468	53	97	60
45 Electric motors driven by purchased energy.....do...	568	152	415	1	16	14
46 Horsepower rating of electric motors driven by energy generated at the establishment.....do...	48	4	44	(10)	...	...
47 Energy used.....million kwh equivalent..	90,427	10,018	80,264	145	1,429	1,222
48 Produced and used for fuel at same establishment:						
49 Crude petroleum.....1,000 barrels..	234	30	204	...	10	10
50 Natural gas.....million cu.ft..	229,691	17,882	211,706	103	1,282	800
51 Fuels purchased:						
52 Coal.....1,000 short tons..	(10)	...	(10)	...	...	...
53 Fuel oils.....1,000 barrels..	944	276	658	10	5	3
54 Gas (natural and manufactured).....million cu.ft..	45,297	9,501	35,622	174	2,993	2,882
55 Other fuels.....\$1,000..	10,905	3,078	7,669	158	162	106
56 Electric energy purchased.....million kwh..	1,076	300	774	2	47	40
57 Electric energy generated and used.....do...	131	3	126	2	...	...
58 Water intake.....million gallons..	45,516	7,546	37,900	70	734	110
59 Per production worker.....do...	0.74	0.52	0.82	0.09	0.60	0.12
60 Wells drilled and completed except those drilled on contract for others:						
61 Number drilled, total.....	27,705	10,713	16,630	362	477	279
62 Drilled on contract for reporting companies.....	21,856	8,101	13,483	272	365	187
63 Drilled by reporting companies for own account.....	5,849	2,612	3,147	90	112	92
64 Footage of wells drilled, total.....1,000 ft..	124,525	33,997	88,766	1,762	1,974	1,122
65 Drilled on contract for reporting companies.....do...	98,840	27,061	70,568	1,211	1,669	880
66 Drilled by reporting companies for own account.....do...	25,685	6,936	18,198	551	305	242
67 Cost of drilling and equipping wells.....\$1,000..	1,418,060	263,875	1,136,974	17,211	13,902	7,031
68 Wells drilled and completed on contract for others:						
69 Number drilled.....	988	551	394	43	14	12
70 Footage of wells drilled on contract.....1,000 ft..	3,394	1,432	1,774	188	45	(D)
71 Costs borne by drilling contractor in drilling and equipping wells.....\$1,000..	10,404	3,975	5,944	485	120	(D)

See footnotes at end of table.

BY GEOGRAPHIC DIVISIONS, STATES, AND TYPE OF WELLS OPERATED: 1954—Continued

see INTRODUCTION)

West South Central—Continued													
Arkansas—Continued		Louisiana				Oklahoma				Texas			
Oil and gas well operations	Gas well operations only	Total	Oil well operations only	Oil and gas well operations	Gas well operations only	Total	Oil well operations only	Oil and gas well operations	Gas well operations only	Total	Oil well operations only	Oil and gas well operations	Gas well operations only
19	4	433	249	133	51	1,472	1,094	339	39	2,737	2,097	544	96
827	132	17,331	3,125	12,980	1,226	58,000	19,460	37,696	844	144,658	34,971	108,071	1,616
735	...	13,561	3,125	10,436	...	54,630	19,460	35,170	...	134,635	34,971	99,664	...
92	132	3,770	...	2,544	1,226	3,370	...	2,526	844	10,023	...	8,407	1,616
10,507	2	230,467	12,562	217,722	183	169,032	38,839	129,524	669	903,642	127,058	775,361	1,223
...	...	10,732	135	10,337	260	208	2	190	16	12,940	207	11,774	959
23,590	4,945	1,658,951	19,019	1,492,556	147,376	782,388	38,153	635,615	108,620	5,122,420	126,587	4,487,830	508,003
15,065	...	385,090	19,019	366,071	...	420,417	38,153	382,264	...	1,592,732	126,587	1,466,145	...
8,525	4,945	1,273,861	...	1,126,485	147,376	361,971	...	253,351	108,620	3,529,688	...	3,021,685	508,003
14,032	4,870	1,310,010	11,064	1,206,174	92,772	578,523	30,565	452,196	95,762	4,118,533	122,066	3,546,941	449,526
29,601	511	847,595	36,811	799,552	11,232	523,338	109,754	399,620	13,964	2,990,808	376,609	2,570,400	43,799
28,592	5	674,654	35,082	639,121	451	465,973	105,728	358,317	1,928	2,567,023	364,302	2,199,334	3,387
...	...	32,521	403	31,329	789	599	6	549	44	38,970	637	35,484	2,849
994	473	138,136	1,153	127,229	9,754	52,215	1,567	38,919	11,729	372,570	8,926	326,447	37,197
...	...	...	...	...	...	64	...	64	...	47	1	46	...
15	33	2,284	173	1,873	238	4,487	2,453	1,771	263	12,198	2,743	9,089	366
24,577	484	741,164	27,348	704,191	9,625	434,906	80,130	341,713	13,063	2,628,137	282,895	2,307,291	37,951
624	47	17,273	1,405	15,510	358	23,507	6,712	16,647	148	66,220	12,843	52,605	772
295	36	11,594	927	10,440	227	13,397	4,580	8,802	15	35,529	7,987	27,002	540
313	6	5,299	217	4,991	91	8,592	914	7,568	110	27,417	2,161	25,116	140
16	5	380	261	79	40	1,518	1,218	277	23	3,274	2,695	487	92
5	1	108	70	29	9	528	376	142	10	1,065	860	168	37
707	87	24,046	1,767	21,855	424	25,811	8,167	17,428	216	72,378	14,643	56,428	1,307
613	58	14,423	1,532	12,539	352	20,419	6,146	14,141	132	52,805	10,797	41,459	549
48	17	6,041	202	5,826	13	3,524	1,658	1,797	69	11,924	3,101	8,235	588
46	4	2,476	19	2,457	...	1,254	111	1,128	15	5,605	244	5,284	77
...	8	1,106	14	1,033	59	614	252	362	...	2,044	501	1,450	93
10,680	410	461,232	19,765	435,028	6,439	310,202	66,323	239,253	4,626	1,141,814	207,845	921,878	12,091
1,271	157	56,785	3,194	52,798	793	51,630	13,803	37,364	463	156,320	25,808	128,126	2,386
1,793	24	32,387	1,214	30,661	512	50,087	4,659	44,607	821	168,331	10,295	157,029	1,007
2,751	122	124,129	4,735	118,034	1,360	58,739	15,963	41,360	1,416	242,399	56,055	183,065	3,279
18	...	656	312	344	...	431	63	364	4	7,013	434	6,574	5
69	4	3,755	265	3,429	61	3,334	942	2,332	60	10,242	3,016	7,097	129
104	...	1,009	219	772	18	3,365	1,243	2,121	1	9,519	2,190	7,310	19
4,674	103	242,511	9,826	228,990	3,695	142,616	29,650	111,105	1,861	547,990	110,047	432,677	5,266
1,611	22	106,019	3,082	101,721	1,216	69,145	17,702	51,217	226	235,986	40,645	194,081	1,260
4,203	224	371,648	8,976	357,929	4,743	189,198	35,939	150,592	2,667	690,478	118,673	567,695	4,110
2,236	195	263,455	5,477	254,600	3,378	112,029	15,517	94,278	2,234	434,073	67,817	364,035	2,221
144	...	19,212	136	18,932	144	8,398	771	7,609	18	32,784	970	31,557	257
1,823	20	87,271	3,091	83,366	814	65,899	18,310	47,186	403	210,046	46,599	162,190	1,257
...	9	1,710	272	1,031	407	2,872	1,341	1,519	12	13,575	3,287	9,913	375
38	1	924	57	850	17	888	251	631	6	2,979	585	2,364	30
129	28	80	61	81	75	66	55	72	400	84	73	88	56
36	1	879	48	814	17	790	209	575	6	2,570	498	2,043	29
2	...	45	9	36	...	98	42	56	...	409	87	321	1
...	...	12	...	12	(10)	7	...	7	...	29	4	25	...
203	4	24,017	2,470	21,525	22	15,907	2,894	12,983	30	49,074	3,432	45,553	89
...	...	17	7	10	...	153	7	146	...	54	6	48	...
482	...	68,500	6,942	61,558	...	36,881	6,580	30,261	40	123,028	3,560	119,405	63
...	...	...	...	...	...	(10)	...	(10)	...	...	...	...	...
2	...	499	54	445	...	57	23	29	5	383	196	182	5
101	10	4,920	558	4,347	15	11,000	1,858	9,142	...	26,384	4,203	22,032	149
53	3	1,936	173	1,703	60	2,162	652	1,474	36	6,645	2,147	4,439	59
7	...	61	15	44	2	275	83	192	(10)	693	162	531	(10)
...	...	71	1	68	2	16	...	16	...	44	2	42	...
624	...	5,916	258	5,610	48	11,866	3,915	7,951	...	27,000	3,263	23,715	22
2,12	...	0.51	0.28	0.54	0.21	0.89	0.85	0.90	...	0.76	0.41	0.88	0.04
194	4	3,048	512	2,474	62	7,843	3,388	4,388	67	16,337	6,534	9,574	229
174	4	2,487	431	1,998	58	6,091	2,293	3,739	59	12,913	5,190	7,572	151
20	...	561	81	476	4	1,752	1,095	649	8	3,424	1,344	2,002	78
834	18	22,269	1,533	20,391	345	23,962	7,882	15,831	249	76,320	23,460	51,710	1,150
771	18	17,103	1,301	15,482	320	19,456	5,616	13,619	221	60,612	19,264	40,696	652
63	...	5,166	232	4,909	25	4,506	2,266	2,212	28	15,708	4,196	11,014	498
6,626	245	378,151	14,089	359,138	4,924	231,804	56,909	171,834	3,061	794,203	185,846	599,376	8,981
1	1	3	1	2	...	331	203	108	20	640	335	283	22
(D)	(D)	14	(D)	(D)	...	994	494	(D)	(D)	2,341	892	(D)	(D)
(D)	(D)	51	(D)	(D)	...	2,612	1,240	(D)	(D)	7,621	2,604	(D)	(D)

Table 4B.—DETAILED STATISTICS FOR PRODUCING ESTABLISHMENTS IN THE CRUDE PETROLEUM AND NATURAL GAS INDUSTRIES IN THE UNITED STATES,

(For explanation of line captions,

Item	Mountain, total			
	Total	Oil well operations only	Oil and gas well operations	Gas well operations only
1 Number of establishments.....	743	517	170	56
2 Number of wells producing during December 1954, total.....	21,099	5,830	13,406	1,863
3 Oil wells ¹¹	17,893	5,830	12,063	...
4 Gas wells ¹¹	3,206	...	1,343	1,863
5 Crude petroleum shipped.....1,000 barrels..	223,608	51,035	172,511	62
6 Field condensate and drips shipped.....do...	721	3	345	373
7 Natural gas produced, total.....million cu.ft..	676,406	48,682	467,091	160,633
8 From oil wells ¹¹.....do...	302,784	48,682	254,102	...
9 From gas wells ¹¹.....do...	373,622	...	212,989	160,633
10 Natural gas shipped.....do...	579,428	14,791	408,171	156,466
11 Value of shipments, total.....\$1,000..	626,908	136,617	473,634	16,657
12 Crude petroleum.....do...	573,728	133,827	439,746	155
13 Field condensate and drips.....do...	2,050	7	960	1,083
14 Natural gas.....do...	48,725	1,121	32,212	15,392
15 Other products.....do...	33	13	20	...
16 Amount received or due for services.....do...	2,372	1,649	696	27
17 Value added in mining.....do...	562,655	98,414	447,171	17,070
18 Number of persons engaged, total.....	11,648	3,991	6,980	677
19 Production and development workers.....	6,616	2,242	3,939	435
20 All other employees.....	4,543	1,365	2,974	204
21 Proprietors and firm members.....	489	384	67	38
22 Performing manual labor.....	162	127	24	11
23 Man-hours worked by production and development workers, total.....1,000..	13,191	4,237	8,101	853
24 Operating and maintaining wells.....do...	7,649	2,213	5,244	192
25 Drilling wells and rig building.....do...	2,641	1,081	977	583
26 Exploration work (except drilling).....do...	2,785	884	1,827	74
27 Other work.....do...	116	59	53	4
28 Principal expenses designated below, total.....\$1,000..	290,593	94,593	181,595	14,405
29 Wages of production and development workers.....do...	30,314	9,195	19,141	1,978
30 Salaries of all other employees.....do...	26,558	7,946	17,419	1,193
31 Supplies.....do...	67,767	20,506	41,351	5,910
32 Gas purchased for gas lift and repressuring.....do...	106	62	44	...
33 Fuel purchased.....do...	2,751	1,041	1,513	197
34 Electric energy purchased.....do...	1,666	470	1,189	7
35 Contract work.....do...	161,431	55,373	100,938	5,120
36 Purchased machinery installed.....do...	39,943	17,968	19,788	2,187
37 Capital expenditures, total.....do...	209,411	57,217	138,360	13,834
38 Development and exploration of mineral property.....do...	136,431	35,803	92,835	7,793
39 Other construction.....do...	11,714	2,871	6,734	2,109
40 New machinery and equipment.....do...	53,769	16,231	35,160	2,378
41 Used plant and equipment.....do...	7,497	2,312	3,631	1,554
42 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....1,000..	645	202	404	39
43 Per production worker.....	97	90	103	90
44 Prime movers.....1,000..	581	184	358	39
45 Electric motors driven by purchased energy.....do...	64	18	46	...
46 Horsepower rating of electric motors driven by energy generated at the establishment.....do...	16	2	14	...
47 Energy used.....million kwh equivalent..	11,456	3,164	8,172	120
48 Produced and used for fuel at same establishment:				
49 Crude petroleum.....1,000 barrels..	50	15	35	...
Natural gas.....million cu.ft..	30,163	8,759	21,384	20
Fuels purchased:				
50 Coal.....1,000 short tons..	...	...	...	...
51 Fuel oils.....1,000 barrels..	94	41	43	10
52 Gas (natural and manufactured).....million cu.ft..	4,414	507	3,684	223
53 Other fuels.....\$1,000..	1,825	768	942	115
54 Electric energy purchased.....million kwh..	115	25	90	(¹⁰)
55 Electric energy generated and used.....do...	49	2	47	...
56 Water intake.....million gallons..	2,969	781	2,136	52
57 Per production worker.....do...	0.45	0.35	0.54	0.12
Wells drilled and completed except those drilled on contract for others:				
58 Number drilled, total.....	3,658	1,372	2,092	194
59 Drilled on contract for reporting companies.....	3,042	1,080	1,890	72
60 Drilled by reporting companies for own account.....	616	292	202	122
61 Footage of wells drilled, total.....1,000 ft..	19,328	7,332	11,192	804
62 Drilled on contract for reporting companies.....do...	16,209	5,853	10,118	238
63 Drilled by reporting companies for own account.....do...	3,119	1,479	1,074	566
64 Cost of drilling and equipping wells.....\$1,000..	240,363	81,648	145,527	13,188
Wells drilled and completed on contract for others:				
65 Number drilled.....	61	56	5	...
66 Footage of wells drilled on contract.....1,000 ft..	283	(D)	(D)	...
67 Costs borne by drilling contractor in drilling and equipping wells.....\$1,000..	1,568	(D)	(D)	...

See footnotes at end of table.

BY GEOGRAPHIC DIVISIONS, STATES, AND TYPE OF WELLS OPERATED: 1954--Continued
see INTRODUCTION)

Mountain--Continued							
Montana				Wyoming			Colorado, total
Total	Oil well operations only	Oil and gas well operations	Gas well operations only	Total	Oil well operations only	Oil and gas well operations and Gas well opera- tions only ⁷	
182	147	25	10	178	151	27	112
4,397	1,701	1,738	958	5,789	1,678	4,111	1,718
3,301	1,701	1,600	...	5,627	1,678	3,949	1,593
1,096	...	138	958	162	...	162	125
13,745	6,098	7,647	...	90,082	17,459	72,623	44,453
(D)	...	(D)	...	103	1	102	(D)
¹² 30,261	1,628	¹² 9,482	19,151	¹² 110,290	18,170	¹² 92,120	66,280
¹² 2,549	1,628	¹² 921	...	¹² 62,655	18,170	¹² 44,485	37,392
27,712	...	8,561	19,151	47,635	...	47,635	28,888
26,561	1,153	8,239	17,169	68,647	1,452	67,195	40,391
32,323	14,651	16,398	1,274	223,629	45,675	177,954	127,536
30,382	14,490	15,892	...	214,314	44,135	170,179	123,260
(D)	...	...	...	313	1	312	(D)
1,894	¹⁴ 161	506	¹⁴ 1,274	7,546	133	7,413	4,130
...	...	...	...	13	13	...	...
(D)	(¹⁴)	...	(¹⁴)	1,443	1,393	50	(D)
25,671	8,993	15,452	1,226	197,054	26,666	170,388	108,724
1,482	1,012	354	116	4,128	1,356	2,772	2,150
796	470	225	101	2,487	892	1,595	837
503	371	123	9	1,562	395	1,167	1,264
183	171	6	6	79	69	10	49
51	46	2	3	33	31	2	21
1,635	947	552	136	4,807	1,611	3,196	1,739
931	355	461	115	3,155	903	2,252	884
230	173	37	20	621	429	192	508
468	413	54	1	1,000	248	752	328
6	6	...	...	31	31	...	19
29,332	20,386	8,262	684	87,835	41,361	46,474	55,463
3,426	2,011	1,082	333	11,427	3,562	7,865	4,007
2,734	1,982	701	51	9,341	2,457	6,884	7,780
5,375	4,240	994	141	18,389	8,986	9,403	11,392
3	...	3	...	4	2	2	15
357	261	86	10	1,115	476	639	394
174	105	63	6	865	212	653	172
17,263	11,787	5,333	143	46,694	25,666	21,028	31,703
4,972	2,337	2,590	45	18,284	10,070	8,214	12,614
21,492	13,072	8,123	297	58,776	26,403	32,373	37,478
12,425	8,509	3,739	177	37,153	16,262	20,891	23,389
877	696	138	43	3,520	655	2,865	2,736
2,894	1,858	990	46	17,848	9,232	8,616	11,006
5,296	2,009	3,256	31	255	254	1	347
98	46	35	17	224	77	147	114
123	98	156	168	90	86	92	136
92	43	32	17	189	68	121	107
6	3	3	...	35	9	26	7
(¹⁰)	...	(¹⁰)	...	11	1	10	3
569	255	311	3	6,211	1,899	4,312	1,848
...	...	...	...	25	7	18	10
1,204	425	779	...	16,249	5,403	10,846	5,359
...
13	13	...	...	41	23	18	19
346	175	171	...	2,846	298	2,548	229
239	173	56	10	603	324	279	278
10	5	5	(¹⁰)	72	13	59	9
2	...	2	...	34	1	33	7
94	67	27	...	2,156	604	1,552	353
0.12	0.14	0.12	...	0.87	0.68	0.97	0.42
314	197	105	12	1,027	671	356	1,187
240	145	90	5	863	545	318	1,001
74	52	15	7	164	126	38	186
1,302	857	419	26	5,598	3,877	1,721	6,310
1,085	696	377	12	4,657	3,114	1,543	5,335
217	161	42	14	941	763	178	975
19,923	14,403	5,277	243	73,722	41,872	31,850	45,229
...	...	...	...	38	38	...	...
...	...	...	...	221	221	...	...
...	...	...	...	845	845	...	...

Table 4B.—DETAILED STATISTICS FOR PRODUCING ESTABLISHMENTS IN THE CRUDE PETROLEUM AND NATURAL GAS INDUSTRIES IN THE UNITED STATES,
(For explanation of line captions,

Item	Mountain—Continued			
	Colorado—Continued		New Mexico	
	Oil well operations only	Oil and gas well operations and Gas well operations only ²	Total	Oil well operations only
1 Number of establishments.....	59	53	249	146
2 Number of wells producing during December 1954, total.....	599	1,119	9,098	1,821
3 Oil wells ¹¹	599	994	7,300	1,821
4 Gas wells ¹¹.....	...	125	1,798	...
5 Crude petroleum shipped.....1,000 barrels..	18,032	26,421	73,448	8,614
6 Field condensate and drips shipped.....do...	2	(D)	572	...
7 Natural gas produced, total.....million cu.ft..	15,594	50,686	453,099	13,273
8 From oil wells ¹¹.....do...	15,594	21,798	200,000	13,273
9 From gas wells ¹¹.....do...	...	28,888	253,099	...
10 Natural gas shipped.....do...	1,952	38,439	427,991	10,234
11 Value of shipments, total.....\$1,000..	50,146	77,390	236,731	24,132
12 Crude petroleum.....do...	49,870	73,390	201,351	23,319
13 Field condensate and drips.....do...	6	154,000	1,602	...
14 Natural gas.....do...	14,270	...	32,902	591
15 Other products.....do...	...	...	20	...
16 Amount received or due for services.....do...	(14)	(15)	856	222
17 Value added in mining.....do...	43,482	65,242	230,399	20,664
18 Number of persons engaged, total.....	683	1,467	3,405	683
19 Production and development workers.....	360	477	2,253	444
20 All other employees.....	298	966	986	132
21 Proprietors and firm members.....	25	24	166	107
22 Performing manual labor.....	11	10	55	37
23 Man-hours worked by production and development workers, total.....1,000..	733	1,006	4,533	805
24 Operating and maintaining wells.....do...	368	516	2,598	567
25 Drilling wells and rig building.....do...	217	291	1,051	223
26 Exploration work (except drilling).....do...	144	184	831	...
27 Other work.....do...	4	15	53	15
28 Principal expenses designated below, total.....\$1,000..	16,377	39,086	106,723	10,412
29 Wages of production and development workers.....do...	1,663	2,344	10,229	1,608
30 Salaries of all other employees.....do...	1,987	5,793	5,479	614
31 Supplies.....do...	3,438	7,954	30,128	2,929
32 Gas purchased for gas lift and repressuring.....do...	...	15	84	60
33 Fuel purchased.....do...	129	265	656	102
34 Electric energy purchased.....do...	76	96	452	75
35 Contract work.....do...	9,084	22,619	59,695	5,024
36 Purchased machinery installed.....do...	3,446	9,168	3,137	1,569
37 Capital expenditures, total.....do...	9,509	27,969	87,820	6,291
38 Development and exploration of mineral property.....do...	4,861	18,528	60,232	4,445
39 Other construction.....do...	1,347	1,389	4,384	124
40 New machinery and equipment.....do...	3,285	7,721	21,605	1,689
41 Used plant and equipment.....do...	16	331	1,599	33
42 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....1,000..	36	78	187	31
43 Per production worker.....	100	164	83	70
44 Prime movers.....1,000..	33	74	171	28
45 Electric motors driven by purchased energy.....do...	3	4	16	3
46 Horsepower rating of electric motors driven by energy generated at the establishment.....do...	1	2	1	...
47 Energy used.....million kwh equivalent..	678	1,170	2,623	311
48 Produced and used for fuel at same establishment:				
49 Crude petroleum.....1,000 barrels..	7	3	15	1
Natural gas.....million cu.ft..	2,011	3,348	6,899	910
Fuels purchased:				
50 Coal.....1,000 short tons..	...	...	...	...
51 Fuel oils.....1,000 barrels..	3	16	14	2
52 Gas (natural and manufactured).....million cu.ft..	34	195	993	...
53 Other fuels.....\$1,000..	109	169	487	89
54 Electric energy purchased.....million kwh..	4	5	24	3
55 Electric energy generated and used.....do...	1	6	1	...
56 Water intake.....million gallons..	49	304	322	32
57 Per production worker.....do...	0.14	0.64	0.14	0.07
Wells drilled and completed except those drilled on contract for others:				
58 Number drilled, total.....	348	839	1,067	115
59 Drilled on contract for reporting companies.....	271	730	890	81
60 Drilled by reporting companies for own account.....	77	109	177	34
61 Footage of wells drilled, total.....1,000 ft..	1,867	4,443	5,837	576
62 Drilled on contract for reporting companies.....do...	1,457	3,878	4,907	432
63 Drilled by reporting companies for own account.....do...	410	565	930	144
64 Cost of drilling and equipping wells.....\$1,000..	12,039	33,190	93,971	9,609
Wells drilled and completed on contract for others:				
65 Number drilled.....	...	...	23	18
66 Footage of wells drilled on contract.....1,000 ft..	...	...	62	(D)
67 Costs borne by drilling contractor in drilling and equipping wells.....\$1,000..	...	...	723	(D)

See footnotes at end of table.

BY GEOGRAPHIC DIVISIONS, STATES, AND TYPE OF WELLS OPERATED: 1954--Continued
see INTRODUCTION)

Mountain--Continued					Pacific (California)				
New Mexico--Continued		Idaho, Arizona, Utah, and Nevada							
Oil and gas well operations	Gas well operations only	Total	Oil well operations only	Oil and gas well operations and Gas well operations only ⁹	Total	Oil well operations only	Oil and gas well operations	Gas well operations only	
76	27	22	14	8	616	564	44	8	1
6,472	805	97	31	66	32,395	12,750	19,600	45	2
5,479	...	72	31	41	31,819	12,750	19,069	...	3
993	805	25	...	25	576	...	531	45	4
64,782	52	1,880	832	1,048	355,354	143,408	211,946	...	5
300	272	5	...	5	145	12	133	...	6
344,546	95,280	16,696	17	16,679	761,597	159,772	593,957	7,868	7
186,727	...	408	17	391	574,396	159,772	414,624	...	8
157,819	95,280	16,288	...	16,288	187,201	...	179,333	7,868	9
323,291	94,466	15,838	...	15,838	436,242	107,126	321,324	7,792	10
203,290	9,309	6,689	2,013	4,676	1,081,525	407,202	672,284	2,039	11
177,905	127	4,421	2,013	2,408	925,139	370,826	554,313	...	12
831	771	15	...	15	480	52	428	...	13
23,903	8,408	2,253	...	2,253	152,264	34,834	115,432	1,998	14
20	...	...	...	...	9	9	...	...	15
631	3	...	...	...	3,633	1,481	2,111	41	16
198,455	11,280	807	(16)	2,198	1,013,852	368,653	643,393	1,806	17
2,405	317	483	257	226	17,730	6,172	11,466	92	18
1,607	202	243	76	167	11,081	3,718	7,338	25	19
769	85	228	169	59	6,001	1,832	4,107	62	20
29	30	12	12	...	648	622	21	5	21
11	7	2	2	...	197	190	6	1	22
3,282	446	477	141	336	21,963	7,481	14,435	47	23
1,970	61	81	20	61	16,259	6,105	10,111	43	24
443	385	231	39	192	3,121	721	2,398	2	25
831	...	158	79	79	812	117	693	2	26
38	...	7	3	4	1,771	538	1,233	...	27
87,528	8,783	11,240	6,057	5,183	303,578	120,481	182,187	910	28
7,634	987	1,225	351	874	53,700	17,175	36,420	105	29
4,427	438	1,224	906	318	40,391	11,767	28,237	387	30
22,423	4,776	2,483	913	1,570	74,214	32,833	41,206	175	31
24	...	...	...	...	152	36	116	...	32
465	89	229	73	156	3,094	1,233	1,860	1	33
377	...	3	2	1	5,887	1,922	3,952	13	34
52,178	2,493	6,076	3,812	2,264	126,140	55,515	70,396	229	35
172	1,396	936	546	390	43,656	19,008	24,635	13	36
70,804	10,725	3,845	1,942	1,903	185,470	71,998	113,274	198	37
50,183	5,604	3,232	1,726	1,506	132,989	49,433	83,432	124	38
2,246	2,014	197	49	148	8,904	2,755	6,147	2	39
18,030	1,886	416	167	249	42,125	19,120	22,934	71	40
345	1,221	...	...	...	1,452	690	761	1	41
144	12	22	12	10	1,417	650	766	1	42
90	59	91	158	60	128	175	104	40	43
131	12	22	12	10	1,179	561	617	1	44
13	...	(10)	(10)	...	238	89	149	(10)	45
1	...	1	...	1	19	16	3	...	46
2,218	94	205	21	184	20,749	7,927	12,821	1	47
14	...	...	...	...	269	169	100	...	48
5,969	20	452	10	44.2	58,571	20,201	38,370	...	49
...	...	...	...	...	1	...	1	...	50
2	10	7	...	7	111	49	62	...	51
770	223	...	...	...	3,276	2,916	360	...	52
389	9	218	73	145	1,981	766	1,214	1	53
21	...	(10)	(10)	(10)	568	250	317	1	54
1	...	5	...	5	46	41	5	...	55
248	42	44	29	15	5,250	1,627	3,623	...	56
0.15	0.21	0.18	0.38	0.09	0.47	0.44	0.49	...	57
801	151	63	41	22	2,304	1,125	1,173	6	58
761	48	48	38	10	1,797	1,005	786	6	59
40	103	15	3	12	507	120	387	...	60
4,640	621	281	155	126	11,094	4,894	6,175	25	61
4,349	126	225	154	71	8,571	4,389	4,157	25	62
291	495	56	1	55	2,523	505	2,018	...	63
75,547	8,815	7,518	3,725	3,793	203,076	88,177	114,652	247	64
5	...	...	...	...	76	76	...	...	65
(D)	...	...	...	...	166	166	...	...	66
(D)	...	...	...	...	890	890	...	...	67

Footnotes--Table 4B

xxx Not applicable.

NA Not available.

D Withheld to avoid approximately disclosing figures for individual companies.

¹Represents 25 oil and gas well operations and 8 gas well operations only.

²Represents 13 oil and gas well operations and 1 gas well operation only.

³Represents 5 oil and gas well operations and 3 gas well operations only.

⁴Represents 25 oil well operations only, 1 oil and gas well operation, and 2 gas well operations only.

⁵Represents 1 oil and gas well operation and 2 gas well operations only.

⁶Represents 21 oil and gas well operations and 5 gas well operations only.

⁷Represents 22 oil and gas well operations and 5 gas well operations only.

⁸Represents 42 oil and gas well operations and 11 gas well operations only.

⁹Represents 5 oil and gas well operations and 3 gas well operations only.

¹⁰Less than one-half of the unit of measure specified.

¹¹See table 5B, footnote 11.

¹²See table 2, footnote 15.

¹³See table 3, footnote 18.

¹⁴Figures for amount received for services are included with value of natural gas.

¹⁵Figure for amount received for services is included with value of field condensate and drips and natural gas.

¹⁶See table 1, footnote 4.

¹⁷See table 2, footnote 5.

¹⁸Figures for gas well operations only are included with those for oil and gas well operations.

¹⁹Figures for 1 well in Tennessee are included with those for Kentucky and figures for 9 wells in Tennessee are included with those for Alabama.

Table 5A.—PRODUCTS AND SERVICES OF THE CRUDE PETROLEUM AND NATURAL GAS INDUSTRIES AND TOTALS FOR SUCH PRODUCTS AND SERVICES IN ALL CRUDE PETROLEUM AND NATURAL GAS EXTRACTION INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954 AND 1939

Geographic division, State, and product	Unit of measure for quantity	Crude petroleum and natural gas extraction industries, total				Crude petroleum and natural gas industries 1954		Oil and gas field contract services industries 1954			
		1954		1939 ¹		Quantity	Value at wells (\$1,000)	Quantity	Value at wells (\$1,000)		
		Quantity	Value at wells (\$1,000)	Quantity	Value at wells (\$1,000)						
UNITED STATES											
All products and services, total.....	.....	xxx	28,701,694	xxx	1,563,492	xxx	7,070,097	xxx	1,631,020	
Primary Products											
Crude petroleum, total.....	1,000 barrels.	2,195,846	xxx	(NA)	xxx	2,175,364	xxx	20,482	xxx		
Shipped.....	...do.....	2,194,210	6,074,969	1,228,134	1,251,905	2,173,734	6,019,084	20,476	55,885		
Used in lease operations:											
For power and heat.....	...do.....	664	xxx	(NA)	xxx	664	xxx	...	xxx		
For other purposes.....	...do.....	972	xxx	(NA)	xxx	966	xxx	6	xxx		
Field condensate and drips shipped.....	...do.....	25,606	77,161	859	1,179	25,600	77,140	6	21		
Natural gas:											
Gross production, total.....	Million cu.ft. ³	10,121,793	xxx	2,929,185	xxx	10,084,936	xxx	36,857	xxx		
Gas from oil wells.....	...do.....	3,433,120	xxx	1,504,626	xxx	3,415,416	xxx	17,704	xxx		
Gas from gas wells.....	...do.....	6,688,673	xxx	1,424,559	xxx	6,669,520	xxx	19,153	xxx		
Withdrawn from underground storage.....	...do.....	17,509	xxx	(NA)	xxx	17,442	xxx	67	xxx		
Purchased for use in lease operations...	...do.....	252,758	xxx	(NA)	xxx	201,571	xxx	51,187	xxx		
Gross disposition, total.....	...do.....	10,392,060	xxx	2,929,185	xxx	10,303,949	xxx	88,111	xxx		
Net deliveries to natural-gasoline plants ⁴.....	...do.....	3,175,043	411,313	(⁵)	(⁵)	3,173,560	411,201	1,483	112	
Gross deliveries to natural-gasoline plants.....	...do.....	5,374,427	xxx	(NA)	xxx	5,372,944	xxx	1,483	xxx		
Residue returned from natural-gasoline plants.....	...do.....	2,199,384	xxx	(NA)	xxx	2,199,384	xxx	...	xxx		
Used in lease operations:											
For power and heat.....	...do.....	474,953	xxx	664,177	xxx	423,653	xxx	51,300	xxx		
For gas lift (net).....	...do.....	242,134	xxx		xxx	241,630	xxx	504	xxx		
Returned to underground formations:											
For repressuring, pressure maintenance, and cycling.....	...do.....	1,311,615	xxx	xxx	xxx	1,311,615	xxx	...	xxx		
For underground storage.....	...do.....	26,513	xxx		xxx	26,513	xxx	...	xxx		
Delivered to distributors and transmission companies.....	...do.....	4,345,012	458,424	2,287,412	115,350	4,311,709	453,977	33,303	4,447		
Delivered to consumers:											
Domestic.....	...do.....	37,837	15,604			45,740	18,682	856	50		
Commercial.....	...do.....	8,759	3,128								
Industrial.....	...do.....	447,177	55,025	447,170	55,024	7	1				
Vented to air, burned in flares, and other losses.....	...do.....	323,017	xxx	(⁶)	xxx	322,359	xxx	658	xxx		
Secondary Products and Services											
Drilling oil, gas, dry, and service wells..	.....	xxx	872,210	xxx	131,353	xxx	22,287	xxx	849,923	
Drilling in, spudding in, tailing in, and reworking wells.....	.....	xxx	49,023	xxx		xxx	1,051	xxx	47,972	
Pumping wells but not operating leases....	.....	xxx	3,852	xxx		xxx	2,549	xxx	1,303	
Other oil and gas field contract services..	.....	xxx	2615,481	xxx	60,364	xxx	7,601	xxx	607,303	
Services classified in other industries....	.....	xxx	11,225	xxx	227	xxx	1,225	xxx	10,000	
Electric energy generated and sold.....	Million kwh...	22	205	(⁷)	12	22	205	...	...
Products purchased and resold without further processing.....	.....	xxx	54,038	xxx	(NA)	xxx	35	xxx	54,003	
Other products ⁸.....	.....	xxx	36	xxx	240	xxx	36	xxx	...	
MIDDLE ATLANTIC											
All products and services, total.....	.....	xxx	100,315	xxx	61,195	xxx	77,379	xxx	22,936	
Primary Products											
Crude petroleum, total.....	1,000 barrels.	11,353	xxx	(NA)	xxx	11,263	xxx	90	xxx		
Shipped.....	...do.....	11,351	38,984	17,958	36,800	11,261	38,666	90	318		
Used in lease operations:											
For power and heat.....	...do.....	1	xxx	(NA)	xxx	1	xxx	...	xxx		
For other purposes.....	...do.....	1	xxx	(NA)	xxx	1	xxx	...	xxx		
Field condensate and drips shipped.....	...do.....	6	20	3	5	6	20	...	...

See footnotes at end of table.

Table 5A.—PRODUCTS AND SERVICES OF THE CRUDE PETROLEUM AND NATURAL GAS INDUSTRIES AND TOTALS FOR SUCH PRODUCTS AND SERVICES IN ALL CRUDE PETROLEUM AND NATURAL GAS EXTRACTION INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954 AND 1939—Continued

Geographic division, State, and product	Unit of measure for quantity	Crude petroleum and natural gas extraction industries, total				Crude petroleum and natural gas industries 1954		Oil and gas field contract services industries 1954			
		1954		1939 ¹		Quantity	Value at wells (\$1,000)	Quantity	Value at wells (\$1,000)		
		Quantity	Value at wells (\$1,000)	Quantity	Value at wells (\$1,000)						
MIDDLE ATLANTIC—Continued											
Primary Products—Continued											
Natural gas:											
Gross production, total.....	Million cu.ft. ³	140,139	xxx	123,090	xxx	137,748	xxx	2,391	xxx		
Gas from oil wells.....	do.....	3,270	xxx	17,565	xxx	3,249	xxx	21	xxx		
Gas from gas wells.....	do.....	136,869	xxx	105,525	xxx	134,499	xxx	2,370	xxx		
Withdrawn from underground storage.....	do.....	7,681	xxx	(NA)	xxx	7,681	xxx	...	xxx		
Purchased for use in lease operations....	do.....	2,924	xxx	(NA)	xxx	2,625	xxx	299	xxx		
Gross disposition, total.....	do.....	150,744	xxx	123,090	xxx	148,054	xxx	2,690	xxx		
Net deliveries to natural-gasoline plants ⁴	do.....	2,894	803	(⁵)	(⁵)	2,894	803	...	...
Gross deliveries to natural-gasoline plants.....	do.....	11,512	xxx	(NA)	xxx	11,512	xxx	...	xxx		
Residue returned from natural-gasoline plants.....	do.....	8,618	xxx	(NA)	xxx	8,618	xxx	...	xxx		
Used in lease operations:											
For power and heat.....	do.....	6,522	xxx	611,357	xxx	6,216	xxx	306	xxx		
For gas lift (net).....	do.....	82	xxx		xxx	82	xxx	...	xxx		
Returned to underground formations:											
For repressuring, pressure maintenance, and cycling.....	do.....	576	xxx	511,733	xxx	576	xxx	...	xxx		
For underground storage.....	do.....	10,600	xxx		xxx	10,600	xxx	...	xxx		
Delivered to distributors and transmission companies.....	do.....	98,079	26,674	511,733	520,261	95,698	26,076	2,381	598		
Delivered to consumers:											
Domestic.....	do.....	16,133	5,996			16,130	5,995	3	1		
Commercial.....	do.....	1,820	792			1,820	792	...	...
Industrial.....	do.....	12,715	4,199			12,715	4,199	...	...
Vented to air, burned in flares, and other losses.....	do.....	1,323	xxx	(⁶)	xxx	1,323	xxx	...	xxx		
Secondary Products and Services											
Drilling oil, gas, dry, and service wells...		xxx	8,672	3,204	xxx	xxx	564	xxx	8,108		
Drilling in, spudding in, tailing in, and reworking wells.....		xxx	627			xxx	1	xxx	626		
Pumping wells but not operating leases.....		xxx	19	888	xxx	xxx	19	xxx	...		
Other oil and gas field contract services...		xxx	13,052			xxx	66	xxx	12,986		
Services classified in other industries.....		xxx	453	xxx	1	xxx	155	xxx	298		
Products purchased and resold without further processing.....		xxx	1	xxx	(NA)	xxx	...	xxx	1		
Other products ⁸		xxx	23	xxx	1	xxx	23	xxx	...		
New York											
All products and services, total.....		xxx	11,458	xxx	12,922	xxx	10,229	xxx	1,229		
Primary Products											
Crude petroleum shipped.....	1,000 barrels.	2,598	8,934	3,898	8,018	2,581	8,869	17	65		
Natural gas:											
Gross production, total.....	Million cu.ft. ³	3,890	xxx	31,328	xxx	3,890	xxx	...	xxx		
Gas from oil wells.....	do.....	718	xxx	2,804	xxx	718	xxx	...	xxx		
Gas from gas wells.....	do.....	3,172	xxx	28,524	xxx	3,172	xxx	...	xxx		
Withdrawn from underground storage.....	do.....	3	xxx	(NA)	xxx	3	xxx	...	xxx		
Purchased for use in lease operations....	do.....	687	xxx	(NA)	xxx	667	xxx	20	xxx		
Gross disposition, total.....	do.....	4,580	xxx	31,328	xxx	4,560	xxx	20	xxx		
Net deliveries to natural-gasoline plants ⁴	do.....	1	...	(⁵)	(⁵)	1	...	...	...
Used in lease operations:											
For power and heat.....	do.....	1,449	xxx	62,209	xxx	1,429	xxx	20	xxx		
For gas lift (net).....	do.....	9	xxx		xxx	9	xxx	...	xxx		
Returned to underground formations for repressuring, pressure maintenance, and cycling.....	do.....	31	xxx	62,209	xxx	31	xxx	...	xxx		

See footnotes at end of table.

Table 5A.—PRODUCTS AND SERVICES OF THE CRUDE PETROLEUM AND NATURAL GAS INDUSTRIES AND TOTALS FOR SUCH PRODUCTS AND SERVICES IN ALL CRUDE PETROLEUM AND NATURAL GAS EXTRACTION INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954 AND 1939—Continued

Geographic division, State, and product	Unit of measure for quantity	Crude petroleum and natural gas extraction industries, total				Crude petroleum and natural gas industries 1954		Oil and gas field contract services industries 1954		
		1954		1939 ¹		Quantity	Value at wells (\$1,000)	Quantity	Value at wells (\$1,000)	
		Quantity	Value at wells (\$1,000)	Quantity	Value at wells (\$1,000)					
MIDDLE ATLANTIC--Continued										
New York--Continued										
Primary Products--Continued										
Natural gas--Continued										
Gross disposition--Continued										
Delivered to distributors and transmission companies.....	Million cu. ft. ³	879	264	529,119	54,040	879	264	...	...
Delivered to consumers:										
Domestic.....	...do.....	1,118	631			1,118	631	...	...
Commercial.....	...do.....	73	56			73	56	...	...
Industrial.....	...do.....	690	386			690	386	...	...
Vented to air, burned in flares, and other losses.....	...do.....	330	xxx	(⁶)	xxx	330	xxx	...	xxx	
Secondary Products and Services										
Drilling oil, gas, dry, and service wells...	.....	xxx	713	524		xxx	10	xxx	703
Drilling in, spudding in, tailing in, and reworking wells.....	.....	xxx	198			xxx	...	xxx	198
Pumping wells but not operating leases.....	.....	xxx	...			xxx	...	xxx	...
Other oil and gas field contract services...	.....	xxx	276			xxx	13	xxx	263
Services classified in other industries.....	.....	xxx	...	xxx	1	xxx	...	xxx	...
Pennsylvania										
All products and services, total.....	.....	xxx	88,857	xxx	48,273	xxx	67,150	xxx	21,707
Primary Products										
Crude petroleum, total.....	1,000 barrels.	8,755	xxx	(NA)	xxx	8,682	xxx	73	xxx	
Shipped.....	...do.....	8,753	30,050	14,060	28,782	8,680	29,797	73	253	
Used in lease operations:										
For power and heat.....	...do.....	1	xxx	(NA)	xxx	1	xxx	...	xxx	
For other purposes.....	...do.....	1	xxx	(NA)	xxx	1	xxx	...	xxx	
Field condensate and drips shipped.....	...do.....	6	20	3	5	6	20	...	...
Natural gas:										
Gross production, total.....	Million cu. ft. ³	136,249	xxx	91,762	xxx	133,858	xxx	2,391	xxx	
Gas from oil wells.....	...do.....	2,552	xxx	14,761	xxx	2,531	xxx	21	xxx	
Gas from gas wells.....	...do.....	133,697	xxx	77,001	xxx	131,327	xxx	2,370	xxx	
Withdrawn from underground storage.....	...do.....	7,678	xxx	(NA)	xxx	7,678	xxx	...	xxx	
Purchased for use in lease operations...	...do.....	2,237	xxx	(NA)	xxx	1,958	xxx	279	xxx	
Gross disposition, total.....	...do.....	146,164	xxx	91,762	xxx	143,494	xxx	2,670	xxx	
Net deliveries to natural-gasoline plants ⁴.....	...do.....	2,893	803	(⁵)	(⁵)	2,893	803	...	...
Gross deliveries to natural-gasoline plants.....	...do.....	11,511	xxx	(NA)	xxx	11,511	xxx	...	xxx	
Residue returned from natural-gasoline plants.....	...do.....	8,618	xxx	(NA)	xxx	8,618	xxx	...	xxx	
Used in lease operations:				69,148						
For power and heat.....	...do.....	5,073	xxx			xxx	4,787	xxx	286	xxx
For gas lift (net).....	...do.....	73	xxx			xxx	73	xxx	...	xxx
Returned to underground formations:										
For repressuring, pressure maintenance, and cycling.....	...do.....	545	xxx	xxx	545	xxx	...	xxx		
For underground storage.....	...do.....	10,600	xxx	xxx	10,600	xxx	...	xxx		
Delivered to distributors and transmission companies.....	...do.....	97,200	26,410	582,614	516,221	94,819	25,812	2,381	598	
Delivered to consumers:										
Domestic.....	...do.....	15,015	5,365			15,012	5,364	3	1	
Commercial.....	...do.....	1,747	736			1,747	736	...	...
Industrial.....	...do.....	12,025	3,813			12,025	3,813	...	...
Vented to air, burned in flares, and other losses.....	...do.....	993	xxx	(⁶)	xxx	993	xxx	...	xxx	

See footnotes at end of table.

Table 5A.—PRODUCTS AND SERVICES OF THE CRUDE PETROLEUM AND NATURAL GAS INDUSTRIES AND TOTALS FOR SUCH PRODUCTS AND SERVICES IN ALL CRUDE PETROLEUM AND NATURAL GAS EXTRACTION INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954 AND 1939—Continued

Geographic division, State, and product	Unit of measure for quantity	Crude petroleum and natural gas extraction industries, total				Crude petroleum and natural gas industries 1954		Oil and gas field contract services industries 1954	
		1954		1939 ¹		Quantity	Value at wells (\$1,000)	Quantity	Value at wells (\$1,000)
		Quantity	Value at wells (\$1,000)	Quantity	Value at wells (\$1,000)				
MIDDLE ATLANTIC—Continued									
Pennsylvania—Continued									
Secondary Products and Services									
Drilling oil, gas, dry, and service wells...		xxx	7,959	xxx	2,680	xxx	554	xxx	7,405
Drilling in, spudding in, tailing in, and reworking wells.....		xxx	429	xxx		xxx	1	xxx	428
Pumping wells but not operating leases.....		xxx	19	xxx		xxx	19	xxx	...
Other oil and gas field contract services.....		xxx	12,776	xxx		xxx	53	xxx	12,723
Services classified in other industries.....		xxx	453	xxx		xxx	155	xxx	298
Products purchased and resold without further processing.....		xxx	1	xxx	(NA)	xxx	...	xxx	1
Other products ⁸		xxx	23	xxx	1	xxx	23	xxx	...
EAST NORTH CENTRAL									
All products and services, total.....	Million cu.ft. ³	xxx	320,961	xxx	⁹ 160,589	xxx	259,086	xxx	61,875
Primary Products									
Crude petroleum, total.....	1,000 barrels..	86,630	xxx	(NA)	xxx	83,816	xxx	2,814	xxx
Shipped.....	do.....	86,566	253,588	120,551	120,821	83,752	245,357	2,814	8,231
Used in lease operations:									
For power and heat.....	do.....	36	xxx	(NA)	xxx	36	xxx	...	xxx
For other purposes.....	do.....	28	xxx	(NA)	xxx	28	xxx	...	xxx
Field condensate and drips shipped.....	do.....	9	19	1	2	9	19	...	...
Natural gas:									
Gross production, total.....	Million cu. ft.	³ 50,030	xxx	60,776	xxx	48,571	xxx	1,459	xxx
Gas from oil wells.....	do.....	21,221	xxx	16,336	xxx	20,825	xxx	396	xxx
Gas from gas wells.....	do.....	28,809	xxx	44,440	xxx	27,746	xxx	1,063	xxx
Withdrawn from underground storage.....	do.....	3	xxx	(NA)	xxx	3	xxx	...	xxx
Purchased for use in lease operations...	do.....	2,133	xxx	(NA)	xxx	1,492	xxx	641	xxx
Gross disposition, total.....	do.....	52,166	xxx	60,776	xxx	50,066	xxx	2,100	xxx
Net deliveries to natural-gasoline plants ⁴	do.....	5,677	748	(⁵)	(⁵)	5,677	748	...	...
Gross deliveries to natural-gasoline plants.....	do.....	11,446	xxx	(NA)	xxx	11,446	xxx	...	xxx
Residue returned from natural-gasoline plants.....	do.....	5,769	xxx	(NA)	xxx	5,769	xxx	...	xxx
Used in lease operations:									
For power and heat.....	do.....	8,070	xxx	⁶ 13,955	xxx	7,427	xxx	643	xxx
For gas lift (net).....	do.....	724	xxx		xxx	724	xxx	...	xxx
Returned to underground formations:									
For repressuring, pressure maintenance, and cycling.....	do.....	2,423	xxx		xxx	2,423	xxx	...	xxx
For underground storage.....	do.....	102	xxx		xxx	102	xxx	...	xxx
Delivered to distributors and transmission companies.....	do.....	18,281	4,738	⁵ 46,821	⁵ 8,333	16,832	4,310	1,449	428
Delivered to consumers:									
Domestic.....	do.....	4,973	2,933		⁵ 8,333	4,973	2,933	...	...
Commercial.....	do.....	937	506			937	506	...	...
Industrial.....	do.....	6,455	2,011			6,448	2,010	7	1
Vented to air, burned in flares, and other losses.....	do.....	4,524	xxx	(⁶)	xxx	4,523	xxx	1	xxx
Secondary Products and Services									
Drilling oil, gas, dry, and service wells...		xxx	39,268	xxx	24,022	xxx	2,125	xxx	37,143
Drilling in, spudding in, tailing in, and reworking wells.....		xxx	2,899	xxx		xxx	135	xxx	2,764
Pumping wells but not operating leases.....		xxx	408	xxx		xxx	183	xxx	225
Other oil and gas field contract services.....		xxx	12,061	xxx		xxx	472	xxx	11,589
Services classified in other industries.....		xxx	886	xxx		xxx	224	xxx	662
Electric energy generated and sold.....	Million kwh....	5	61	xxx	(⁷)	5	61	...	...
Products purchased and resold without further processing.....		xxx	832	xxx	(NA)	xxx	...	xxx	832
Other products ⁸		xxx	3	xxx	11	xxx	3	xxx	...

See footnotes at end of table.

Table 5A.—PRODUCTS AND SERVICES OF THE CRUDE PETROLEUM AND NATURAL GAS INDUSTRIES AND TOTALS FOR SUCH PRODUCTS AND SERVICES IN ALL CRUDE PETROLEUM AND NATURAL GAS EXTRACTION INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954 AND 1939—Continued

Geographic division, State, and product	Unit of measure for quantity	Crude petroleum and natural gas extraction industries, total				Crude petroleum and natural gas industries 1954		Oil and gas field contract services industries 1954			
		1954		1939 ¹		Quantity	Value at wells (\$1,000)	Quantity	Value at wells (\$1,000)		
		Quantity	Value at wells (\$1,000)	Quantity	Value at wells (\$1,000)						
EAST NORTH CENTRAL—Continued											
Ohio ¹¹											
All products and services, total.....		xxx	22,931	xxx	10,058	xxx	16,665	xxx	6,266		
Primary Products											
Crude petroleum, total.....	1,000 barrels	2,985	xxx	(NA)	xxx	2,871	xxx	114	xxx		
Shipped.....	do.	2,983	8,201	2,030	2,471	2,869	7,870	114	331		
Used in lease operations:											
For power and heat.....	do.	1	xxx	(NA)	xxx	1	xxx	...	xxx		
For other purposes.....	do.	1	xxx	(NA)	xxx	1	xxx	...	xxx		
Field condensate and drips shipped.....	do.	2	4	(7)	(7)	2	4	...	...
Natural gas:											
Gross production, total.....	Million cu.ft. ³	26,007	xxx	37,752	xxx	25,011	xxx	996	xxx		
Gas from oil wells.....	do.	2,658	xxx	2,970	xxx	2,578	xxx	80	xxx		
Gas from gas wells.....	do.	23,349	xxx	34,782	xxx	22,433	xxx	916	xxx		
Withdrawn from underground storage.....	do.	...	xxx	(NA)	xxx	...	xxx	...	xxx		
Purchased for use in lease operations....	do.	360	xxx	(NA)	xxx	123	xxx	237	xxx		
Gross disposition, total.....	do.	26,367	xxx	37,752	xxx	25,134	xxx	1,233	xxx		
Net deliveries to natural-gasoline plant ⁴	do.	799	163	(5)	(5)	799	163	...	...
Gross deliveries to natural-gasoline plants ⁴	do.	4,357	xxx	(NA)	xxx	4,357	xxx	...	xxx		
Residue returned from natural-gasoline plants.....	do.	3,558	xxx	(NA)	xxx	3,558	xxx	...	xxx		
Used in lease operations:											
For power and heat.....	do.	742	xxx	63,752	xxx	505	xxx	237	xxx		
For gas lift (net).....	do.	19	xxx		xxx	19	xxx	...	xxx		
Returned to underground formations:											
For repressuring, pressure maintenance, and cycling.....	do.	86	xxx		xxx	86	xxx	...	xxx		
For underground storage.....	do.	102	xxx		xxx	102	xxx	...	xxx		
Delivered to distributors and transmission companies.....	do.	14,980	3,917	34,000	56,925	13,984	3,623	996	294		
Delivered to consumers:											
Domestic.....	do.	4,752	2,866			4,752	2,866	...	...
Commercial.....	do.	875	488			875	488	...	...
Industrial.....	do.	3,413	1,377			3,413	1,377	...	...
Vented to air, burned in flares, and other losses.....	do.	599	xxx	(6)	xxx	599	xxx	...	xxx		
Secondary Products and Services											
Drilling oil, gas, dry, and service wells...		xxx	5,003	xxx	533	xxx	135	xxx	4,868		
Drilling in, spudding in, tailing in, and reworking wells.....		xxx	91	xxx		xxx	...	xxx	91		
Pumping wells but not operating leases.....		xxx	9	xxx		xxx	8	xxx	1		
Other oil and gas field contract services...		xxx	700	xxx	127	xxx	105	xxx	595		
Services classified in other industries.....		xxx	90	xxx	...	xxx	25	xxx	65		
Products purchased and resold without further processing.....		xxx	21	xxx	(NA)	xxx	...	xxx	21		
Other products ⁸		xxx	1	xxx	(7)	xxx	1	xxx	...		
Indiana											
All products and services, total.....		xxx	30,687	xxx	2,417	xxx	26,188	xxx	4,499		
Primary Products											
Crude petroleum, total.....	1,000 barrels.	8,910	xxx	(NA)	xxx	8,766	xxx	144	xxx		
Shipped.....	do.	8,905	26,015	1,645	1,569	8,761	25,594	144	421		
Used in lease operations:											
For power and heat.....	do.	3	xxx	(NA)	xxx	3	xxx	...	xxx		
For other purposes.....	do.	2	xxx	(NA)	xxx	2	xxx	...	xxx		

See footnotes at end of table.

Table 5A.—PRODUCTS AND SERVICES OF THE CRUDE PETROLEUM AND NATURAL GAS INDUSTRIES AND TOTALS FOR SUCH PRODUCTS AND SERVICES IN ALL CRUDE PETROLEUM AND NATURAL GAS EXTRACTION INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954 AND 1939—Continued

Geographic division, State, and product	Unit of measure for quantity	Crude petroleum and natural gas extraction industries, total				Crude petroleum and natural gas industries 1954		Oil and gas field contract services industries 1954	
		1954		1939 ¹		Quantity	Value at wells (\$1,000)	Quantity	Value at wells (\$1,000)
		Quantity	Value at wells (\$1,000)	Quantity	Value at wells (\$1,000)				
EAST NORTH CENTRAL—Continued									
Indiana—Continued									
Primary Products—Continued									
Natural gas:									
Gross production, total.....	Million cu.ft. ³	2,285	xxx	1,332	xxx	2,271	xxx	14	xxx
Gas from oil wells.....	.....do.....	999	xxx	431	xxx	985	xxx	14	xxx
Gas from gas wells.....	.....do.....	1,286	xxx	901	xxx	1,286	xxx	...	xxx
Withdrawn from underground storage.....	.....do.....	...	xxx	(NA)	xxx	...	xxx	...	xxx
Purchased for use in lease operations...	.....do.....	341	xxx	(NA)	xxx	326	xxx	15	xxx
Gross disposition, total.....	.....do.....	2,626	xxx	1,332	xxx	2,597	xxx	29	xxx
Net deliveries to natural-gasoline plants ⁴.....	.....do.....	302	18	(⁵)	(⁵)	302	18	...	...
Gross deliveries to natural-gasoline plants.....	.....do.....	358	xxx	(NA)	xxx	358	xxx	...	xxx
Residue returned from natural-gasoline plants.....	.....do.....	56	xxx	(NA)	xxx	56	xxx	...	xxx
Used in lease operations:									
For power and heat.....	.....do.....	681	xxx	6627	xxx	666	xxx	15	xxx
For gas lift (net).....	.....do.....	2	xxx		xxx	2	xxx	...	xxx
Returned to underground formations for repressuring, pressure maintenance, and cycling.....	.....do.....	97	xxx	5705	xxx	97	xxx	...	xxx
Delivered to distributors and transmission companies.....	.....do.....	1,256	318		5115	1,242	314	14	4
Delivered to consumers:									
Domestic.....	.....do.....	43	24	72	6	43	24	...	...
Industrial.....	.....do.....	72	6			72	6	...	...
Vented to air, burned in flares, and other losses.....	.....do.....	173	xxx	(⁶)	xxx	173	xxx	...	xxx
Secondary Products and Services									
Drilling oil, gas, dry, and service wells..	.....	xxx	2,804	xxx	580	xxx	168	xxx	2,636
Drilling in, spudding in, tailing in, and reworking wells.....	.....	xxx	51			xxx	6	xxx	45
Pumping wells but not operating leases.....	.....	xxx	67	xxx	(7)	xxx	38	xxx	29
Other oil and gas field contract services..	.....	xxx	1,301			xxx	12	xxx	1,289
Services classified in other industries....	.....	xxx	(D)	xxx	...	xxx	...	xxx	(D)
Electric energy generated and sold.....	Million kwh...	1	8	...	...	1	8	...	...
Products purchased and resold without further processing.....	.....	xxx	(D)	xxx	(NA)	xxx	...	xxx	(D)
Other products ⁸.....	.....	xxx	...	xxx	1	xxx	...	xxx	...
Illinois									
All products and services, total.....	.....	xxx	224,266	xxx	120,891	xxx	182,138	xxx	42,128
Primary Products									
Crude petroleum, total.....	1,000 barrels	63,308	xxx	(NA)	xxx	61,031	xxx	2,277	xxx
Shipped.....	.....do.....	63,253	186,496	93,594	95,972	60,976	179,820	2,277	6,676
Used in lease operations:									
For power and heat.....	.....do.....	32	xxx	(NA)	xxx	32	xxx	...	xxx
For other purposes.....	.....do.....	23	xxx	(NA)	xxx	23	xxx	...	xxx
Field condensate and drips shipped.....	.....do.....	1	4	1	2	1	4	...	...
Natural gas:									
Gross production, total.....	Million cu.ft. ³	10,865	xxx	8,980	xxx	10,846	xxx	19	xxx
Gas from oil wells.....	.....do.....	10,773	xxx	7,928	xxx	10,754	xxx	19	xxx
Gas from gas wells.....	.....do.....	92	xxx	1,052	xxx	92	xxx	...	xxx
Withdrawn from underground storage.....	.....do.....	3	xxx	(NA)	xxx	3	xxx	...	xxx
Purchased for use in lease operations...	.....do.....	1,265	xxx	(NA)	xxx	887	xxx	378	xxx

See footnotes at end of table.

Table 5A.—PRODUCTS AND SERVICES OF THE CRUDE PETROLEUM AND NATURAL GAS INDUSTRIES AND TOTALS FOR SUCH PRODUCTS AND SERVICES IN ALL CRUDE PETROLEUM AND NATURAL GAS EXTRACTION INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954 AND 1939—Continued

Geographic division, State, and product	Unit of measure for quantity	Crude petroleum and natural gas extraction industries, total				Crude petroleum and natural gas industries 1954		Oil and gas field contract services industries 1954			
		1954		1939 ¹		Quantity	Value at wells (\$1,000)	Quantity	Value at wells (\$1,000)		
		Quantity	Value at wells (\$1,000)	Quantity	Value at wells (\$1,000)						
EAST NORTH CENTRAL—Continued											
Illinois—Continued											
Primary Products—Continued											
Natural gas—Continued											
Gross disposition, total.....	Million cu.ft. ³	12,133	xxx	8,980	xxx	11,736	xxx	397	xxx		
Net deliveries to natural-gasoline plants ⁴	do.....	3,367	439	(⁵)	(⁵)	3,367	439	...	...
Gross deliveries to natural-gasoline plants.....	do.....	5,450	xxx	(NA)	xxx	5,450	xxx	...	xxx		
Residue returned from natural-gasoline plants.....	do.....	2,083	xxx	(NA)	xxx	2,083	xxx	...	xxx		
Used in lease operations:											
For power and heat.....	do.....	4,956	xxx	66,180	xxx	4,578	xxx	378	xxx		
For gas lift (net).....	do.....	639	xxx		xxx	639	xxx	...	xxx		
Returned to underground formations:											
For repressuring, pressure maintenance, and cycling.....	do.....	320	xxx	52,800	xxx	320	xxx	...	xxx		
For underground storage.....	do.....	...	xxx		xxx	...	xxx	...	xxx		
Delivered to distributors and transmission companies.....	do.....	126	18	52,800	584	107	14	19	4		
Delivered to consumers:											
Domestic.....	do.....	59	7			59	7	...	...
Commercial.....	do.....	...	...			...	...	...	...
Industrial.....	do.....	30	3	30	3	...	...	...	...
Vented to air, burned in flares, and other losses.....	do.....	2,636	xxx	(⁶)	xxx	2,636	xxx	...	xxx		
Secondary Products and Services											
Drilling oil, gas, dry, and service wells...		xxx	24,009	xxx	20,499	xxx	1,202	xxx	22,807		
Drilling in, spudding in, tailing in, and reworking wells.....		xxx	2,710	xxx		xxx	129	xxx	2,581		
Pumping wells but not operating leases.....		xxx	187	xxx		xxx	48	xxx	139		
Other oil and gas field contract services...		xxx	8,901	xxx		4,250	xxx	233	xxx	8,668	
Services classified in other industries.....		xxx	711	xxx	1	xxx	184	xxx	527		
Electric energy generated and sold.....	Million kwh...	4	53	(⁷)	(⁷)	4	53	...	...
Products purchased and resold without further processing.....		xxx	726	xxx	(NA)	xxx	...	xxx	726		
Other products ⁸		xxx	2	xxx	10	xxx	2	xxx	...		
Michigan ¹¹											
All products and services, total.....		xxx	43,077	xxx	27,223	xxx	34,095	xxx	8,982		
Primary Products											
Crude petroleum, total.....	1,000 barrels.	11,427	xxx	(NA)	xxx	11,148	xxx	279	xxx		
Shipped.....	do.....	11,425	32,876	23,282	20,809	11,146	32,073	279	803		
Used in lease operations for purposes other than power and heat.....	do.....	2	xxx	(NA)	xxx	2	xxx	...	xxx		
Field condensate and drips shipped.....	do.....	6	11	...	...	6	11	...	...
Natural gas:											
Gross production, total.....	Million cu.ft. ³	10,873	xxx	12,712	xxx	10,443	xxx	430	xxx		
Gas from oil wells.....	do.....	6,791	xxx	5,007	xxx	6,508	xxx	283	xxx		
Gas from gas wells.....	do.....	4,082	xxx	7,705	xxx	3,935	xxx	147	xxx		
Withdrawn from underground storage.....	do.....	...	xxx	(NA)	xxx	...	xxx	...	xxx		
Purchased for use in lease operations....	do.....	167	xxx	(NA)	xxx	156	xxx	11	xxx		
Gross disposition, total.....	do.....	11,040	xxx	12,712	xxx	10,599	xxx	441	xxx		
Net deliveries to natural-gasoline plants ⁴	do.....	1,209	128	(⁵)	(⁵)	1,209	128	...	...
Gross deliveries to natural-gasoline plants.....	do.....	1,281	xxx	(NA)	xxx	1,281	xxx	...	xxx		
Residue returned from natural-gasoline plants.....	do.....	72	xxx	(NA)	xxx	72	xxx	...	xxx		
Used in lease operations:											
For power and heat.....	do.....	1,691	xxx	63,396	xxx	1,678	xxx	13	xxx		
For gas lift (net).....	do.....	64	xxx		xxx	64	xxx	...	xxx		

See footnotes at end of table.

Table 5A.—PRODUCTS AND SERVICES OF THE CRUDE PETROLEUM AND NATURAL GAS INDUSTRIES AND TOTALS FOR SUCH PRODUCTS AND SERVICES IN ALL CRUDE PETROLEUM AND NATURAL GAS EXTRACTION INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954 AND 1939—Continued

Geographic division, State, and product	Unit of measure for quantity	Crude petroleum and natural gas extraction industries, total				Crude petroleum and natural gas industries 1954		Oil and gas field contract services industries 1954	
		1954		1939 ¹		Quantity	Value at wells (\$1,000)	Quantity	Value at wells (\$1,000)
		Quantity	Value at wells (\$1,000)	Quantity	Value at wells (\$1,000)				
EAST NORTH CENTRAL—Continued									
Michigan—Continued									
Primary Products—Continued									
Natural gas—Continued									
Gross disposition—Continued									
Returned to underground formations:									
For repressuring, pressure maintenance, and cycling.....	Million cu.ft. ³	1,920	xxx	}	xxx	1,920	xxx	...	xxx
For underground storage.....	....do.....	...	xxx		xxx	...	xxx	...	xxx
Delivered to distributors and transmission companies.....	....do.....	1,919	485	}	⁵ 9,316	1,499	359	420	126
Delivered to consumers:									
Domestic.....	....do.....	119	36						
Commercial.....	....do.....	62	18						
Industrial.....	....do.....	2,940	625	}	⁵ 1,209	2,933	624	7	1
Vented to air, burned in flares, and other losses.....	....do.....	1,116	xxx						
				(⁶)	xxx	1,115	xxx	1	xxx
Secondary Products and Services									
Drilling oil, gas, dry, and service wells..	.....	xxx	7,452	}	2,410	xxx	620	xxx	6,832
Drilling in, spudding in, tailing in, and reworking wells.....	.....	xxx	47						
Pumping wells but not operating leases....	.....	xxx	145	}	¹⁰ 30	xxx	89	xxx	56
Other oil and gas field contract services..	.....	xxx	1,159						
Services classified in other industries....	.....	xxx	(D)	}	13	xxx	15	xxx	(D)
Products purchased and resold without further processing.....	.....	xxx	(D)						
				xxx	(NA)	xxx	...	xxx	(D)
WEST NORTH CENTRAL									
All products and services, total.....	.....	xxx	462,418	xxx	^{12 13} 74,379	xxx	382,708	xxx	79,710
Primary Products									
Crude petroleum, total.....	1,000 barrels.	124,297	xxx	(NA)	xxx	121,260	xxx	3,037	xxx
Shipped.....	....do.....	124,153	339,049	57,351	59,254	121,122	330,870	3,031	8,179
Used in lease operations:									
For power and heat.....	....do.....	71	xxx	(NA)	xxx	71	xxx	...	xxx
For other purposes.....	....do.....	73	xxx	(NA)	xxx	67	xxx	6	xxx
Field condensate and drips shipped.....	....do.....	21	64	45	50	21	64	...	...
Natural gas:									
Gross production, total.....	Million cu.ft. ³	404,787	xxx	84,358	xxx	401,172	xxx	3,615	xxx
Gas from oil wells.....	....do.....	19,629	xxx	25,802	xxx	18,259	xxx	1,370	xxx
Gas from gas wells.....	....do.....	385,158	xxx	58,556	xxx	382,913	xxx	2,245	xxx
Withdrawn from underground storage.....	....do.....	640	xxx	(NA)	xxx	640	xxx	...	xxx
Purchased for use in lease operations...	....do.....	21,253	xxx	(NA)	xxx	20,560	xxx	693	xxx
Gross disposition, total.....	....do.....	426,680	xxx	84,358	xxx	422,372	xxx	4,308	xxx
Net deliveries to natural-gasoline plants ⁴.....	....do.....	109,969	15,646	(⁵)	(⁵)	109,459	15,628	510	18
Gross deliveries to natural-gasoline plants.....	....do.....	149,770	xxx	(NA)	xxx	149,260	xxx	510	xxx
Residue returned from natural-gasoline plants.....	....do.....	39,801	xxx	(NA)	xxx	39,801	xxx	...	xxx
Used in lease operations:									
For power and heat.....	....do.....	26,441	xxx	}	xxx	25,713	xxx	728	xxx
For gas lift (net).....	....do.....	331	xxx						
Returned to underground formations for repressuring, pressure maintenance, and cycling.....	....do.....	1,618	xxx	}	xxx	1,618	xxx	...	xxx
Delivered to distributors and transmission companies.....	....do.....	279,962	30,998						
Delivered to consumers:									
Domestic.....	....do.....	116	33	}	⁵ 78,416	116	33	...	...
Commercial.....	....do.....	48	12						
Industrial.....	....do.....	6,098	668						
Vented to air, burned in flares, and other losses.....	....do.....	2,097	xxx	(⁶)	xxx	2,077	xxx	20	xxx

See footnotes at end of table.

Table 5A.—PRODUCTS AND SERVICES OF THE CRUDE PETROLEUM AND NATURAL GAS INDUSTRIES AND TOTALS FOR SUCH PRODUCTS AND SERVICES IN ALL CRUDE PETROLEUM AND NATURAL GAS EXTRACTION INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954 AND 1939—Continued

Geographic division; State, and product	Unit of measure for quantity	Crude petroleum and natural gas extraction industries, total				Crude petroleum and natural gas industries 1954		Oil and gas field contract services industries 1954		
		1954		1939 ¹		Quantity	Value at wells (\$1,000)	Quantity	Value at wells (\$1,000)	
		Quantity	Value at wells (\$1,000)	Quantity	Value at wells (\$1,000)					
WEST NORTH CENTRAL—Continued										
Secondary Products and Services										
Drilling oil, gas, dry, and service wells..	.....	xxx	49,098	xxx	9,944 {	xxx	3,300	xxx	45,798
Drilling in, spudding in, tailing in, and reworking wells.....	.....	xxx	3,952	xxx		xxx	65	xxx	3,887
Pumping wells but not operating leases.....	.....	xxx	490	xxx		xxx	378	xxx	112
Other oil and gas field contract services.....	xxx	20,866	xxx		131,534	xxx	838	xxx	20,028
Services classified in other industries....	xxx	1,305	xxx		28	xxx	314	xxx	991
Electric energy generated and sold.....	Million kwh...	...	...	xxx	(7)	...	...	...	...
Products purchased and resold without further processing.....	.....	xxx	237	xxx	(NA)	xxx	...	xxx	237
Other products ⁸.....	.....	xxx	...	...	9	xxx	...	xxx	...
<u>Missouri</u>										
All products and services, total.....	.....	xxx	306	xxx	1259	xxx	(D)	xxx	(D)
Primary Products										
Crude petroleum, total.....	1,000 barrels.	(D)	xxx	(NA)	xxx	(D)	xxx	...	xxx	
Shipped.....	...do.....	(D)	(D)	26	21	(D)	(D)	...	...
Natural gas:										
Gross production, total.....	Million cu.ft. ³	(D)	xxx	398	xxx	(D)	xxx	...	xxx	
Gas from oil wells.....	...do.....	(D)	xxx	2	xxx	(D)	xxx	...	xxx	
Gas from gas wells.....	...do.....	(D)	xxx	396	xxx	(D)	xxx	...	xxx	
Gross disposition, total.....	...do.....	(D)	xxx	398	xxx	(D)	xxx	...	xxx	
Used in lease operations for power and heat.....	...do.....	13	xxx	662	xxx	13	xxx	...	xxx	
Delivered to distributors and transmission companies.....	...do.....	(D)	(D)	536	536 {	(D)	(D)	...	...
Delivered to consumers.....	...do.....	...	...			...	...	...	...
Secondary Products and Services										
Drilling oil, gas, dry, and service wells...	.....	xxx	(D)	xxx	122	xxx	...	xxx	(D)
Other oil and gas field contract services...	.....	xxx	(D)	xxx	(12)	xxx	...	xxx	(D)
Services classified in other industries.....	.....	xxx	3	xxx	...	xxx	...	xxx	3
<u>North Dakota¹⁴</u>										
All products and services, total.....	.....	xxx	19,110	xxx	...	xxx	12,028	xxx	7,082
Primary Products										
Crude petroleum, total.....	1,000 barrels.	5,866	xxx	...	xxx	5,607	xxx	259	xxx	
Shipped.....	...do.....	5,780	12,509	...	...	5,521	11,951	259	558
Used in lease operations:										
For power and heat.....	...do.....	49	xxx	(NA)	xxx	49	xxx	...	xxx	
For other purposes.....	...do.....	37	xxx	(NA)	xxx	37	xxx	...	xxx	
Natural gas:										
Gross production, total.....	Million cu.ft. ³	2,683	xxx	...	xxx	2,548	xxx	135	xxx	
Gas from oil wells.....	...do.....	2,515	xxx	...	xxx	2,380	xxx	135	xxx	
Gas from gas wells.....	...do.....	168	xxx	...	xxx	168	xxx	...	xxx	
Purchased for use in lease operations....	...do.....	322	xxx	(NA)	xxx	183	xxx	139	xxx	
Gross disposition, total.....	...do.....	3,005	xxx	...	xxx	2,731	xxx	274	xxx	
Net deliveries to natural-gasoline plants ⁴.....	...do.....	1,534	52	...	...	1,534	52	...	...
Gross deliveries to natural-gasoline plants.....	...do.....	1,719	xxx	...	xxx	1,719	xxx	...	xxx	
Residue returned from natural-gasoline plants.....	...do.....	185	xxx	...	xxx	185	xxx	...	xxx	
Used in lease operations:										
For power and heat.....	...do.....	945	xxx	...	xxx	801	xxx	144	xxx	
For gas lift (net).....	...do.....	7	xxx	...	xxx	7	xxx	...	xxx	
Delivered to distributors and transmission companies.....	...do.....	(D)	(D)	...	...	(D)	(D)	(D)	(D)
Delivered to industrial consumers.....	...do.....	(D)	(D)	...	...	(D)	(D)	...	...
Vented to air, burned in flares, and other losses.....	...do.....	(D)	xxx	...	xxx	(D)	xxx	...	xxx	

See footnotes at end of table.

Table 5A.—PRODUCTS AND SERVICES OF THE CRUDE PETROLEUM AND NATURAL GAS INDUSTRIES AND TOTALS FOR SUCH PRODUCTS AND SERVICES IN ALL CRUDE PETROLEUM AND NATURAL GAS EXTRACTION INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954 AND 1939—Continued

Geographic division, State, and product	Unit of measure for quantity	Crude petroleum and natural gas extraction industries, total				Crude petroleum and natural gas industries 1954		Oil and gas field contract services industries 1954		
		1954		1939 ¹		Quantity	Value at wells (\$1,000)	Quantity	Value at wells (\$1,000)	
		Quantity	Value at wells (\$1,000)	Quantity	Value at wells (\$1,000)					
WEST NORTH CENTRAL—Continued										
<u>Kansas¹⁴—Continued</u>										
Primary Products—Continued										
Natural gas:										
Gross production, total.....	Million cu.ft. ³	395,014	xxx	83,960	xxx	391,578	xxx	3,436	xxx	
Gas from oil wells.....	do.....	14,336	xxx	25,800	xxx	13,145	xxx	1,191	xxx	
Gas from gas wells.....	do.....	380,678	xxx	58,160	xxx	378,433	xxx	2,245	xxx	
Withdrawn from underground storage.....	do.....	635	xxx	(NA)	xxx	635	xxx	...	xxx	
Purchased for use in lease operations....	do.....	20,483	xxx	(NA)	xxx	19,929	xxx	554	xxx	
Gross disposition, total.....	do.....	416,132	xxx	83,960	xxx	412,142	xxx	3,990	xxx	
Net deliveries to natural-gasoline plants ⁴	do.....	105,269	15,024	(⁵)	(⁵)	104,759	15,006	510	18	
Gross deliveries to natural-gasoline plants.....	do.....	144,836	xxx	(NA)	xxx	144,326	xxx	510	xxx	
Residue returned from natural-gasoline plants.....	do.....	39,567	xxx	(NA)	xxx	39,567	xxx	...	xxx	
Used in lease operations:										
For power and heat.....	do.....	24,602	xxx	65,880	xxx	24,018	xxx	584	xxx	
For gas lift (net).....	do.....	324	xxx		xxx	321	xxx	3	xxx	
Returned to underground formations for repressuring, pressure maintenance, and cycling.....	do.....	1,618	xxx	78,080	xxx	1,618	xxx	...	xxx	
Delivered to distributors and transmission companies.....	do.....	277,490	30,705		53,443	274,617	30,290	2,873	415	
Delivered to consumers:										
Domestic.....	do.....	(D)	(D)			(D)	(D)	...	...
Commercial.....	do.....	(D)	(D)			(D)	(D)	...	...
Industrial.....	do.....	5,689	624		5,689	624	...	...
Vented to air, burned in flares, and other losses.....	do.....	983	xxx	(⁶)	xxx	963	xxx	20	xxx	
Secondary Products and Services										
Drilling oil, gas, dry, and service wells...		xxx	41,910	xxx	9,942	xxx	(D)	xxx	(D)	
Drilling in, spudding in, tailing in, and reworking wells.....		xxx	3,919	xxx		xxx	65	xxx	3,854	
Pumping wells but not operating leases.....		xxx	475	xxx	81	xxx	363	xxx	112	
Other oil and gas field contract services...		xxx	17,708	xxx	131,534	xxx	838	xxx	16,870	
Services classified in other industries.....		xxx	999	xxx	28	xxx	(D)	xxx	(D)	
Electric energy generated and sold.....	Million kwh...	...	...	(⁷)	(⁷)	...	...	...	...
Products purchased and resold without further processing.....		xxx	106	xxx	(NA)	xxx	...	xxx	106	
Other products ⁸		xxx	...	xxx	9	xxx	...	xxx	...	
<u>Iowa and South Dakota</u>										
All products and services, total.....		xxx	796	xxx	(¹²)	xxx	(D)	xxx	(D)	
Primary Products										
Crude petroleum, total.....	1,000 barrels.	(D)	xxx	(¹²)	xxx	(D)	xxx	...	xxx	
Shipped.....	do.....	(D)	(D)	(¹²)	(¹²)	(D)	(D)	...	...
Used in lease operations for purposes other than power and heat.....	do.....	1	xxx	(NA)	xxx	1	xxx	...	xxx	
Natural gas:										
Gross production.....	Million cu.ft. ³	(D)	xxx	(¹²)	xxx	(D)	xxx	...	xxx	
Gross disposition, total.....	do.....	(D)	xxx	(¹²)	xxx	(D)	xxx	...	xxx	
Delivered to domestic and commercial consumers.....	do.....	(D)	(D)	(¹²)	(¹²)	(D)	(D)	...	...
Vented to air, burned in flares, and other losses.....	do.....	(D)	xxx	(¹²)	xxx	(D)	xxx	...	xxx	
Secondary Products and Services										
Drilling oil, gas, dry, and service wells...		xxx	(D)	xxx	...	xxx	...	xxx	(D)	
Other oil and gas field contract services...		xxx	(D)	xxx	(¹²)	xxx	...	xxx	(D)	
Products purchased and resold without further processing.....		xxx	(D)	xxx	(NA)	xxx	...	xxx	(D)	

See footnotes at end of table.

Table 5A.—PRODUCTS AND SERVICES OF THE CRUDE PETROLEUM AND NATURAL GAS INDUSTRIES AND TOTALS FOR SUCH PRODUCTS AND SERVICES IN ALL CRUDE PETROLEUM AND NATURAL GAS EXTRACTION INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954 AND 1939—Continued

Geographic division, State, and product	Unit of measure for quantity	Crude petroleum and natural gas extraction industries, total				Crude petroleum and natural gas industries 1954		Oil and gas field contract services industries 1954			
		1954		1939 ¹		Quantity	Value at wells (\$1,000)	Quantity	Value at wells (\$1,000)		
		Quantity	Value at wells (\$1,000)	Quantity	Value at wells (\$1,000)						
SOUTH ATLANTIC											
All products and services, total.....		xxx	65,591	xxx	¹⁵ 24,384	xxx	55,202	xxx	10,389		
Primary Products											
Crude petroleum, total.....	1,000 barrels.	3,225	xxx	(NA)	xxx	3,154	xxx	71	xxx		
Shipped.....	do.....	3,222	8,953	3,251	5,432	3,151	8,753	71	200		
Used in lease operations:											
For power and heat.....	do.....	2	xxx	(NA)	xxx	2	xxx	...	xxx		
For other purposes.....	do.....	1	xxx	(NA)	xxx	1	xxx	...	xxx		
Field condensate and drips shipped.....	do.....	9	31	284	339	9	27	(7)	4		
Natural gas:											
Gross production, total.....	Million cu.ft. ³	173,498	xxx	154,990	xxx	172,447	xxx	1,051	xxx		
Gas from oil wells.....	do.....	5,856	xxx	20,988	xxx	5,828	xxx	28	xxx		
Gas from gas wells.....	do.....	167,642	xxx	134,002	xxx	166,619	xxx	1,023	xxx		
Withdrawn from underground storage.....	do.....	5,591	xxx	(NA)	xxx	5,591	xxx	...	xxx		
Purchased for use in lease operations.....	do.....	591	xxx	(NA)	xxx	374	xxx	217	xxx		
Gross disposition, total.....	do.....	179,680	xxx	154,990	xxx	178,412	xxx	1,268	xxx		
Net deliveries to natural-gasoline plants ⁴	do.....	4,658	3,030	(⁵)	(⁵)	4,658	3,030	...	...
Gross deliveries to natural-gasoline plants.....	do.....	80,302	xxx	(NA)	xxx	80,302	xxx	...	xxx		
Residue returned from natural-gasoline plants.....	do.....	75,644	xxx	(NA)	xxx	75,644	xxx	...	xxx		
Used in lease operations:											
For power and heat.....	do.....	2,940	xxx	} ⁶ 18,208 {	xxx	2,737	xxx	203	xxx		
For gas lift (net).....	do.....	124	xxx		xxx	105	xxx	19	xxx		
Returned to underground formations:											
For repressuring, pressure maintenance, and cycling.....	do.....	1,294	xxx	} ⁵ 136,782 {	xxx	1,294	xxx	...	xxx		
For underground storage.....	do.....	7,136	xxx		xxx	7,136	xxx	...	xxx		
Delivered to distributors and transmission companies.....	do.....	126,070	30,534	} ⁵ 136,782 {	} ⁵ 17,199 {	125,024	30,279	1,046	255		
Delivered to consumers:											
Domestic.....	do.....	11,359	5,148			11,359	5,148	...	...
Commercial.....	do.....	3,009	1,319			3,009	1,319	...	...
Industrial.....	do.....	22,062	6,535			22,062	6,535	...	...
Vented to air, burned in flares, and other losses.....	do.....	1,028	xxx	(⁶)	xxx	1,028	xxx	...	xxx		
Secondary Products and Services											
Drilling oil, gas, dry, and service wells...		xxx	7,895	xxx	} 1,220 {	xxx	...	xxx	7,895		
Drilling in, spudding in, tailing in, and reworking wells.....		xxx	168	xxx		xxx	...	xxx	168		
Pumping wells but not operating leases.....		xxx	30	xxx	26	xxx	12	xxx	18		
Other oil and gas field contract services...		xxx	1,654	xxx	¹⁵ 168	xxx	63	xxx	1,591		
Services classified in other industries.....		xxx	208	xxx	(7)	xxx	1	xxx	207		
Products purchased and resold without further processing.....		xxx	86	xxx	(NA)	xxx	35	xxx	51		
West Virginia											
All products and services, total.....		xxx	61,944	xxx	¹⁵ 24,384	xxx	53,340	xxx	8,604		
Primary Products											
Crude petroleum, total.....	1,000 barrels.	2,671	xxx	(NA)	xxx	(D)	xxx	(D)	xxx		
Shipped.....	do.....	2,668	7,872	3,251	5,432	(D)	(D)	(D)	(D)		
Used in lease operations:											
For power and heat.....	do.....	2	xxx	(NA)	xxx	2	xxx	...	xxx		
For other purposes.....	do.....	1	xxx	(NA)	xxx	1	xxx	...	xxx		

See footnotes at end of table.

Table 5A.—PRODUCTS AND SERVICES OF THE CRUDE PETROLEUM AND NATURAL GAS INDUSTRIES AND TOTALS FOR SUCH PRODUCTS AND SERVICES IN ALL CRUDE PETROLEUM AND NATURAL GAS EXTRACTION INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954 AND 1939—Continued

Geographic division, State, and product	Unit of measure for quantity	Crude petroleum and natural gas extraction industries, total				Crude petroleum and natural gas industries 1954		Oil and gas field contract services industries 1954			
		1954		1939 ¹		Quantity	Value at wells (\$1,000)	Quantity	Value at wells (\$1,000)		
		Quantity	Value at wells (\$1,000)	Quantity	Value at wells (\$1,000)						
SOUTH ATLANTIC—Continued											
West Virginia—Continued											
Primary Products—Continued											
Field condensate and drips shipped.....	1,000 barrels.	9	31	284	339	9	27	(7)	4		
Natural gas:											
Gross production, total.....	Million cu.ft. ³	170,667	xxx	154,990	xxx	169,617	xxx	1,050	xxx		
Gas from oil wells.....	do.....	5,807	xxx	20,988	xxx	5,780	xxx	27	xxx		
Gas from gas wells.....	do.....	164,860	xxx	134,002	xxx	163,837	xxx	1,023	xxx		
Withdrawn from underground storage.....	do.....	5,591	xxx	(NA)	xxx	5,591	xxx	...	xxx		
Purchased for use in lease operations....	do.....	582	xxx	(NA)	xxx	370	xxx	212	xxx		
Gross disposition, total.....	do.....	176,821	xxx	154,990	xxx	175,578	xxx	1,262	xxx		
Net deliveries to natural-gasoline plants ⁴	do.....	4,658	3,030	(⁵)	(⁵)	4,658	3,030	...	...
Gross deliveries to natural-gasoline plants.....	do.....	80,302	xxx	(NA)	xxx	80,302	xxx	...	xxx		
Residue returned from natural-gasoline plants.....	do.....	75,644	xxx	(NA)	xxx	75,644	xxx	...	xxx		
Used in lease operations:											
For power and heat.....	do.....	2,896	xxx	618,208	xxx	2,699	xxx	197	xxx		
For gas lift (net).....	do.....	124	xxx		xxx	105	xxx	19	xxx		
Returned to underground formations:											
For repressuring, pressure maintenance, and cycling.....	do.....	1,294	xxx	5136,782	xxx	1,294	xxx	...	xxx		
For underground storage.....	do.....	7,136	xxx		xxx	7,136	xxx	...	xxx		
Delivered to distributors and transmission companies.....	do.....	123,544	29,905	5136,782	517,199	122,498	29,650	1,046	255		
Delivered to consumers:											
Domestic.....	do.....	11,206	(D)			11,206	(D)	...	...
Commercial.....	do.....	2,975	(D)			2,975	(D)	...	...
Industrial.....	do.....	21,993	6,509			21,993	6,509	...	...
Vented to air, burned in flares, and other losses.....	do.....	1,014	xxx	(⁶)	xxx	1,014	xxx	...	xxx		
Secondary Products and Services											
Drilling oil, gas, dry, and service wells...		xxx	6,295	xxx	1,220	xxx	...	xxx	6,295		
Drilling in, spudding in, tailing in, and reworking wells.....		xxx	168	xxx		xxx	...	xxx	168		
Pumping wells but not operating leases.....		xxx	30	xxx	26	xxx	12	xxx	18		
Other oil and gas field contract services...		xxx	1,490	xxx	15168	xxx	63	xxx	1,591		
Services classified in other industries.....		xxx	202	xxx	(7)	xxx	1	xxx	201		
Products purchased and resold without further processing.....		xxx	(D)	xxx	(NA)	xxx	(D)	xxx	(D)		
Maryland, Virginia, Georgia, and Florida											
All products and services, total.....		xxx	3,647	xxx	...	xxx	1,862	xxx	1,785		
Primary Products											
Crude petroleum, total.....	1,000 barrels.	554	xxx	...	xxx	(D)	xxx	(D)	xxx		
Shipped.....	do.....	554	1,081	...	...	(D)	(D)	(D)	(D)
Natural gas:											
Gross production, total.....	Million cu.ft. ³	2,831	xxx	...	xxx	2,830	xxx	1	xxx		
Gas from oil wells.....	do.....	49	xxx	...	xxx	48	xxx	1	xxx		
Gas from gas wells.....	do.....	2,782	xxx	...	xxx	2,782	xxx	...	xxx		
Purchased for use in lease operations....	do.....	9	xxx	...	xxx	4	xxx	5	xxx		
Gross disposition, total.....	do.....	2,840	xxx	...	xxx	2,834	xxx	6	xxx		
Used in lease operations for power and heat.....	do.....	44	xxx	...	xxx	38	xxx	6	xxx		
Delivered to distributors and transmission companies.....	do.....	2,526	629	...	...	2,526	629	...	...
Delivered to consumers:											
Domestic.....	do.....	153	(D)	...	...	153	(D)	...	...
Commercial.....	do.....	34	(D)	...	...	34	(D)	...	...
Industrial.....	do.....	69	26	...	...	69	26	...	...
Vented to air, burned in flares, and other losses.....	do.....	14	xxx	...	xxx	14	xxx	...	xxx		

See footnotes at end of table.

Table 5A.—PRODUCTS AND SERVICES OF THE CRUDE PETROLEUM AND NATURAL GAS INDUSTRIES AND TOTALS FOR SUCH PRODUCTS AND SERVICES IN ALL CRUDE PETROLEUM AND NATURAL GAS EXTRACTION INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954 AND 1939—Continued

Geographic division, State, and product	Unit of measure for quantity	Crude petroleum and natural gas extraction industries, total				Crude petroleum and natural gas industries 1954		Oil and gas field contract services industries 1954			
		1954		1939 ¹		Quantity	Value at wells (\$1,000)	Quantity	Value at wells (\$1,000)		
		Quantity	Value at wells (\$1,000)	Quantity	Value at wells (\$1,000)						
SOUTH ATLANTIC—Continued											
Maryland, Virginia, Georgia, and Florida—Continued											
Secondary Products and Services											
Drilling oil, gas, dry, and service wells...		xxx	1,600	xxx	...	xxx	...	xxx	1,600		
Other oil and gas field contract services...		xxx	164	xxx	...	xxx	...	xxx	164		
Services classified in other industries...		xxx	6	xxx	...	xxx	...	xxx	6		
Products purchased and resold without further processing.....		xxx	(D)	xxx	...	xxx	(D)	xxx	(D)		
EAST SOUTH CENTRAL											
All products and services, total.....		xxx	178,379	xxx	^{12 15} 10,842	xxx	151,807	xxx	26,572		
Primary Products											
Crude petroleum, total.....	1,000 barrels.	46,259	xxx	(NA)	xxx	45,657	xxx	602	xxx		
Shipped.....	do.	46,246	119,308	4,355	4,493	45,644	117,640	602	1,668		
Used in lease operations:											
For power and heat.....	do.	1	xxx	(NA)	xxx	1	xxx	...	xxx		
For other purposes.....	do.	12	xxx	(NA)	xxx	12	xxx	...	xxx		
Field condensate and drips shipped.....	do.	783	2,331	2	4	783	2,331	...	...
Natural gas:											
Gross production, total.....	Million cu.ft. ³	274,362	xxx	55,082	xxx	273,871	xxx	491	xxx		
Gas from oil wells.....	do.	56,432	xxx	4,277	xxx	55,941	xxx	491	xxx		
Gas from gas wells.....	do.	217,930	xxx	50,805	xxx	217,930	xxx	...	xxx		
Withdrawn from underground storage.....	do.	...	xxx	(NA)	xxx	...	xxx	...	xxx		
Purchased for use in lease operations....	do.	8,934	xxx	(NA)	xxx	7,772	xxx	1,162	xxx		
Gross disposition, total.....	do.	283,296	xxx	55,082	xxx	281,643	xxx	1,653	xxx		
Net deliveries to natural-gasoline plants ⁴	do.	7,890	4,958	(⁵)	(⁵)	7,890	4,958	...	...
Gross deliveries to natural-gasoline plants.....	do.	73,265	xxx	(NA)	xxx	73,265	xxx	...	xxx		
Residue returned from natural-gasoline plants.....	do.	65,375	xxx	(NA)	xxx	65,375	xxx	...	xxx		
Used in lease operations:											
For power and heat.....	do.	11,119	xxx	65,574	{	9,753	xxx	1,366	xxx		
For gas lift (net).....	do.	3,037	xxx			xxx	3,037	xxx	...	xxx	
Returned to underground formations:											
For repressuring, pressure maintenance, and cycling.....	do.	60,930	xxx	{	{	60,930	xxx	...	xxx		
For underground storage.....	do.	...	xxx			xxx	...	xxx	...	xxx	
Delivered to distributors and transmission companies.....	do.	192,097	25,445	549,508	{	191,821	25,397	276	48		
Delivered to consumers:											
Domestic.....	do.	716	274			{	{	716	274
Commercial.....	do.	259	89					259	89
Industrial.....	do.	3,847	495					3,847	495
Vented to air, burned in flares, and other losses.....	do.	3,401	xxx	(⁶)	xxx	3,390	xxx	11	xxx		
Secondary Products and Services											
Drilling oil, gas, dry, and service wells...		xxx	18,112	xxx	16,611	{	xxx	548	xxx	17,564	
Drilling in, spudding in, tailing in, and reworking wells.....		xxx	789	xxx			xxx	3	xxx	786	
Pumping wells but not operating leases.....		xxx	23	xxx	3	xxx	23	xxx	...		
Other oil and gas field contract services...		xxx	6,223	xxx	^{15 16} 137	xxx	44	xxx	6,179		
Services classified in other industries.....		xxx	316	xxx	1	xxx	4	xxx	312		
Electric energy generated and sold.....	Million kwh.	(⁷)	1	...	...	(⁷)	1	xxx	...
Products purchased and resold without further processing.....		xxx	15	xxx	(NA)	xxx	...	xxx	15		
Other products ⁸		xxx	...	xxx	5	xxx	...	xxx	...		

See footnotes at end of table.

Table 5A.—PRODUCTS AND SERVICES OF THE CRUDE PETROLEUM AND NATURAL GAS INDUSTRIES AND TOTALS FOR SUCH PRODUCTS AND SERVICES IN ALL CRUDE PETROLEUM AND NATURAL GAS EXTRACTION INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954 AND 1939—Continued

Geographic division, State, and product	Unit of measure for quantity	Crude petroleum and natural gas extraction industries, total				Crude petroleum and natural gas industries 1954		Oil and gas field contract services industries 1954			
		1954		1939 ¹		Quantity	Value at wells (\$1,000)	Quantity	Value at wells (\$1,000)		
		Quantity	Value at wells (\$1,000)	Quantity	Value at wells (\$1,000)						
EAST SOUTH CENTRAL—Continued											
<u>Kentucky</u>											
All products and services, total.....		xxx	65,051	xxx	159,892	xxx	53,956	xxx	11,095		
Primary Products											
Crude petroleum, total.....	1,000 barrels.	12,294	xxx	(NA)	xxx	11,885	xxx	409	xxx		
Shipped.....	do.....	12,290	35,986	4,209	4,357	11,881	34,810	409	1,176		
Used in lease operations:											
For power and heat.....	do.....	1	xxx	(NA)	xxx	1	xxx	...	xxx		
For other purposes.....	do.....	3	xxx	(NA)	xxx	3	xxx	...	xxx		
Field condensate and drips shipped.....	do.....	4	14	2	4	4	14	...	...
Natural gas:											
Gross production, total.....	Million cu.ft. ³	73,512	xxx	40,628	xxx	73,242	xxx	270	xxx		
Gas from oil wells.....	do.....	2,298	xxx	4,259	xxx	2,028	xxx	270	xxx		
Gas from gas wells.....	do.....	71,214	xxx	36,369	xxx	71,214	xxx	...	xxx		
Withdrawn from underground storage.....	do.....	...	xxx	(NA)	xxx	...	xxx	...	xxx		
Purchased for use in lease operations....	do.....	492	xxx	(NA)	xxx	372	xxx	120	xxx		
Gross disposition, total.....	do.....	74,004	xxx	40,628	xxx	73,614	xxx	390	xxx		
Net deliveries to natural-gasoline plants ⁴	do.....	3,407	3,476	(⁵)	(⁵)	3,407	3,476	...	...
Gross deliveries to natural-gasoline plants.....	do.....	24,834	xxx	(NA)	xxx	24,834	xxx	...	xxx		
Residue returned from natural-gasoline plants.....	do.....	21,427	xxx	(NA)	xxx	21,427	xxx	...	xxx		
Used in lease operations:											
For power and heat.....	do.....	2,627	xxx	65,504	xxx	2,303	xxx	324	xxx		
For gas lift (net).....	do.....	206	xxx			xxx	206	xxx	...	xxx	
Returned to underground formations:											
For repressuring, pressure maintenance, and cycling.....	do.....	690	xxx	535,124	xxx	690	xxx	...	xxx		
For underground storage.....	do.....	...	xxx			xxx	...	xxx	...	xxx	
Delivered to distributors and transmission companies.....	do.....	64,146	14,820	54,967	54,967	64,080	14,799	66	21		
Delivered to consumers:											
Domestic.....	do.....	654	267			654	267	...	...
Commercial.....	do.....	226	79			226	79	...	...
Industrial.....	do.....	481	161	481	161	...	...		
Vented to air, burned in flares, and other losses.....	do.....	1,567	xxx	(⁶)	xxx	1,567	xxx	...	xxx		
Secondary Products and Services											
Drilling oil, gas, dry, and service wells...		xxx	8,248	xxx	418	xxx	(D)	xxx	(D)		
Drilling in, spudding in, tailing in, and reworking wells.....		xxx	362	xxx		xxx	3	xxx	359		
Pumping wells but not operating leases.....		xxx	(D)	xxx	3	xxx	(D)	xxx	...		
Other oil and gas field contract services...		xxx	(D)	xxx	15137	xxx	(D)	xxx	(D)		
Services classified in other industries.....		xxx	139	xxx	1	xxx	4	xxx	135		
Products purchased and resold without further processing.....		xxx	(D)	xxx	(NA)	xxx	...	xxx	(D)		
Other products ⁸		xxx	...	xxx	5	xxx	...	xxx	...		
<u>Tennessee</u>											
All products and services, total.....		xxx	120	xxx	45	xxx	57	xxx	63		
Primary Products											
Crude petroleum shipped.....	1,000 barrels.	13	46	44	44	13	46	...	...
Natural gas:											
Gross production, total.....	Million cu.ft. ³	94	xxx	32	xxx	94	xxx	...	xxx		
Gas from oil wells.....	do.....	...	xxx	13	xxx	...	xxx	...	xxx		
Gas from gas wells.....	do.....	94	xxx	19	xxx	94	xxx	...	xxx		

See footnotes at end of table.

Table 5A.—PRODUCTS AND SERVICES OF THE CRUDE PETROLEUM AND NATURAL GAS INDUSTRIES AND TOTALS FOR SUCH PRODUCTS AND SERVICES IN ALL CRUDE PETROLEUM AND NATURAL GAS EXTRACTION INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954 AND 1939—Continued

Geographic division, State, and product	Unit of measure for quantity	Crude petroleum and natural gas extraction industries, total				Crude petroleum and natural gas industries 1954		Oil and gas field contract services industries 1954	
		1954		1939 ¹		Quantity	Value at wells (\$1,000)	Quantity	Value at wells (\$1,000)
		Quantity	Value at wells (\$1,000)	Quantity	Value at wells (\$1,000)				
EAST SOUTH CENTRAL—Continued									
Tennessee—Continued									
Primary Products—Continued									
Natural gas—Continued									
Gross disposition, total.....	Million cu.ft. ³	94	xxx	32	xxx	94	xxx	...	xxx
Net deliveries to natural-gasoline plants ⁴.....	...do.....	27	3	(⁵)	(⁵)	27	3	...	...
Gross deliveries to natural-gasoline plants.....	...do.....	27	xxx	(NA)	xxx	27	xxx	...	xxx
Residue returned from natural-gasoline plants.....	...do.....	...	xxx	(NA)	xxx	...	xxx	...	xxx
Used in lease operations.....	...do.....	...	xxx	624	xxx	...	xxx	...	xxx
Returned to underground formations...	...do.....	...	xxx			...	xxx	...	xxx
Delivered to distributors and transmission companies.....	...do.....	5	1	58	51	5	1	...	...
Delivered to domestic consumers.....	...do.....	62	7			62	7	...	...
Vented to air, burned in flares, and other losses.....	...do.....	...	xxx	(⁶)	xxx	...	xxx	...	xxx
Secondary Products and Services									
Drilling oil, gas, dry, and service wells..	.....	xxx	56	xxx	...	xxx	...	xxx	56
Drilling in, spudding in, tailing in, and reworking wells.....	.....	xxx	3	xxx	...	xxx	...	xxx	3
Other oil and gas field contract services..	.....	xxx	4	xxx	(⁷)	xxx	...	xxx	4
Alabama									
All products and services, total.....	.....	xxx	4,850	xxx	...	xxx	3,136	xxx	1,714
Primary Products									
Crude petroleum, total.....	1,000 barrels.	1,589	xxx	...	xxx	1,589	xxx	...	xxx
Shipped.....	do.....	1,584	3,136	...	...	1,584	3,136	...	...
Used in lease operations for purposes other than power and heat.....	...do.....	5	xxx	(NA)	xxx	5	xxx	...	xxx
Natural gas:									
Gross production (gas from oil wells)...	Million cu.ft. ³	96	xxx	...	xxx	96	xxx	...	xxx
Purchased for use in lease operations...	...do.....	10	xxx	(NA)	xxx	10	xxx	...	xxx
Gross disposition, total.....	...do.....	106	xxx	...	xxx	106	xxx	...	xxx
Used in lease operations for power and heat.....	...do.....	63	xxx	...	xxx	63	xxx	...	xxx
Vented to air, burned in flares, and other losses.....	...do.....	43	xxx	...	xxx	43	xxx	...	xxx
Secondary Products and Services									
Drilling oil, gas, dry, and service wells ..	.....	xxx	167	xxx	...	xxx	...	xxx	167
Other oil and gas field contract services...	.....	xxx	(D)	xxx	...	xxx	...	xxx	(D)
Services classified in other industries.....	.....	xxx	2	xxx	...	xxx	...	xxx	2
Products purchased and resold without further processing.....	.....	xxx	(D)	xxx	...	xxx	...	xxx	(D)
Mississippi									
All products and services, total.....	.....	xxx	108,358	xxx	12905	xxx	94,658	xxx	13,700
Primary Products									
Crude petroleum, total.....	1,000 barrels.	32,363	xxx	(NA)	xxx	32,170	xxx	193	xxx
Shipped.....	do.....	32,359	80,140	102	92	32,166	79,648	193	492
Used in lease operations for purposes other than power or heat.....	...do.....	4	xxx	(NA)	xxx	4	xxx	...	xxx
Field condensate and drips shipped.....	...do.....	779	2,317	...	...	779	2,317	...	...
Natural gas:									
Gross production, total.....	Million cu.ft. ³	200,660	xxx	14,422	xxx	200,439	xxx	221	xxx
Gas from oil wells.....	do.....	54,038	xxx	5	xxx	53,817	xxx	221	xxx
Gas from gas wells.....	do.....	146,622	xxx	14,417	xxx	146,622	xxx	...	xxx
Withdrawn from underground storage.....	do.....	...	xxx	(NA)	xxx	...	xxx	...	xxx
Purchased for use in lease operations....	do.....	8,432	xxx	(NA)	xxx	7,390	xxx	1,042	xxx

See footnotes at end of table.

Table 5A.—PRODUCTS AND SERVICES OF THE CRUDE PETROLEUM AND NATURAL GAS INDUSTRIES AND TOTALS FOR SUCH PRODUCTS AND SERVICES IN ALL CRUDE PETROLEUM AND NATURAL GAS EXTRACTION INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954 AND 1939—Continued

Geographic division, State, and product	Unit of measure for quantity	Crude petroleum and natural gas extraction industries, total				Crude petroleum and natural gas industries 1954		Oil and gas field contract services industries 1954			
		1954		1939 ¹		Quantity	Value at wells (\$1,000)	Quantity	Value at wells (\$1,000)		
		Quantity	Value at wells (\$1,000)	Quantity	Value at wells (\$1,000)						
EAST SOUTH CENTRAL—Continued											
Mississippi—Continued											
Primary Products—Continued											
Natural gas—Continued											
Gross disposition, total.....	Million cu.ft. ³	209,092	xxx	14,422	xxx	207,829	xxx	1,263	xxx		
Net deliveries to natural-gasoline plants ⁴.....	...do.....	4,456	1,479	(⁵)	(⁵)	4,456	1,479	...	...
Gross deliveries to natural-gasoline plants.....	...do.....	48,404	xxx	(NA)	xxx	48,404	xxx	...	xxx		
Residue returned from natural-gasoline plants.....	...do.....	43,948	xxx	(NA)	xxx	43,948	xxx	...	xxx		
Used in lease operations:											
For power and heat.....	...do.....	8,429	xxx	646	xxx	7,387	xxx	1,042	xxx		
For gas lift (net).....	...do.....	2,831	xxx		xxx	2,831	xxx	...	xxx		
Returned to underground formations for repressuring, pressure maintenance, and cycling.....	...do.....	60,240	xxx		xxx	60,240	xxx	...	xxx		
Delivered to distributors and transmission companies.....	...do.....	127,946	10,624	514,376	5620	127,736	10,597	210	27		
Delivered to consumers:											
Commercial.....	...do.....	33	10			33	10	...	...
Industrial.....	...do.....	3,366	334			3,366	334	...	...
Vented to air, burned in flares, and other losses.....	...do.....	1,791	xxx	(⁶)	xxx	1,780	xxx	11	xxx		
Secondary Products and Services											
Drilling oil, gas, dry, and service wells...	.....	xxx	9,641	xxx	12 16193	xxx	(D)	xxx	(D)	
Drilling in, spudding in, tailing in, and reworking wells.....	.....	xxx	424	xxx		xxx	...	xxx	424	
Pumping wells but not operating leases.....	.....	xxx	3,213	xxx	(16)	xxx	(D)	xxx	...	
Other oil and gas field contract services...	.....	xxx		xxx		xxx	(D)	xxx	(D)	
Services classified in other industries.....	.....	xxx	175	xxx	...	xxx	...	xxx	175	
Electric energy generated and sold.....	Million kwh...	(⁷)	1	...	...	(⁷)	1	xxx	...
WEST SOUTH CENTRAL											
All products and services, total.....	.....	xxx	5,630,995	xxx	9896,623	xxx	4,435,482	xxx	1,195,513	
Primary Products											
Crude petroleum, total.....	1,000 barrels.	1,341,645	xxx	(NA)	xxx	1,330,420	xxx	11,225	xxx		
Shipped.....	...do.....	1,341,067	3,810,027	733,699	737,920	1,329,842	3,778,931	11,225	31,096		
Used in lease operations:											
For power and heat.....	...do.....	234	xxx	(NA)	xxx	234	xxx	...	xxx		
For other purposes.....	...do.....	344	xxx	(NA)	xxx	344	xxx	...	xxx		
Field condensate and drips shipped.....	...do.....	23,912	72,166	299	370	23,906	72,149	6	17		
Natural gas:											
Gross production, total.....	Million cu.ft. ³	7,638,090	xxx	1,875,785	xxx	7,613,124	xxx	24,966	xxx		
Gas from oil wells.....	...do.....	2,447,401	xxx	948,065	xxx	2,434,134	xxx	13,267	xxx		
Gas from gas wells.....	...do.....	5,190,689	xxx	927,720	xxx	5,178,990	xxx	11,699	xxx		
Withdrawn from underground storage.....	...do.....	3,297	xxx	(NA)	xxx	3,230	xxx	67	xxx		
Purchased for use in lease operations...	...do.....	204,295	xxx	(NA)	xxx	158,528	xxx	45,767	xxx		
Gross disposition, total.....	...do.....	7,845,682	xxx	1,875,785	...	7,774,882	xxx	70,800	xxx		
Net deliveries to natural-gasoline plants ⁴.....	...do.....	2,625,606	268,498	(⁵)	(⁵)	2,624,633	268,404	973	94	
Gross deliveries to natural-gasoline plants.....	...do.....	4,154,230	xxx	(NA)	xxx	4,153,257	xxx	973	xxx		
Residue returned from natural-gasoline plants.....	...do.....	1,528,624	xxx	(NA)	xxx	1,528,624	xxx	...	xxx		
Used in lease operations:											
For power and heat.....	...do.....	320,989	xxx	6441,843	xxx	275,390	xxx	45,599	xxx		
For gas lift (net).....	...do.....	198,119	xxx		xxx	197,637	xxx	482	xxx		
Returned to underground formations:											
For repressuring, pressure maintenance, and cycling.....	Million cu.ft. ³	994,624	xxx	6441,843	xxx	994,624	xxx	...	xxx		
For underground storage.....	...do.....	7,053	xxx		xxx	7,053	xxx	...	xxx		

See footnotes at end of table.

Table 5A.—PRODUCTS AND SERVICES OF THE CRUDE PETROLEUM AND NATURAL GAS INDUSTRIES AND TOTALS FOR SUCH PRODUCTS AND SERVICES IN ALL CRUDE PETROLEUM AND NATURAL GAS EXTRACTION INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954 AND 1939—Continued

Geographic division, State, and product	Unit of measure for quantity	Crude petroleum and natural gas extraction industries, total				Crude petroleum and natural gas industries 1954		Oil and gas field contract services industries 1954	
		1954		1939 ¹		Quantity	Value at wells (\$1,000)	Quantity	Value at wells (\$1,000)
		Quantity	Value at wells (\$1,000)	Quantity	Value at wells (\$1,000)				
WEST SOUTH CENTRAL—Continued									
Primary Products—Continued									
Natural gas—Continued									
Gross disposition—Continued									
Delivered to distributors and transmission companies.....	Million cu.ft. ³	3,173,791	273,056			3,151,482	270,838	22,309	2,218
Delivered to consumers:				⁵ 1,433,942	⁵ 37,622				
Domestic.....	....do.....	3,749	1,150			5,582	1,511	853	49
Commercial.....	....do.....	2,686	410						
Industrial.....	....do.....	253,407	24,367			253,407	24,367	...	...
Vented to air, burned in flares, and other losses.....	....do.....	265,658	xxx	(⁶)	xxx	265,074	xxx	584	xxx
Secondary Products and Services									
Drilling oil, gas, dry, and service wells...	.....	xxx	589,839	xxx		xxx	12,783	xxx	577,056
Drilling in, spudding in, tailing in, and reworking wells.....	.....	xxx	36,353	xxx	77,591	xxx	754	xxx	35,599
Pumping wells but not operating leases.....	.....	xxx	1,413	xxx	¹⁷ 1,588	xxx	729	xxx	684
Other oil and gas field contract services.....	.....	xxx	496,093	xxx	¹⁷ 41,182	xxx	4,436	xxx	491,657
Services classified in other industries.....	.....	xxx	6,248	xxx	180	xxx	469	xxx	5,779
Electric energy generated and sold.....	Million kwh...	11	101	(⁷)	7	11	101	...	...
Products purchased and resold without further processing.....	.....	xxx	51,264	xxx	(NA)	xxx	...	xxx	51,264
Other products ⁸.....	.....	xxx	10	xxx	163	xxx	10	xxx	...
<u>Arkansas</u>									
All products and services, total.....	.....	xxx	80,319	xxx	⁹ 22,701	xxx	73,741	xxx	6,578
Primary Products									
Crude petroleum, total.....	1,000 barrels.	26,872	xxx	(NA)	xxx	26,713	xxx	159	xxx
Shipped.....	....do.....	26,860	71,695	20,915	16,452	26,701	71,281	159	414
Used in lease operations:									
For power and heat.....	....do.....	10	xxx	(NA)	xxx	10	xxx	...	xxx
For other purposes.....	....do.....	2	xxx	(NA)	xxx	2	xxx	...	xxx
Field condensate and drips shipped.....	....do.....	26	59	(⁷)	(⁷)	26	59	...	...
Natural gas:									
Gross production, total.....	Million cu.ft. ³	49,541	xxx	19,464	xxx	49,365	xxx	176	xxx
Gas from oil wells.....	....do.....	35,991	xxx	15,161	xxx	35,895	xxx	96	xxx
Gas from gas wells.....	....do.....	13,550	xxx	4,303	xxx	13,470	xxx	80	xxx
Withdrawn from underground storage.....	....do.....	410	xxx	(NA)	xxx	410	xxx	...	xxx
Purchased for use in lease operations.....	....do.....	10,243	xxx	(NA)	xxx	10,197	xxx	46	xxx
Gross disposition, total.....	....do.....	60,194	xxx	19,464	xxx	59,972	xxx	222	xxx
Net deliveries to natural-gasoline plants ⁴.....	....do.....	16,300	1,136	(⁵)	(⁵)	16,300	1,136	...	...
Gross deliveries to natural-gasoline plants.....	....do.....	26,570	xxx	(NA)	xxx	26,570	xxx	...	xxx
Residue returned from natural-gasoline plants.....	....do.....	10,270	xxx	(NA)	xxx	10,270	xxx	...	xxx
Used in lease operations:									
For power and heat.....	....do.....	4,321	xxx		xxx	4,275	xxx	46	xxx
For gas lift (net).....	....do.....	402	xxx		xxx	402	xxx	...	xxx
Returned to underground formations:				⁶ 8,141					
For repressuring, pressure maintenance, and cycling.....	....do.....	26,102	xxx		xxx	26,102	xxx	...	xxx
For underground storage.....	....do.....	473	xxx		xxx	473	xxx	...	xxx
Delivered to distributors and transmission companies.....	....do.....	11,909	1,080			11,733	1,062	176	18
Delivered to consumers:				⁵ 11,323	⁵ 548				
Domestic.....	....do.....	1	...			1	...	...	...
Industrial.....	....do.....	4	1			4	1	...	...
Vented to air, burned in flares, and other losses.....	....do.....	682	xxx	(⁶)	xxx	682	xxx	...	xxx

See footnotes at end of table.

Table 5A.—PRODUCTS AND SERVICES OF THE CRUDE PETROLEUM AND NATURAL GAS INDUSTRIES AND TOTALS FOR SUCH PRODUCTS AND SERVICES IN ALL CRUDE PETROLEUM AND NATURAL GAS EXTRACTION INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954 AND 1939—Continued

Geographic division, State, and product	Unit of measure for quantity	Crude petroleum and natural gas extraction industries, total				Crude petroleum and natural gas industries 1954		Oil and gas field contract services industries 1954		
		1954		1939 ¹		Quantity	Value at wells (\$1,000)	Quantity	Value at wells (\$1,000)	
		Quantity	Value at wells (\$1,000)	Quantity	Value at wells (\$1,000)					
WEST SOUTH CENTRAL—Continued										
Arkansas—Continued										
Secondary Products and Services										
Drilling oil, gas, dry, and service wells...	.....	xxx	3,172	xxx	5,617	xxx	137	xxx	3,035
Drilling in, spudding in, tailing in, and reworking wells.....	.....	xxx	19	xxx		xxx	...	xxx	19
Pumping wells but not operating leases.....	xxx	81	xxx		4	xxx	25	xxx	56
Other oil and gas field contract services...	xxx	3,003	xxx		973	xxx	40	xxx	2,963
Services classified in other industries.....	xxx	(D)	xxx		...	xxx	...	xxx	(D)
Products purchased and resold without further processing.....	.....	xxx	(D)	xxx	(NA)	xxx	...	xxx	(D)
Other products ⁸.....	.....	xxx	...	xxx	7	xxx	...	xxx	...
Louisiana										
All products and services, total.....	.....	xxx	1,058,281	xxx	119,287	xxx	847,595	xxx	210,686
Primary Products										
Crude petroleum, total.....	1,000 barrels.	231,276	xxx	(NA)	xxx	230,505	xxx	771	xxx	
Shipped.....	do.	231,238	676,822	92,057	95,470	230,467	674,654	771	2,168	
Used in lease operations:										
For power and heat.....	do.	17	xxx	(NA)	xxx	17	xxx	...	xxx	
For other purposes.....	do.	21	xxx	(NA)	xxx	21	xxx	...	xxx	
Field condensate and drips shipped.....	do.	10,733	32,524	99	128	10,732	32,521	1	3	
Natural gas:										
Gross production, total.....	Million cu.ft. ³	1,661,805	xxx	378,366	xxx	1,658,951	xxx	2,854	xxx	
Gas from oil wells.....	do.	386,266	xxx	163,473	xxx	385,090	xxx	1,176	xxx	
Gas from gas wells.....	do.	1,275,539	xxx	214,893	xxx	1,273,861	xxx	1,678	xxx	
Withdrawn from underground storage.....	do.	95	xxx	(NA)	xxx	29	xxx	66	xxx	
Purchased for use in lease operations...	do.	30,281	xxx	(NA)	xxx	15,038	xxx	15,243	xxx	
Gross disposition, total.....	do.	1,692,181	xxx	378,366	xxx	1,674,018	xxx	18,163	xxx	
Net deliveries to natural-gasoline plants ⁴	do.	221,757	42,065	(⁵)	(⁵)	221,757	42,065	...	...
Gross deliveries to natural-gasoline plants.....	do.	536,268	xxx	(NA)	xxx	536,268	xxx	...	xxx	
Residue returned from natural-gasoline plants.....	do.	314,511	xxx	(NA)	xxx	314,511	xxx	...	xxx	
Used in lease operations:										
For power and heat.....	do.	88,695	xxx	673,155	xxx	73,420	xxx	15,275	xxx	
For gas lift (net).....	do.	28,157	xxx			xxx	28,157	xxx	...	xxx
Returned to underground formations:										
For repressuring, pressure maintenance, and cycling.....	do.	213,320	xxx			xxx	213,320	xxx	...	xxx
For underground storage.....	do.	67	xxx				xxx	67	xxx	...	xxx
Delivered to distributors and transmission companies.....	do.	1,012,217	89,014	5305,211	510,663	1,010,173	88,827	2,044	187	
Delivered to consumers:										
Domestic.....	do.	1,633	145			(D)	104	...	...
Commercial.....	do.							(D)	41	
Industrial.....	do.							77,225	7,140	...
Vented to air, burned in flares, and other losses.....	do.	49,110	xxx	(⁶)	xxx	(D)	xxx	(D)	xxx	
Secondary Products and Services										
Drilling oil, gas, dry, and service wells...	.....	xxx	138,189	xxx	9,023	xxx	58	xxx	138,131
Drilling in, spudding in, tailing in, and reworking wells.....	.....	xxx	7,898	xxx		xxx	...	xxx	7,898
Pumping wells but not operating leases.....	xxx	161	xxx		45	xxx	103	xxx	58
Other oil and gas field contract services...	xxx	61,144	xxx		3,930	xxx	2,123	xxx	59,021
Services classified in other industries.....	xxx	1,394	xxx		1	xxx	...	xxx	1,394
Electric energy generated and sold.....	Million kwh.	...	...	(⁷)	1	...	...	...	...
Products purchased and resold without further processing.....	.....	xxx	1,785	xxx	(NA)	xxx	...	xxx	1,785
Other products ⁸.....	.....	xxx	...	xxx	26	xxx	...	xxx	...

See footnotes at end of table.

Table 5A.—PRODUCTS AND SERVICES OF THE CRUDE PETROLEUM AND NATURAL GAS INDUSTRIES AND TOTALS FOR SUCH PRODUCTS AND SERVICES IN ALL CRUDE PETROLEUM AND NATURAL GAS EXTRACTION INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954 AND 1939—Continued

Geographic division, State, and product	Unit of measure for quantity	Crude petroleum and natural gas extraction industries, total				Crude petroleum and natural gas industries 1954		Oil and gas field contract services industries 1954			
		1954		1939 ¹		Quantity	Value at wells (\$1,000)	Quantity	Value at wells (\$1,000)		
		Quantity	Value at wells (\$1,000)	Quantity	Value at wells (\$1,000)						
WEST SOUTH CENTRAL—Continued											
Oklahoma											
All products and services, total.....		xxx	672,912	xxx	176,401	xxx	523,338	xxx	149,574		
Primary Products											
Crude petroleum, total.....	1,000 barrels.	171,305	xxx	(NA)	xxx	169,269	xxx	2,036	xxx		
Shipped.....	....do.....	171,068	471,423	153,144	158,528	169,032	465,973	2,036	5,450	
Used in lease operations:											
For power and heat.....	....do.....	153	xxx	(NA)	xxx	153	xxx	...	xxx	
For other purposes.....	....do.....	84	xxx	(NA)	xxx	84	xxx	...	xxx	
Field condensate and drips shipped.....	....do.....	208	599	17	21	208	599	...	...
Natural gas:											
Gross production, total.....	Million cu.ft. ³	787,468	xxx	294,124	xxx	782,388	xxx	5,080	xxx		
Gas from oil wells.....	....do.....	423,295	xxx	224,413	xxx	420,417	xxx	2,878	xxx	
Gas from gas wells.....	....do.....	364,173	xxx	69,711	xxx	361,971	xxx	2,202	xxx	
Withdrawn from underground storage.....	....do.....	97	xxx	(NA)	xxx	96	xxx	1	xxx	
Purchased for use in lease operations...	....do.....	21,984	xxx	(NA)	xxx	13,905	xxx	8,079	xxx	
Gross disposition, total.....	....do.....	809,549	xxx	294,124	xxx	796,389	xxx	13,160	xxx	
Net deliveries to natural-gasoline plants ⁴.....	....do.....	284,311	22,622	(⁵)	(⁵)	284,075	22,611	236	11	
Gross deliveries to natural-gasoline plants.....	....do.....	430,398	xxx	(NA)	xxx	430,162	xxx	236	xxx	
Residue returned from natural-gasoline plants.....	....do.....	146,087	xxx	(NA)	xxx	146,087	xxx	...	xxx	
Used in lease operations:											
For power and heat.....	....do.....	55,893	xxx	679,150	{	47,881	xxx	8,012	xxx	
For gas lift (net).....do.....	8,528	xxx			xxx	8,386	xxx	142	xxx	
Returned to underground formations:											
For repressuring, pressure maintenance, and cycling.....	....do.....	91,477	xxx	5214,974	{	91,477	xxx	...	xxx	
For underground storage.....do.....	78	xxx			xxx	78	xxx	...	xxx	
Delivered to distributors and transmission companies.....	....do.....	278,263	26,947	55,177	{	273,553	26,460	4,710	487	
Delivered to consumers:											
Domestic.....do.....	2,162	967			2,162	967	1,082	305
Commercial.....	....do.....	1,082	305							
Industrial.....do.....	17,651	1,872									17,651	1,872	...	...
Vented to air, burned in flares, and other losses.....	....do.....	70,104	xxx	(⁶)	xxx	70,044	xxx	60	xxx	
Secondary Products and Services											
Drilling oil, gas, dry, and service wells..		xxx	105,576	xxx	8,809	{	xxx	3,562	xxx	102,014	
Drilling in, spudding in, tailing in, and reworking wells.....		xxx	8,156	xxx			xxx	42	xxx	8,114	
Pumping wells but not operating leases.....		xxx	222	xxx			635	136	xxx	86	
Other oil and gas field contract services..		xxx	33,156	xxx	3,165	xxx	744	xxx	32,412		
Services classified in other industries....		xxx	(D)	xxx	32	xxx	3	xxx	(D)		
Electric energy generated and sold.....	Million kwh...	9	64	(⁷)	2	9	64	...	...
Products purchased and resold without further processing.....		xxx	(D)	xxx	(NA)	xxx	...	xxx	(D)		
Other products ⁸		xxx	...	xxx	32	xxx	...	xxx	...		
Texas											
All products and services, total.....		xxx	3,819,483	xxx	578,234	xxx	2,990,808	xxx	828,675		
Primary Products											
Crude petroleum, total.....	1,000 barrels.	912,192	xxx	(NA)	xxx	903,933	xxx	8,259	xxx		
Shipped.....	....do.....	911,901	2,590,087	467,583	467,470	903,642	2,567,023	8,259	23,064	
Used in lease operations:											
For power and heat.....	....do.....	54	xxx	(NA)	xxx	54	xxx	...	xxx	
For other purposes.....	....do.....	237	xxx	(NA)	xxx	237	xxx	...	xxx	

See footnotes at end of table.

Table 5A.—PRODUCTS AND SERVICES OF THE CRUDE PETROLEUM AND NATURAL GAS INDUSTRIES AND TOTALS FOR SUCH PRODUCTS AND SERVICES IN ALL CRUDE PETROLEUM AND NATURAL GAS EXTRACTION INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954 AND 1939—Continued

Geographic division, State, and product	Unit of measure for quantity	Crude petroleum and natural gas extraction industries, total				Crude petroleum and natural gas industries 1954		Oil and gas field contract services industries 1954			
		1954		1939 ¹		Quantity	Value at wells (\$1,000)	Quantity	Value at wells (\$1,000)		
		Quantity	Value at wells (\$1,000)	Quantity	Value at wells (\$1,000)						
WEST SOUTH CENTRAL—Continued											
Texas—Continued											
Primary Products—Continued											
Field condensate and drips shipped.....	1,000 barrels.	12,945	38,984	183	221	12,940	38,970	5	14		
Natural gas:											
Gross production, total.....	Million cu.ft. ³	5,139,276	xxx	1,183,831	xxx	5,122,420	xxx	16,856	xxx		
Gas from oil wells.....	do.....	1,601,849	xxx	545,018	xxx	1,592,732	xxx	9,117	xxx		
Gas from gas wells.....	do.....	3,537,427	xxx	638,813	xxx	3,529,688	xxx	7,739	xxx		
Withdrawn from underground storage.....	do.....	2,695	xxx	(NA)	xxx	2,695	xxx	...	xxx		
Purchased for use in lease operations...	do.....	141,787	xxx	(NA)	xxx	119,388	xxx	22,399	xxx		
Gross disposition, total.....	do.....	5,283,758	xxx	1,183,831	xxx	5,244,503	xxx	39,255	xxx		
Net deliveries to natural-gasoline plants ⁴	do.....	2,103,238	202,675	(⁵)	(⁵)	2,102,501	202,592	737	83		
Gross deliveries to natural-gasoline plants.....	do.....	3,160,994	xxx	(NA)	xxx	3,160,257	xxx	737	xxx		
Residue returned from natural-gasoline plants.....	do.....	1,057,756	xxx	(NA)	xxx	1,057,756	xxx	...	xxx		
Used in lease operations:											
For power and heat.....	do.....	172,080	xxx	6281,397	xxx	149,814	xxx	22,266	xxx		
For gas lift (net).....	do.....	161,032	xxx		xxx	160,692	xxx	340	xxx		
Returned to underground formations:											
For repressuring, pressure maintenance, and cycling.....	do.....	663,725	xxx	}	xxx	663,725	xxx	...	xxx		
For underground storage.....	do.....	6,435	xxx		xxx	6,435	xxx	...	xxx		
Delivered to distributors and transmission companies.....	do.....	1,871,402	156,015	902,434	⁵ 21,234	1,856,023	154,489	15,379	1,526		
Delivered to consumers:											
Domestic.....	do.....	1,557	143			(D)	135	(D)	8		
Commercial.....	do.....										
Industrial.....	do.....	158,527	15,354	}	(D)	158,527	15,354	...	...
Vented to air, burned in flares, and other losses.....	do.....	145,762	xxx							(⁶)	xxx
Secondary Products and Services											
Drilling oil, gas, dry, and service wells..		xxx	342,902	xxx	54,142	xxx	9,026	xxx	333,876		
Drilling in, spudding in, tailing in, and reworking wells.....		xxx	20,280	xxx		xxx	712	xxx	19,568		
Pumping wells but not operating leases....		xxx	949	xxx		17904	xxx	465	xxx	484	
Other oil and gas field contract services...		xxx	398,790	xxx	1734,014	xxx	1,529	xxx	397,261		
Services classified in other industries....		xxx	4,088	xxx	147	xxx	466	xxx	3,622		
Electric energy generated and sold.....	Million kwh..	2	37	(⁷)	4	2	37	...	...
Products purchased and resold without further processing.....		xxx	49,169	xxx	(NA)	xxx	...	xxx	49,169		
Other products ⁸		xxx	10	xxx	98	xxx	10	xxx	...		
MOUNTAIN											
All products and services, total.....		xxx	752,710	xxx	9 12 15 68,687	xxx	626,908	xxx	125,802		
Primary Products											
Crude petroleum, total.....	1,000 barrels.	225,511	xxx	(NA)	xxx	223,836	xxx	1,675	xxx		
Shipped.....	do.....	225,283	577,979	67,065	57,222	223,608	573,728	1,675	4,251		
Used in lease operations:											
For power and heat.....	do.....	50	xxx	(NA)	xxx	50	xxx	...	xxx		
For other purposes.....	do.....	178	xxx	(NA)	xxx	178	xxx	...	xxx		
Field condensate and drips shipped.....	do.....	721	2,050	23	20	721	2,050	...	...
Natural gas:											
Gross production, total.....	Million cu.ft. ³	678,994	xxx	181,284	xxx	676,406	xxx	2,588	xxx		
Gas from oil wells.....	do.....	304,662	xxx	103,839	xxx	302,784	xxx	1,878	xxx		
Gas from gas wells.....	do.....	374,332	xxx	77,445	xxx	373,622	xxx	710	xxx		
Withdrawn from underground storage.....	do.....	297	xxx	(NA)	xxx	297	xxx	...	xxx		
Purchased for use in lease operations...	do.....	8,028	xxx	(NA)	xxx	6,099	xxx	1,929	xxx		

See footnotes at end of table.

Table 5A.—PRODUCTS AND SERVICES OF THE CRUDE PETROLEUM AND NATURAL GAS INDUSTRIES AND TOTALS FOR SUCH PRODUCTS AND SERVICES IN ALL CRUDE PETROLEUM AND NATURAL GAS EXTRACTION INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954 AND 1939—Continued

Geographic division, State, and product	Unit of measure for quantity	Crude petroleum and natural gas extraction industries, total				Crude petroleum and natural gas industries 1954		Oil and gas field contract services industries 1954			
		1954		1939 ¹		Quantity	Value at wells (\$1,000)	Quantity	Value at wells (\$1,000)		
		Quantity	Value at wells (\$1,000)	Quantity	Value at wells (\$1,000)						
MOUNTAIN—Continued											
Primary Products—Continued											
Natural gas—Continued											
Gross disposition, total.....	Million cu.ft. ³	687,319	xxx	181,284	xxx	682,802	xxx	4,517	xxx		
Net deliveries to natural-gasoline plants ⁴.....	....do.....	233,715	16,367	(⁵)	(⁵)	233,715	16,367	...	...
Gross deliveries to natural-gasoline plants.....	....do.....	303,325	xxx	(NA)	xxx	303,325	xxx	...	xxx	
Residue returned from natural-gasoline plants.....	....do.....	69,610	xxx	(NA)	xxx	69,610	xxx	...	xxx	
Used in lease operations:											
For power and heat.....	....do.....	36,508	xxx	627,407	xxx	34,570	xxx	1,938	xxx	
For gas lift (net).....	....do.....	12,076	xxx		xxx	12,076	xxx	...	xxx	
Returned to underground formations:											
For repressuring, pressure maintenance, and cycling.....	....do.....	25,621	xxx		xxx	25,621	xxx	...	xxx	
For underground storage.....	....do.....	1,622	xxx		xxx	1,622	xxx	...	xxx	
Delivered to distributors and transmission companies.....	....do.....	248,771	24,116	5153,877	54,018	246,222	23,740	2,549	376	
Delivered to consumers:											
Domestic.....	....do.....	624	39			624	39	...	...
Commercial.....	....do.....	...	...			...	...	...	...
Industrial.....	....do.....	98,867	8,579			98,867	8,579	...	...
Vented to air, burned in flares, and other losses.....	....do.....	29,515	xxx	(⁶)	xxx	29,485	xxx	30	xxx	
Secondary Products and Services											
Drilling oil, gas, dry, and service wells..		xxx	91,218	6,744	{	xxx	1,975	xxx	89,243		
Drilling in, spudding in, tailing in, and reworking wells.....		xxx	2,090			xxx	xxx	36	xxx	2,054	
Pumping wells but not operating leases.....		xxx	155			xxx	xxx	138	xxx	17	
Other oil and gas field contract services..		xxx	28,599			xxx	xxx	211	xxx	28,388	
Services classified in other industries....		xxx	1,065	xxx	2	xxx	12	xxx	1,053		
Electric energy generated and sold.....	Million kwh...	5	33	(⁷)	4	5	33	...	...
Products purchased and resold without further processing.....		xxx	420	xxx	(NA)	xxx	...	xxx	420		
Other products ⁸		xxx	...	xxx	42	xxx	...	xxx	...		
Montana ¹⁸											
All products and services, total.....		xxx	41,595	xxx	97,203	xxx	32,323	xxx	9,272		
Primary Products											
Crude petroleum, total.....	1,000 barrels.	13,810	xxx	(NA)	xxx	13,784	xxx	26	xxx		
Shipped.....	....do.....	13,771	30,446	5,844	5,679	13,745	30,382	26	64	
Used in lease operations:											
For power and heat.....	....do.....	...	xxx	(NA)	xxx	...	xxx	...	xxx	
For other purposes.....	....do.....	39	xxx	(NA)	xxx	39	xxx	...	xxx	
Field condensate and drips shipped.....	....do.....	(D)	(D)	...	...	(D)	(D)	...	...
Natural gas:											
Gross production, total.....	Million cu.ft. ³	30,261	xxx	26,686	xxx	(D)	xxx	(D)	xxx		
Gas from oil wells.....	....do.....	2,549	xxx	3,175	xxx	(D)	xxx	(D)	xxx	
Gas from gas wells.....	....do.....	27,712	xxx	23,511	xxx	27,712	xxx	...	xxx	
Withdrawn from underground storage.....	....do.....	...	xxx	(NA)	xxx	...	xxx	...	xxx	
Purchased for use in lease operations...	....do.....	1,157	xxx	(NA)	xxx	391	xxx	766	xxx	
Gross disposition, total.....	....do.....	31,418	xxx	26,686	xxx	(D)	xxx	(D)	xxx	
Net deliveries to natural-gasoline plants ⁴.....	....do.....	1,528	216	(⁵)	(⁵)	1,528	216	...	...
Gross deliveries to natural-gasoline plants.....	....do.....	11,771	xxx	(NA)	xxx	11,771	xxx	...	xxx	
Residue returned from natural-gasoline plants.....	....do.....	10,243	xxx	(NA)	xxx	10,243	xxx	...	xxx	

See footnotes at end of table.

Table 5A.—PRODUCTS AND SERVICES OF THE CRUDE PETROLEUM AND NATURAL GAS INDUSTRIES AND TOTALS FOR SUCH PRODUCTS AND SERVICES IN ALL CRUDE PETROLEUM AND NATURAL GAS EXTRACTION INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954 AND 1939—Continued

Geographic division, State, and product	Unit of measure for quantity	Crude petroleum and natural gas extraction industries, total				Crude petroleum and natural gas industries 1954		Oil and gas field contract services industries 1954	
		1954		1939 ¹		Quantity	Value at wells (\$1,000)	Quantity	Value at wells (\$1,000)
		Quantity	Value at wells (\$1,000)	Quantity	Value at wells (\$1,000)				
MOUNTAIN—Continued									
Montana ¹⁸ —Continued									
Primary Products—Continued									
Natural gas—Continued									
Gross disposition—Continued									
Used in lease operations:									
For power and heat.....	Million cu.ft. ³	2,317	xxx	62,364	xxx	1,550	xxx	767	xxx
For gas lift (net).....	....do.....	46	xxx		xxx	46	xxx	...	xxx
Returned to underground formations:									
For repressuring, pressure maintenance, and cycling.....	....do.....	262	xxx	524,322	xxx	262	xxx	...	xxx
For underground storage.....	....do.....	1,213	xxx		xxx	1,213	xxx	...	xxx
Delivered to distributors and transmission companies.....	....do.....	15,435	849	524,322	51,131	(D)	(D)	(D)	(D)
Delivered to consumers:									
Domestic.....	....do.....	544	31			544	31	...	...
Commercial.....	....do.....	...	...			...	...	...	...
Industrial.....	....do.....	9,176	806			9,176	806	...	...
Vented to air, burned in flares, and other losses.....	....do.....	897	xxx	(⁶)	xxx	897	xxx	...	xxx
Secondary Products and Services									
Drilling oil, gas, dry, and service wells..	.....	...		9,011	366	...	...	...	9,011
Drilling in, spudding in, tailing in, and reworking wells.....	.....	xxx				xxx	...	xxx	
Pumping wells but not operating leases....	.....	xxx				xxx	(D)	xxx	
Other oil and gas field contract services..	.....	xxx	148	65	1	xxx	(D)	xxx	(D)
Services classified in other industries....	.....	xxx	65			xxx	(D)	...	(D)
Electric energy generated and sold.....	Million kwh..	...	...	(⁷)	(⁷)	...	...	...	...
Products purchased and resold without further processing.....	.....	xxx	(D)	xxx	(NA)	xxx	...	xxx	(D)
Other products ⁸.....	.....	xxx	...	xxx	1	xxx	...	xxx	...
Wyoming									
All products and services, total.....	.....	xxx	266,175	xxx	24,194	xxx	223,629	xxx	42,546
Primary Products									
Crude petroleum, total.....	1,000 barrels.	91,208	xxx	(NA)	xxx	90,159	xxx	1,049	xxx
Shipped.....	....do.....	91,131	216,861	22,269	19,676	90,082	214,314	1,049	2,547
Used in lease operations:									
For power and heat.....	....do.....	25	xxx	(NA)	xxx	25	xxx	...	xxx
For other purposes.....	....do.....	52	xxx	(NA)	xxx	52	xxx	...	xxx
Field condensate and drips shipped.....	....do.....	103	313	1	1	103	313	...	...
Natural gas:									
Gross production, total.....	Million cu.ft. ³	110,290	xxx	40,245	xxx	(D)	xxx	(D)	xxx
Gas from oil wells.....	....do.....	62,655	xxx	21,777	xxx	(D)	xxx	(D)	xxx
Gas from gas wells.....	....do.....	47,635	xxx	18,468	xxx	47,635	xxx	...	xxx
Withdrawn from underground storage.....	....do.....	297	xxx	(NA)	xxx	297	xxx	...	xxx
Purchased for use in lease operations...	....do.....	3,247	xxx	(NA)	xxx	2,892	xxx	355	xxx
Gross disposition, total.....	....do.....	113,834	xxx	40,245	xxx	(D)	xxx	(D)	xxx
Net deliveries to natural-gasoline plants ⁴.....	....do.....	10,897	2,499	(⁵)	(⁵)	10,897	2,499	...	...
Gross deliveries to natural-gasoline plants.....	....do.....	38,258	xxx	(NA)	xxx	38,258	xxx	...	xxx
Residue returned from natural-gasoline plants.....	....do.....	27,361	xxx	(NA)	xxx	27,361	xxx	...	xxx
Used in lease operations:									
For power and heat.....	....do.....	19,443	xxx	62,099	xxx	19,088	xxx	355	xxx
For gas lift (net).....	....do.....	2,314	xxx		xxx	2,314	xxx	...	xxx
Returned to underground formations for repressuring, pressure maintenance, and cycling.....	....do.....	8,855	xxx			8,855	xxx	...	xxx

See footnotes at end of table.

Table 5A.—PRODUCTS AND SERVICES OF THE CRUDE PETROLEUM AND NATURAL GAS INDUSTRIES AND TOTALS FOR SUCH PRODUCTS AND SERVICES IN ALL CRUDE PETROLEUM AND NATURAL GAS EXTRACTION INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954 AND 1939—Continued

Geographic division, State, and product	Unit of measure for quantity	Crude petroleum and natural gas extraction industries, total				Crude petroleum and natural gas industries 1954		Oil and gas field contract services industries 1954	
		1954		1939 ¹		Quantity	Value at wells (\$1,000)	Quantity	Value at wells (\$1,000)
		Quantity	Value at wells (\$1,000)	Quantity	Value at wells (\$1,000)				
MOUNTAIN—Continued									
Wyoming—Continued									
Primary Products—Continued									
Natural gas—Continued									
Gross disposition—Continued									
Delivered to distributors and transmission companies.....	Million cu.ft. ³	54,255	4,740	538,146	51,151	(D)	(D)	(D)	(D)
Delivered to consumers:									
Domestic.....	do.....	7	...			7	...	...	...
Industrial.....	do.....	3,585	323			3,585	323	...	...
Vented to air, burned in flares, and other losses.....	do.....	14,478	xxx	(⁶)	xxx	14,478	xxx	...	xxx
Secondary Products and Services									
Drilling oil, gas, dry, and service wells..		xxx	30,793	xxx	163,047	xxx	1,215	xxx	29,578
Drilling in, spudding in, tailing in, and reworking wells.....		xxx	720	xxx		xxx	36	xxx	684
Pumping wells but not operating leases....		xxx	89	xxx		xxx	89	xxx	...
Other oil and gas field contract services..		xxx	9,621	xxx	16292	xxx	102	xxx	9,519
Services classified in other industries....		xxx	87	xxx	...	xxx	(D)	xxx	(D)
Electric energy generated and sold.....	Million kwh....	2	13	(⁷)	4	2	13	...	...
Products purchased and resold without further processing.....		xxx	116	xxx	(NA)	xxx	...	xxx	116
Other products ⁸		xxx	...	xxx	9	xxx	...	xxx	...
Colorado ¹⁸									
All products and services, total.....		xxx	159,859	xxx	1,459	xxx	127,536	xxx	32,323
Primary Products									
Crude petroleum, total.....	1,000 barrels..	44,719	xxx	(NA)	xxx	44,505	xxx	214	xxx
Shipped.....	do.....	44,667	123,851	1,376	1,301	44,453	123,260	214	591
Used in lease operations:									
For power and heat.....	do.....	10	xxx	(NA)	xxx	10	xxx	...	xxx
For other purposes.....	do.....	42	xxx	(NA)	xxx	42	xxx	...	xxx
Field condensate and drips shipped.....	do.....	(D)	(D)	2	2	(D)	(D)	...	...
Natural gas:									
Gross production, total.....	Million cu.ft. ³	66,593	xxx	2,613	xxx	66,280	xxx	313	xxx
Gas from oil wells.....	do.....	37,535	xxx	367	xxx	37,392	xxx	143	xxx
Gas from gas wells.....	do.....	29,058	xxx	2,246	xxx	28,888	xxx	170	xxx
Withdrawn from underground storage.....	do.....	...	xxx	(NA)	xxx	...	xxx	...	xxx
Purchased for use in lease operations...	do.....	496	xxx	(NA)	xxx	377	xxx	119	xxx
Gross disposition, total.....	do.....	67,089	xxx	2,613	xxx	66,657	xxx	432	xxx
Net deliveries to natural-gasoline plants ⁴	do.....	5,757	411	(⁵)	(⁵)	5,757	411	...	...
Gross deliveries to natural-gasoline plants.....	do.....	17,565	xxx	(NA)	xxx	17,565	xxx	...	xxx
Residue returned from natural-gasoline plants.....	do.....	11,808	xxx	(NA)	xxx	11,808	xxx	...	xxx
Used in lease operations:									
For power and heat.....	do.....	5,715	xxx	6391	xxx	5,588	xxx	127	xxx
For gas lift (net).....	do.....	34	xxx			34	xxx	...	xxx
Returned to underground formations for repressuring, pressure maintenance, and cycling.....	do.....	15,220	xxx			15,220	xxx	...	xxx
Delivered to distributors and transmission companies.....	do.....	26,716	2,873	52,222	589	26,411	2,825	305	48
Delivered to consumers:									
Domestic.....	do.....	35	3			35	3	...	...
Industrial.....	do.....	8,188	891			8,188	891	...	...
Vented to air, burned in flares, and other losses.....	do.....	5,424	xxx	(⁶)	xxx	5,424	xxx	...	xxx

See footnotes at end of table.

Table 5A.—PRODUCTS AND SERVICES OF THE CRUDE PETROLEUM AND NATURAL GAS INDUSTRIES AND TOTALS FOR SUCH PRODUCTS AND SERVICES IN ALL CRUDE PETROLEUM AND NATURAL GAS EXTRACTION INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954 AND 1939—Continued

Geographic division, State, and product	Unit of measure for quantity	Crude petroleum and natural gas extraction industries, total				Crude petroleum and natural gas industries 1954		Oil and gas field contract services industries 1954	
		1954		1939 ¹		Quantity	Value at wells (\$1,000)	Quantity	Value at wells (\$1,000)
		Quantity	Value at wells (\$1,000)	Quantity	Value at wells (\$1,000)				
MOUNTAIN—Continued									
Colorado ¹⁸ —Continued									
Secondary Products and Services									
Drilling oil, gas, dry, and service wells.....		xxx	21,274	xxx	(19)	xxx	...	xxx	21,274
Drilling in, spudding in, tailing in, and reworking wells.....		xxx	204	xxx		xxx	...	xxx	204
Pumping wells but not operating leases.....		xxx	9,649	xxx	...	xxx	(D)	xxx	...
Other oil and gas field contract services.....		xxx		xxx	1967	xxx	(D)	xxx	(D)
Services classified in other industries.....		xxx	521	xxx	...	xxx	(D)	xxx	(D)
Products purchased and sold without further processing.....		xxx	(D)	xxx	(NA)	xxx	...	xxx	(D)
New Mexico									
All products and services, total.....		xxx	275,438	xxx	1335,600	xxx	236,731	xxx	38,707
Primary Products									
Crude petroleum, total.....	1,000 barrels.	73,832	xxx	(NA)	xxx	73,506	xxx	326	xxx
Shipped.....	do.	73,774	202,257	37,575	30,565	73,448	201,351	326	906
Used in lease operations:									
For power and heat.....	do.	15	xxx	(NA)	xxx	15	xxx	...	xxx
For other purposes.....	do.	43	xxx	(NA)	xxx	43	xxx	...	xxx
Field condensate and drips shipped.....	do.	572	1,602	1	(7)	572	1,602	...	...
Natural gas:									
Gross production, total.....	Million cu.ft. ³	455,154	xxx	105,863	xxx	453,099	xxx	2,055	xxx
Gas from oil wells.....	do.	201,515	xxx	78,520	xxx	200,000	xxx	1,515	xxx
Gas from gas wells.....	do.	253,639	xxx	27,343	xxx	253,099	xxx	540	xxx
Withdrawn from underground storage.....	do.	...	xxx	(NA)	xxx	...	xxx	...	xxx
Purchased for use in lease operations.....	do.	3,128	xxx	(NA)	xxx	2,439	xxx	689	xxx
Gross disposition, total.....	do.	458,282	xxx	105,863	xxx	455,538	xxx	2,744	xxx
Net deliveries to natural-gasoline plants ⁴	do.	215,533	13,241	(5)	(5)	215,533	13,241	...	...
Gross deliveries to natural-gasoline plants.....	do.	235,731	xxx	(NA)	xxx	235,731	xxx	...	xxx
Residue returned from natural-gasoline plants.....	do.	20,198	xxx	(NA)	xxx	20,198	xxx	...	xxx
Used in lease operations:									
For power and heat.....	do.	8,581	xxx		xxx	7,892	xxx	689	xxx
For gas lift (net).....	do.	9,682	xxx		xxx	9,682	xxx	...	xxx
Returned to underground formations:									
For repressuring, pressure maintenance, and cycling.....	do.	1,284	xxx		xxx	1,284	xxx	...	xxx
For underground storage.....	do.	409	xxx		xxx	409	xxx	...	xxx
Delivered to distributors and transmission companies.....	do.	136,527	13,401			134,502	13,097	2,025	304
Delivered to consumers:									
Domestic.....	do.	38	5		51,434	38	5	...	...
Industrial.....	do.	77,918	6,559			77,918	6,559	...	...
Vented to air, burned in flares, and other losses.....	do.	8,310	xxx	(6)	xxx	8,280	xxx	30	xxx
Secondary Products and Services									
Drilling oil, gas, dry, and service wells.....		xxx	28,626	xxx		xxx	760	xxx	27,866
Drilling in, spudding in, tailing in, and reworking wells.....		xxx	650	xxx	3,331	xxx	...	xxx	650
Pumping wells but not operating leases.....		xxx	35	xxx	9	xxx	96	xxx	
Other oil and gas field contract services.....		xxx	8,431	xxx	13228	xxx		xxx	8,370
Services classified in other industries.....		xxx	392	xxx	1	xxx	...	xxx	392
Electric energy generated and sold.....	Million kwh...	3	20	...	...	3	20	...	...
Products purchased and resold without further processing.....		xxx	219	xxx	(NA)	xxx	...	xxx	219
Other products ⁸		xxx	...	xxx	32	xxx	...	xxx	...

See footnotes at end of table.

Table 5A.—PRODUCTS AND SERVICES OF THE CRUDE PETROLEUM AND NATURAL GAS INDUSTRIES AND TOTALS FOR SUCH PRODUCTS AND SERVICES IN ALL CRUDE PETROLEUM AND NATURAL GAS EXTRACTION INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954 AND 1939—Continued

Geographic division, State, and product	Unit of measure for quantity	Crude petroleum and natural gas extraction industries, total				Crude petroleum and natural gas industries 1954		Oil and gas field contract services industries 1954	
		1954		1939 ¹		Quantity	Value at wells (\$1,000)	Quantity	Value at wells (\$1,000)
		Quantity	Value at wells (\$1,000)	Quantity	Value at wells (\$1,000)				
MOUNTAIN—Continued									
Utah									
All products and services, total.....		xxx	9,064	xxx	¹² 231	xxx	(D)	xxx	(D)
Primary Products									
Crude petroleum, total.....	1,000 barrels.	(D)	xxx	(NA)	xxx	(D)	xxx	(D)	xxx
Shipped.....	do.....	(D)	(D)	1	1	(D)	(D)	(D)	(D)
Used in lease operations for purposes other than power and heat.....	do.....	1	xxx	(NA)	xxx	1	xxx	...	xxx
Field condensate and drips shipped.....	do.....	(D)	(D)	19	17	(D)	(D)	...	...
Natural gas:									
Gross production, total.....	Million cu.ft. ³	16,694	xxx	5,877	xxx	16,694	xxx	...	xxx
Gas from oil wells.....	do.....	406	xxx	...	xxx	406	xxx	...	xxx
Gas from gas wells.....	do.....	16,288	xxx	5,877	xxx	16,288	xxx	...	xxx
Gross disposition, total.....	do.....	16,694	xxx	5,877	xxx	16,694	xxx	...	xxx
Used in lease operations for power and heat.....	do.....	450	xxx	⁶ 46	xxx	450	xxx	...	xxx
Delivered to distributors and transmission companies.....	do.....	15,838	2,253	5,831	213	15,838	2,253	...	...
Delivered to consumers.....	do.....	...	...					...	...
Vented to air, burned in flares, and other losses.....	do.....	406	xxx	(⁶)	xxx	406	xxx	...	xxx
Secondary Products and Services									
Drilling oil, gas, dry, and service wells...		xxx	(D)	xxx	...	xxx	...	xxx	(D)
Drilling in, spudding in, tailing in, and reworking wells.....		xxx	(D)	xxx	...	xxx	...	xxx	(D)
Other oil and gas field contract services...		xxx	(D)	xxx	...	xxx	...	xxx	(D)
Arizona and Nevada									
All products and services, total.....		xxx	579	xxx	...	xxx	(D)	xxx	(D)
Primary Products									
Crude petroleum, total.....	1,000 barrels.	(D)	xxx	...	xxx	(D)	xxx	(D)	xxx
Shipped.....	do.....	(D)	(D)	...	...	(D)	(D)	(D)	(D)
Used in lease operations for purposes other than power and heat.....	do.....	1	xxx	...	xxx	1	xxx	...	xxx
Natural gas:									
Gross production (gas from oil wells)...	Million cu.ft. ³	2	xxx	...	xxx	2	xxx	...	xxx
Gross disposition (used in lease operations for power and heat).....	do.....	2	xxx	...	xxx	2	xxx	...	xxx
Secondary Products and Services									
Drilling wells and other oil and gas field contract services.....		xxx	(D)	xxx	...	xxx	...	xxx	(D)
PACIFIC									
All products and services, total.....		xxx	1,189,748	xxx	¹² 266,793	xxx	1,081,525	xxx	108,223
Primary Products									
Crude petroleum, total.....	1,000 barrels.	356,926	xxx	(NA)	xxx	355,958	xxx	968	xxx
Shipped.....	do.....	356,322	927,081	223,904	229,963	355,354	925,139	968	1,942
Used in lease operations:									
For power and heat.....	do.....	269	xxx	(NA)	xxx	269	xxx	...	xxx
For other purposes.....	do.....	335	xxx	(NA)	xxx	335	xxx	...	xxx
Field condensate and drips shipped.....	do.....	145	480	202	389	145	480	...	...

See footnotes at end of table.

Table 5A.—PRODUCTS AND SERVICES OF THE CRUDE PETROLEUM AND NATURAL GAS INDUSTRIES AND TOTALS FOR SUCH PRODUCTS AND SERVICES IN ALL CRUDE PETROLEUM AND NATURAL GAS EXTRACTION INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954 AND 1939—Continued

Geographic division, State, and product	Unit of measure for quantity	Crude petroleum and natural gas extraction industries, total				Crude petroleum and natural gas industries 1954		Oil and gas field contract services industries 1954			
		1954		1939 ¹		Quantity	Value at wells (\$1,000)	Quantity	Value at wells (\$1,000)		
		Quantity	Value at wells (\$1,000)	Quantity	Value at wells (\$1,000)						
PACIFIC—Continued											
Primary Products—Continued											
Natural gas:											
Gross production, total	Million cu.ft. ³	761,893	xxx	393,820	xxx	761,597	xxx	296	xxx		
Gas from oil wells.....	.....do.....	574,649	xxx	367,754	xxx	574,396	xxx	253	xxx	
Gas from gas wells.....	.....do.....	187,244	xxx	26,066	xxx	187,201	xxx	43	xxx	
Withdrawn from underground storage.....	.....do.....	...	xxx	(NA)	xxx	...	xxx	...	xxx	
Purchased for use in lease operations....	.....do.....	4,600	xxx	(NA)	xxx	4,121	xxx	479	xxx	
Gross disposition, total.....	.....do.....	766,493	xxx	393,820	...	765,718	xxx	775	xxx	
Net deliveries to natural-gasoline plants ⁴.....	.....do.....	184,634	101,263	(⁵)	(⁵)	184,634	101,263	...	...
Gross deliveries to natural-gasoline plants.....	.....do.....	590,577	xxx	(NA)	xxx	590,577	xxx	...	xxx	
Residue returned from natural-gasoline plants.....	.....do.....	405,943	xxx	(NA)	xxx	405,943	xxx	...	xxx	
Used in lease operations:											
For power and heat.....	.....do.....	62,364	xxx	} ⁶ 117,487 {	xxx	61,847	xxx	517	xxx	
For gas lift (net).....	.....do.....	27,641	xxx		xxx	27,641	xxx	...	xxx	
Returned to underground formations:											
For repressuring, pressure maintenance, and cycling.....	.....do.....	224,529	xxx	} ⁵ 276,333 {	xxx	224,529	xxx	...	xxx	
For underground storage.....	.....do.....	...	xxx		xxx	...	xxx	...	xxx	
Delivered to distributors and transmission companies.....	.....do.....	207,961	42,863	} ⁵ 276,333 {	⁵ 18,850 {	207,715	42,799	246	64	
Delivered to consumers:											
Domestic.....	.....do.....	167	31			167	31	...	...
Commercial.....	.....do.....	...	...			...	...	...	...
Industrial.....	.....do.....	43,726	8,171	43,726	8,171	...	...		
Vented to air, burned in flares, and other losses.....	.....do.....	15,471	xxx	(⁶)	xxx	15,459	xxx	12	xxx	
Secondary Products and Services											
Drilling oil, gas, dry, and service wells...	.....	xxx	68,108	xxx	} 8,017 {	xxx	992	xxx	67,116	
Drilling in, spudding in, tailing in, and reworking wells.....	.....	xxx	2,145	xxx		xxx	57	xxx	2,088	
Pumping wells but not operating leases.....	.....	xxx	1,314	xxx		988	1,067	xxx	247	
Other oil and gas field contract services...	.....	xxx	36,356	xxx	¹² 8,575	xxx	1,471	xxx	34,885	
Services classified in other industries.....	.....	xxx	744	xxx	1	xxx	46	xxx	698	
Electric energy generated and sold.....	Million kwh...	1	9	(⁷)	1	1	9	...	...
Products purchased and resold without further processing.....	.....	xxx	1,183	xxx	(NA)	xxx	...	xxx	1,183	
Other products ⁸.....	.....	xxx	...	xxx	9	xxx	...	xxx	...	
California											
All products and services, total.....	.....	xxx	1,189,695	xxx	266,793	xxx	1,081,525	xxx	108,170	
Primary Products											
Crude petroleum, total.....	1,000 barrels.	356,926	xxx	(NA)	xxx	355,958	xxx	968	xxx		
Shipped.....	.....do.....	356,322	927,081	223,904	229,963	355,354	925,139	968	1,942	
Used in lease operations:											
For power and heat.....	.....do.....	269	xxx	(NA)	xxx	269	xxx	...	xxx	
For other purposes.....	.....do.....	335	xxx	(NA)	xxx	335	xxx	...	xxx	
Field condensate and drips shipped.....	.....do.....	145	480	202	389	145	480	...	...
Natural gas:											
Gross production, total.....	Million cu.ft. ³	761,893	xxx	393,820	xxx	761,597	xxx	296	xxx		
Gas from oil wells.....	.....do.....	574,649	xxx	367,754	xxx	574,396	xxx	253	xxx	
Gas from gas wells.....	.....do.....	187,244	xxx	26,066	xxx	187,201	xxx	43	xxx	
Withdrawn from underground storage.....	.....do.....	...	xxx	(NA)	xxx	...	xxx	...	xxx	
Purchased for use in lease operations....	.....do.....	4,600	xxx	(NA)	xxx	4,121	xxx	479	xxx	

See footnotes at end of table.

Table 5A.—PRODUCTS AND SERVICES OF THE CRUDE PETROLEUM AND NATURAL GAS INDUSTRIES AND TOTALS FOR SUCH PRODUCTS AND SERVICES IN ALL CRUDE PETROLEUM AND NATURAL GAS EXTRACTION INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954 AND 1939—Continued

Geographic division, State, and product	Unit of measure for quantity	Crude petroleum and natural gas extraction industries, total				Crude petroleum and natural gas industries 1954		Oil and gas field contract services industries 1954		
		1954		1939 ¹		Quantity	Value at wells (\$1,000)	Quantity	Value at wells (\$1,000)	
		Quantity	Value at wells (\$1,000)	Quantity	Value at wells (\$1,000)					
PACIFIC—Continued										
California—Continued										
Primary Products—Continued										
Natural gas—Continued										
Gross disposition, total.....	Million cu.ft. ³	766,493	xxx	393,820	xxx	765,718	xxx	775	xxx	
Net deliveries to natural-gasoline plants ⁴.....	...do.....	184,634	101,263	(⁵)	(⁵)	184,634	101,263	...	...
Gross deliveries to natural-gasoline plants.....	...do.....	590,577	xxx	(NA)	xxx	590,577	xxx	...	xxx	
Residue returned from natural-gasoline plants.....	...do.....	405,943	xxx	(NA)	xxx	405,943	xxx	...	xxx	
Used in lease operations:										
For power and heat.....	...do.....	62,364	xxx	} 6117,487 {	xxx	61,847	xxx	517	xxx	
For gas lift (net).....	...do.....	27,641	xxx		xxx	27,641	xxx	...	xxx	
Returned to underground formations for repressuring, pressure maintenance, and cycling.....	...do.....	224,529	xxx	} 207,715 {	xxx	224,529	xxx	...	xxx	
Delivered to distributors and transmission companies.....	...do.....	207,961	42,863		207,715	42,799	246	64		
Delivered to consumers:				} 5276,333 {	518,850 {					
Domestic.....	...do.....	167	31			167	31	...	...
Commercial.....	...do.....	...	...			...	...	...	...
Industrial.....	...do.....	43,726	8,171			43,726	8,171	...	...
Vented to air, burned in flares, and other losses.....	...do.....	15,471	xxx	(⁶)	xxx	15,459	xxx	12	xxx	
Secondary Products and Services										
Drilling oil, gas, dry, and service wells..	.....	xxx	68,108	xxx	} 8,017 {	xxx	992	xxx	67,116
Drilling in, spudding in, tailing in, and reworking wells.....	.....	xxx	2,145	xxx		xxx	57	xxx	2,088
Pumping wells but not operating leases.....	.....	xxx	1,314	xxx	} 8,575 {	xxx	1,067	xxx	247
Other oil and gas field contract services..	.....	xxx	36,303	xxx		xxx	1,471	xxx	34,832
Services classified in other industries.....	.....	xxx	744	xxx	} 1 {	xxx	46	xxx	698
Electric energy generated and sold.....	Million kwh...	1	9	(⁷)		1	1	9
Products purchased and resold without further processing.....	.....	xxx	1,183	xxx	(NA)	xxx	...	xxx	1,183
Other products ⁸.....	.....	xxx	...	xxx	9	xxx	...	xxx	...
Washington and Oregon										
All products and services (other than oil and gas field contract services).....	.....	xxx	53	xxx	(¹²)	xxx	...	xxx	53

xxx Not applicable. D Withheld to avoid approximately disclosing figures for individual companies. NA Not available. ¹For 1939, all figures shown on lines for shipments or disposition represent production. For establishments primarily engaged in performing contract services represents total establishment receipts by establishments primarily performing the specified services. ²Includes receipts of \$577 thousand for contract work in the natural gasoline and cycle condensate industries. Of this total \$455 thousand was for services performed in Texas, and \$122 thousand for services in Kansas, Arkansas, Louisiana, Oklahoma, and California. ³Represents volumes adjusted to a pressure base of 14.73 pounds absolute at 60°F. ⁴For 1954, respondents were requested to include, besides the value of residue gas, the producers' realization from all products contained in the gas delivered to natural-gasoline plants. ⁵Figures for net deliveries to natural-gasoline plants are included with those for deliveries to distribution and transmission companies and consumers. The combined figures shown were reported as "Marketed production". ⁶Figures for gas vented to air, burned in flares, and other losses are included with those for gas used in lease operations and for gas returned to underground formations. The combined figures shown were reported as "All other production". ⁷Less than one-half of the unit of measure specified. ⁸Represents sales of salt, water, and steam. ⁹The figures for Indiana and Montana are somewhat overstated and the figure for Arkansas is somewhat understated due to the subtraction from the Arkansas figure of all of a consolidated figure of \$300 thousand for the 3 States. This combined figure represents receipts for hauling services performed by contractors which are not classified in the Crude petroleum and Natural gas extraction industries for 1954. ¹⁰For Michigan, figures for "Pumping wells but not operating leases" for the oil and gas field contract services industries are included with those for "Other oil and gas field contract services". ¹¹For 1954, figures for 2 establishments in Ohio in the oil and gas field contract services industries are included with those for Michigan, amounting to less than 0.5 percent of the combined total receipts for these industries as shown for Michigan. ¹²Figures for the oil and gas field contract services industries in Missouri and Nebraska are included with the figures for Mississippi. No reports of establishments in the crude petroleum or natural gas industry in Nebraska were received for 1939. Figures for the crude petroleum and natural gas industries in South Dakota and Washington are included with the figures for Utah. No establishments in the oil and gas field contract services industries were reported for these States or for Iowa for 1939 and no oil or gas production was reported for Iowa for 1939. ¹³The figure for Kansas is somewhat understated and the figures for New Mexico somewhat overstated due to the subtraction from the Kansas figure of all of a combined figure of \$227 thousand for the 2 States. This combined figure represents receipts by establishments primarily engaged in performing oil and gas field machine shop work, which is not classified in the crude petroleum and natural gas extraction industries for 1954. ¹⁴For 1954, figures for 2 establishments in North Dakota and 11 establishments in Nebraska in the oil and gas field contract services industries are included with the figures for Kansas, amounting to less than one percent of the combined total receipts for these industries as shown for Kansas.

Footnotes continued on next page.

Footnotes for Table 5A.—Continued

¹⁵The figure for West Virginia is somewhat understated and the figure for Kentucky somewhat overstated due to the subtraction from the West Virginia figure of all of a combined figure of \$45 thousand for the two States. This combined figure represents receipts by establishments primarily engaged in performing oil and gas field hauling services, which are not classified in the crude petroleum and natural gas extraction industries for 1954.

¹⁶Figures for "Other oil and gas field contract services", in Mississippi and a portion of such figures for Wyoming, are included with those for "Drilling . . . wells and Drilling in . . . wells".

¹⁷The figure for "Pumping wells but not operating leases" is somewhat overstated and the figure for "Other oil and gas field contract services" is somewhat understated since the former includes a figure of \$361 thousand for the oil and gas field contract services industry which represents a combined figure for Michigan and Texas.

¹⁸For 1954, figures for 46 establishments in Montana in the oil and gas field contract services industries are included with the figures for Colorado.

¹⁹Figures for "Drilling . . . wells and Drilling in . . . wells" are included with those for "Other oil and gas field contract services".

Table 5B.—NUMBER, FOOTAGE, AND COST OF DRILLING AND EQUIPPING OIL, GAS, DRY, AND SERVICE
(Represents wells drilled and completed during 1954 by all operators of oil-and gas-field properties covered in the census whether

Item	United States, total					
	All wells		Wells drilled on contract		Wells drilled for own account	
	1954 ¹	1939	1954 ¹	1939	1954 ¹	1939
1 Number of wells drilled, total ¹⁰	52,327	22,560	38,260	14,085	14,067	8,475
2 By rotary tools.....	43,493	(NA)	(NA)	(NA)	(NA)	(NA)
3 By cable tools.....	8,834	(NA)	(NA)	(NA)	(NA)	(NA)
4 Oil wells ¹¹	28,879	17,263	21,567	11,004	7,312	6,259
5 Gas wells ¹¹	3,885	1,594	2,923	964	962	630
6 Dry holes ¹²	16,422	3,703	11,556	2,117	4,866	1,586
7 Service wells ¹²	3,141	(NA)	2,214	(NA)	927	(NA)
8 Footage drilled, total.....1,000 ft..	210,801	72,191	158,430	43,174	52,371	29,017
9 By rotary tools.....do....	195,363	(NA)	(NA)	(NA)	(NA)	(NA)
10 By cable tools.....do....	15,438	(NA)	(NA)	(NA)	(NA)	(NA)
11 Oil wells.....do....	117,897	55,837	90,201	33,802	27,696	22,035
12 Gas wells.....do....	18,510	4,439	13,694	2,776	4,816	1,663
13 Dry holes.....do....	70,213	11,915	51,369	6,596	18,844	5,319
14 Service wells.....do....	4,181	(NA)	3,166	(NA)	1,015	(NA)
15 Average footage drilled per well, all wells.....	4,029	3,200	4,141	3,065	3,723	3,424
16 Oil wells.....	4,082	3,234	4,182	3,072	3,788	3,521
17 Gas wells.....	4,764	2,785	4,685	2,880	5,006	2,640
18 Dry holes.....	4,276	3,218	4,445	3,116	3,873	3,354
19 Service wells.....	1,331	(NA)	1,430	(NA)	1,095	(NA)
20 Cost of drilling and equipping wells, total ¹³ ..\$1,000..	2,306,947	404,904	1,792,609	239,977	514,338	164,927
21 Per well.....do....	44.1	17.9	46.9	17.0	36.6	19.5
22 Per foot.....do....\$1....	10.94	5.61	11.31	5.56	9.82	5.68
23 Oil wells.....do....\$1,000..	1,449,654	330,547	1,133,575	197,927	316,079	132,620
24 Per well.....do....	50.2	19.1	52.6	18.0	43.2	21.2
25 Per foot.....do....\$1....	12.30	5.92	12.57	5.86	11.41	6.02
26 Gas wells.....do....\$1,000..	263,619	20,926	194,521	13,931	69,098	6,995
27 Per well.....do....	67.9	13.1	66.5	14.5	71.8	11.1
28 Per foot.....do....\$1....	14.24	4.71	14.20	5.02	14.35	4.21
29 Dry holes.....do....\$1,000..	565,745	53,431	441,847	28,119	123,898	25,312
30 Per well.....do....	34.5	14.4	38.2	13.3	25.5	16.0
31 Per foot.....do....\$1....	8.06	4.48	8.60	4.26	6.57	4.76
32 Service wells.....do....\$1,000..	27,929	(NA)	22,666	(NA)	5,263	(NA)
33 Per well.....do....	8.9	(NA)	10.2	(NA)	5.7	(NA)
34 Per foot.....do....\$1....	6.68	(NA)	7.16	(NA)	5.19	(NA)
35 Cost, excluding amount paid or due con- tractors, total.....\$1,000..	1,307,142	256,923	825,862	100,621	481,280	156,302
36 Oil wells.....do....	882,471	213,807	586,098	88,095	296,373	125,712
37 Gas wells.....do....	158,102	12,366	93,073	5,679	65,029	6,687
38 Dry holes.....do....	251,697	30,750	136,587	6,848	115,110	23,902
39 Service wells.....do....	14,872	(NA)	10,104	(NA)	4,768	(NA)
40 Cost of drilling, total ¹⁴.....do....	702,346	131,718	366,995	30,694	335,351	101,024
41 Oil wells.....do....	387,299	98,228	210,019	23,549	177,280	74,679
42 Gas wells.....do....	90,510	6,344	43,573	1,883	46,937	4,461
43 Dry holes.....do....	217,793	27,146	109,696	5,261	108,097	21,885
44 Service wells.....do....	6,744	(NA)	3,707	(NA)	3,037	(NA)
45 Cost of casing, total ¹⁵.....do....	344,683	75,317	259,857	40,632	84,826	34,685
46 Oil wells.....do....	263,011	67,730	197,872	36,548	65,139	31,182
47 Gas wells.....do....	46,485	4,347	33,891	2,724	12,594	1,623
48 Dry holes.....do....	30,419	3,240	24,320	1,361	6,099	1,879
49 Service wells.....do....	4,768	(NA)	3,774	(NA)	994	(NA)
50 Cost of equipment for flowing and pumping and production derrick, total ¹⁶.....do....	260,113	49,888	199,010	29,295	61,103	20,593
51 Oil wells.....do....	232,161	47,849	178,207	27,998	53,954	19,851
52 Gas wells.....do....	21,107	1,675	15,609	1,072	5,498	603
53 Dry holes.....do....	3,485	364	2,571	226	914	138
54 Service wells.....do....	3,360	(NA)	2,623	(NA)	737	(NA)
55 Amount paid or due contractors for drilling and equipping wells, total.....do....	999,805	147,981	966,747	139,355	33,058	8,626
56 Oil wells.....do....	567,183	116,740	547,477	109,832	19,706	6,908
57 Gas wells.....do....	105,517	8,560	101,448	8,252	4,069	308
58 Dry holes.....do....	314,048	22,681	305,260	21,271	8,788	1,410
59 Service wells.....do....	13,057	(NA)	12,562	(NA)	495	(NA)
60 Wells recompleted: Number.....	3,703	(NA)	xxx	xxx	xxx	xxx
61 Cost of recompleting, total.....\$1,000..	47,376	(NA)	xxx	xxx	xxx	xxx
62 Cost, excluding amount paid or due contractors, total.....do....	27,126	(NA)	xxx	xxx	xxx	xxx
63 Cost of drilling.....do....	19,736	(NA)	xxx	xxx	xxx	xxx
64 Cost of casing.....do....	2,642	(NA)	xxx	xxx	xxx	xxx
65 Cost of equipment for flowing and pumping and production derrick.....do....	4,748	(NA)	xxx	xxx	xxx	xxx
66 Amount paid or due contractors for re- completing wells.....do....	20,250	(NA)	xxx	xxx	xxx	xxx

See footnotes at end of table.

WELLS IN THE UNITED STATES: 1954 AND 1939; AND FOR GEOGRAPHIC DIVISIONS AND STATES: 1954

they are classified in the Crude petroleum or Natural gas industries or in the Oil and gas field contract services industries)

Middle Atlantic									
Total			New York			Pennsylvania			
All wells	Wells drilled on contract	Wells drilled for own account	All wells	Wells drilled on contract	Wells drilled for own account	All wells	Wells drilled on contract	Wells drilled for own account	
1,461	1,041	420	413	339	74	1,048	702	346	1
107	(NA)	(NA)	...	(NA)	(NA)	107	(NA)	(NA)	2
1,354	(NA)	(NA)	413	(NA)	(NA)	941	(NA)	(NA)	3
521	362	159	206	170	36	315	192	123	4
285	198	87	5	3	2	280	195	85	5
220	152	68	15	13	2	205	139	66	6
435	329	106	187	153	34	248	176	72	7
3,615	2,618	997	570	463	107	3,045	2,155	890	8
676	(NA)	(NA)	...	(NA)	(NA)	676	(NA)	(NA)	9
2,939	(NA)	(NA)	570	(NA)	(NA)	2,369	(NA)	(NA)	10
726	521	205	279	226	53	447	295	152	11
1,285	886	399	9	237	54	1,276	1,860	738	12
811	572	239	33			778			13
793	639	154	249			544			14
2,474	2,515	2,374	1,380	1,366	1,446	2,906	3,070	2,572	15
1,393	1,439	1,289	1,354	1,329	1,472	1,419	1,536	1,236	16
4,509	4,475	4,586	1,800	1,402	1,421	4,557	3,647	3,309	17
3,686	3,763	3,515	2,200			3,795			18
1,823	1,942	1,453	1,332			2,194			19
22,739	18,075	4,664	1,792	1,493	299	20,947	16,582	4,365	20
15.6	17.4	11.1	4.3	4.4	4.0	20.0	23.6	12.6	21
6.29	6.90	4.68	3.14	3.22	2.79	6.88	7.69	4.90	22
2,238	1,587	651	876	731	145	1,362	856	506	23
4.3	4.4	4.1	4.3	4.3	4.0	4.3	4.5	4.1	24
3.08	3.05	3.18	3.14	3.23	2.74	3.05	2.90	3.33	25
10,757	8,227	2,530	53	(D)	(D)	10,704	(D)	(D)	26
37.7	41.6	29.1	10.6	(D)	(D)	38.2	(D)	(D)	27
8.37	9.29	6.34	5.89	(D)	(D)	8.39	(D)	(D)	28
5,509	4,575	934	161	(D)	(D)	5,348	(D)	(D)	29
25.0	30.1	13.7	10.7	(D)	(D)	26.1	(D)	(D)	30
6.79	8.00	3.91	4.88	(D)	(D)	6.87	(D)	(D)	31
4,235	3,686	549	702	(D)	(D)	3,533	(D)	(D)	32
9.7	11.2	5.2	3.8	(D)	(D)	14.2	(D)	(D)	33
5.34	5.77	3.56	2.82	(D)	(D)	6.49	(D)	(D)	34
10,460	5,894	4,566	976	713	263	9,484	5,181	4,303	35
1,416	775	641	556	421	135	860	354	506	36
5,207	2,735	2,472	17	292	128	5,190	4,827	3,797	37
1,573	643	930	53			1,520			38
2,264	1,741	523	350			1,914			39
5,283	1,909	3,374	314	141	173	4,969	1,768	3,201	40
543	137	406	141	69	72	402	68	334	41
2,506	700	1,806	8	72	101	2,498	1,700	2,867	42
1,363	485	878	51			1,312			43
871	587	284	114			757			44
3,407	2,626	781	164	129	35	3,243	2,497	746	45
249	169	80	90	66	24	159	103	56	46
2,141	1,626	515	6	3	3	2,135	1,623	512	47
170	120	50	2	...	2	168	120	48	48
847	711	136	66	60	6	781	651	130	49
1,770	1,359	411	498	443	55	1,272	916	356	50
624	469	155	325	286	39	299	183	116	51
560	409	151	3	1	2	557	408	149	52
40	38	2	...	...	...	40	38	2	53
546	443	103	170	156	14	376	287	89	54
12,279	12,181	98	816	780	36	11,463	11,401	62	55
822	812	10	320	310	10	502	502	...	56
5,550	5,492	58	36	36	...	5,514	5,456	58	57
3,936	3,932	4	108	108	...	3,828	3,824	4	58
1,971	1,945	26	352	326	26	1,619	1,619	...	59
88	xxx	xxx	5	xxx	xxx	83	xxx	xxx	60
157	xxx	xxx	4	xxx	xxx	153	xxx	xxx	61
98	xxx	xxx	...	xxx	xxx	98	xxx	xxx	62
63	xxx	xxx	...	xxx	xxx	63	xxx	xxx	63
11	xxx	xxx	...	xxx	xxx	11	xxx	xxx	64
24	xxx	xxx	...	xxx	xxx	24	xxx	xxx	65
59	xxx	xxx	4	xxx	xxx	55	xxx	xxx	66

Table 5B.—NUMBER, FOOTAGE, AND COST OF DRILLING AND EQUIPPING OIL, GAS, DRY, AND SERVICE

Item	East North Central					
	Total			Ohio		
	All wells	Wells drilled on contract	Wells drilled for own account	All wells	Wells drilled on contract	Wells drilled for own account
1 Number of wells drilled, total ¹⁰	5,581	3,801	1,780	988	752	236
2 By rotary tools.....	3,363	(NA)	(NA)	102	(NA)	(NA)
3 By cable tools.....	2,218	(NA)	(NA)	886	(NA)	(NA)
4 Oil wells ¹¹	2,698	1,880	818	438	341	97
5 Gas wells ¹¹	263	189	74	227	169	58
6 Dry holes ¹²	2,103	1,428	675	275	202	73
7 Service wells ¹²	517	304	213	48	40	8
8 Footage drilled, total.....1,000 ft..	13,015	9,104	3,911	2,204	1,744	460
9 By rotary tools.....do....	8,113	(NA)	(NA)	246	(NA)	(NA)
10 By cable tools.....do....	4,902	(NA)	(NA)	1,958	(NA)	(NA)
11 Oil wells.....do....	6,763	4,860	1,903	1,043	841	202
12 Gas wells.....do....	561	402	159	496		
13 Dry holes.....do....	5,101	3,496	1,605	621	903	258
14 Service wells.....do....	590	346	244	44		
15 Average footage drilled per well, all wells.....	2,332	2,395	2,197	2,231	2,319	1,949
16 Oil wells.....	2,507	2,585	2,326	2,381	2,466	2,082
17 Gas wells.....	2,133	2,127	2,149	2,185		
18 Dry holes.....	2,426	2,448	2,378	2,258	2,197	1,856
19 Service wells.....	1,141	1,138	1,146	917		
20 Cost of drilling and equipping wells, total ¹³.....\$1,000..	90,805	67,922	22,883	11,994	9,915	2,079
21 Per well.....do....	16.3	17.9	12.9	12.1	13.2	8.8
22 Per foot.....do....\$1....	6.98	7.46	5.85	5.44	5.69	4.52
23 Oil wells.....\$1,000..	61,045	45,642	15,403	6,936	5,786	1,150
24 Per well.....do....	22.6	24.3	18.8	15.8	17.0	11.9
25 Per foot.....do....\$1....	9.03	9.39	8.09	6.65	6.88	5.69
26 Gas wells.....\$1,000..	3,461	2,557	904	2,855	(D)	(D)
27 Per well.....do....	13.2	13.5	12.2	12.6	(D)	(D)
28 Per foot.....do....\$1....	6.17	6.36	5.69	5.76	(D)	(D)
29 Dry holes.....\$1,000..	22,261	16,940	5,321	1,940	(D)	(D)
30 Per well.....do....	10.6	11.9	7.9	7.1	(D)	(D)
31 Per foot.....do....\$1....	4.36	4.85	3.32	3.12	(D)	(D)
32 Service wells.....\$1,000..	4,038	2,783	1,255	263	(D)	(D)
33 Per well.....do....	7.8	9.2	5.9	5.5	(D)	(D)
34 Per foot.....do....\$1....	6.84	8.04	5.14	5.98	(D)	(D)
35 Cost, excluding amount paid or due con- tractors, total.....\$1,000..	50,797	28,640	22,157	6,135	4,120	2,015
36 Oil wells.....do....	38,211	23,109	15,102	3,987	2,856	1,131
37 Gas wells.....do....	1,930	1,071	859	1,458		
38 Dry holes.....do....	8,372	3,324	5,048	549	1,264	884
39 Service wells.....do....	2,284	1,136	1,148	141		
40 Cost of drilling, total ¹⁴.....do....	21,833	8,833	13,000	1,689	518	1,171
41 Oil wells.....do....	12,312	5,624	6,688	757	221	536
42 Gas wells.....do....	738	186	552	418		
43 Dry holes.....do....	7,636	2,691	4,945	487	297	635
44 Service wells.....do....	1,147	332	815	27		
45 Cost of casing, total ¹⁵.....do....	12,756	8,722	4,034	2,530	2,115	415
46 Oil wells.....do....	10,627	7,126	3,501	1,735	1,478	257
47 Gas wells.....do....	796	595	201	688		
48 Dry holes.....do....	610	507	103	62	637	158
49 Service wells.....do....	723	494	229	45		
50 Cost of equipment for flowing and pumping and production derrick, total ¹⁶.....do....	16,208	11,085	5,123	1,916	1,487	429
51 Oil wells.....do....	15,272	10,359	4,913	1,495	1,157	338
52 Gas wells.....do....	396	290	106	352	268	84
53 Dry holes.....do....	126	126	...	...	...	...
54 Service wells.....do....	414	310	104	69	62	7
55 Amount paid or due contractors for drilling and equipping wells, total.....do....	40,008	39,282	726	5,859	5,795	64
56 Oil wells.....do....	22,834	22,533	301	2,949	2,930	19
57 Gas wells.....do....	1,531	1,486	45	1,397	1,366	31
58 Dry holes.....do....	13,889	13,616	273	1,391	1,377	14
59 Service wells.....do....	1,754	1,647	107	122	122	...
60 Wells recompleted: Number.....	285	xxx	xxx	51	xxx	xxx
61 Cost of recompleting, total.....\$1,000..	1,237	xxx	xxx	95	xxx	xxx
62 Cost, excluding amount paid or due contractors, total.....do....	688	xxx	xxx	95	xxx	xxx
63 Cost of drilling.....do....	340	xxx	xxx	36	xxx	xxx
64 Cost of casing.....do....	127	xxx	xxx	15	xxx	xxx
65 Cost of equipment for flowing and pumping and production derrick.....do....	221	xxx	xxx	44	xxx	xxx
66 Amount paid or due contractors for re- completing wells.....do....	549	xxx	xxx	...	xxx	xxx

See footnotes at end of table.

WELLS IN THE UNITED STATES: 1954 AND 1939; AND FOR GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

East North Central—Continued								
Indiana			Illinois			Michigan		
All wells	Wells drilled on contract	Wells drilled for own account	All wells	Wells drilled on contract	Wells drilled for own account	All wells	Wells drilled on contract	Wells drilled for own account
801	535	266	3,231	2,143	1,088	561	371	190
384	(NA)	(NA)	2,698	(NA)	(NA)	179	(NA)	(NA)
417	(NA)	(NA)	533	(NA)	(NA)	382	(NA)	(NA)
296	185	111	1,746	1,199	547	218	155	63
18	12	6	6	6	...	12	2	10
449	301	148	1,054	715	339	325	210	115
38	37	1	425	223	202	6	4	2
1,532	979	553	7,567	5,151	2,416	1,712	1,230	482
854	(NA)	(NA)	6,421	(NA)	(NA)	592	(NA)	(NA)
678	(NA)	(NA)	1,146	(NA)	(NA)	1,120	(NA)	(NA)
627	389	238	4,317	3,038	1,279	776	592	184
21	590	315	5	5	...	39	638	298
844			2,749	1,848	901	887		
40			496	260	236	10		
1,913	1,830	2,079	2,342	2,404	2,221	3,052	3,315	2,537
2,118	2,103	2,144	2,473	2,534	2,338	3,560	3,819	2,921
1,167	1,686	2,032	833	833	...	3,250	2,954	2,346
1,880			2,608	2,585	2,658	2,729		
1,053			1,167	1,166	1,168	1,667		
9,055	6,232	2,823	54,905	39,961	14,944	14,851	11,814	3,037
11.3	11.6	10.6	17.0	18.6	13.7	26.5	31.8	16.0
5.91	6.37	5.10	7.26	7.76	6.19	8.67	9.60	6.30
5,152	3,368	1,784	39,924	29,065	10,859	9,033	7,423	1,610
17.4	18.2	16.1	22.9	24.2	19.9	41.4	47.9	25.6
8.22	8.66	7.50	9.25	9.57	8.49	11.64	12.54	8.75
211	(D)	(D)	47	47	...	348	(D)	(D)
11.7	(D)	(D)	7.8	7.8	...	29.0	(D)	(D)
10.05	(D)	(D)	9.40	9.40	...	8.92	(D)	(D)
3,424	(D)	(D)	11,503	8,625	2,878	5,394	(D)	(D)
7.6	(D)	(D)	10.9	12.1	8.5	16.6	(D)	(D)
4.06	(D)	(D)	4.18	4.67	3.19	6.08	(D)	(D)
268	(D)	(D)	3,431	2,224	1,207	76	(D)	(D)
7.1	(D)	(D)	8.1	10.0	6.0	12.7	(D)	(D)
6.70	(D)	(D)	6.92	8.55	5.11	7.60	(D)	(D)
4,712	2,018	2,694	31,264	16,733	14,531	8,686	5,769	2,917
3,339	1,630	1,709	25,124	14,397	10,727	5,761	4,226	1,535
125	388	985	23	23	...	324	1,543	1,382
1,174			4,095	1,391	2,704	2,554		
74			2,022	922	1,100	47		
2,363	564	1,799	12,447	4,416	8,031	5,334	3,335	1,999
1,161	319	842	7,574	2,997	4,577	2,820	2,087	733
72	54	18	6	6	...	242	1,248	1,266
1,124	191	933	3,770	1,096	2,674	2,255		
6	...	6	1,097	317	780	17		
956	554	402	7,616	4,830	2,786	1,654	1,223	431
817	439	378	6,746	4,214	2,532	1,329	995	334
38	115	24	7	7	...	63	4	59
47			255	225	30	246	208	38
54			608	384	224	16	16	...
1,393	900	493	11,201	7,487	3,714	1,698	1,211	487
1,361	872	489	10,804	7,186	3,618	1,612	1,144	468
15	12	3	10	10	...	19	...	19
3	3	...	70	70	...	53	53	...
14	13	1	317	221	96	14	14	...
4,343	4,214	129	23,641	23,228	413	6,165	6,045	120
1,813	1,738	75	14,800	14,668	132	3,272	3,197	75
86	86	...	24	24	...	24	10	14
2,250	2,196	54	7,408	7,234	174	2,840	2,809	31
194	194	...	1,409	1,302	107	29	29	...
31	xxx	xxx	187	xxx	xxx	16	xxx	xxx
120	xxx	xxx	815	xxx	xxx	207	xxx	xxx
73	xxx	xxx	403	xxx	xxx	117	xxx	xxx
50	xxx	xxx	182	xxx	xxx	72	xxx	xxx
2	xxx	xxx	86	xxx	xxx	24	xxx	xxx
21	xxx	xxx	135	xxx	xxx	21	xxx	xxx
47	xxx	xxx	412	xxx	xxx	90	xxx	xxx

Table 5B.—NUMBER, FOOTAGE, AND COST OF DRILLING AND EQUIPPING OIL, GAS, DRY, AND SERVICE

Item	West North Central						
	Total			North Dakota ²	Nebraska		
	All wells	Wells drilled on contract	Wells drilled for own account		All wells	Wells drilled on contract	Wells drilled for own account
1 Number of wells drilled, total ¹⁰	6,019	3,833	2,186	301	411	313	98
2 By rotary tools.....	5,084	(NA)	(NA)	301	397	(NA)	(NA)
3 By cable tools.....	935	(NA)	(NA)	...	14	(NA)	(NA)
4 Oil wells ¹¹	3,153	2,147	1,006	185	202	151	51
5 Gas wells ¹¹	389	329	60	...	19	11	8
6 Dry holes ¹²	2,166	1,163	1,003	116	190	151	39
7 Service wells ¹²	311	194	117	...	...	...	...
8 Footage drilled, total.....1,000 ft..	19,982	13,211	6,771	2,168	2,196	1,680	516
9 By rotary tools.....do....	18,900	(NA)	(NA)	2,168	2,134	(NA)	(NA)
10 By cable tools.....do....	1,082	(NA)	(NA)	...	62	(NA)	(NA)
11 Oil wells.....do....	10,576	7,713	2,863	1,543	1,152	1,680	516
12 Gas wells.....do....	1,172	954	218	...	83		
13 Dry holes.....do....	7,839	4,281	3,558	625	961		
14 Service wells.....do....	395	263	132	...	...	...	...
15 Average footage drilled per well, all wells.....	3,320	3,447	3,097	7,203	5,343	5,367	5,265
16 Oil wells.....	3,354	3,592	2,846	8,341	5,703	5,367	5,265
17 Gas wells.....	3,013	2,900	3,633	...	4,368		
18 Dry holes.....	3,619	3,681	3,547	5,388	5,058		
19 Service wells.....	1,270	1,356	1,128	...	...	...	...
20 Cost of drilling and equipping wells, total ¹³.....\$1,000..	156,600	118,859	37,741	30,089	17,245	13,451	3,794
21 Per well.....do....	26.0	31.0	17.3	100.0	42.0	43.0	38.7
22 Per foot.....do....\$1.....	7.84	9.00	5.57	13.88	7.85	8.01	7.35
23 Oil wells.....do....\$1,000..	104,073	81,653	22,420	22,659	12,652	(D)	(D)
24 Per well.....do....	33.0	38.0	22.3	122.5	62.6	(D)	(D)
25 Per foot.....do....\$1.....	9.84	10.59	7.83	14.69	10.98	(D)	(D)
26 Gas wells.....do....\$1,000..	12,120	10,280	1,840	...	625	(D)	(D)
27 Per well.....do....	31.2	31.2	30.7	...	32.9	(D)	(D)
28 Per foot.....do....\$1.....	10.34	10.78	8.44	...	7.53	(D)	(D)
29 Dry holes.....do....\$1,000..	37,755	24,865	12,890	7,430	3,968	(D)	(D)
30 Per well.....do....	17.4	21.4	12.9	64.1	20.9	(D)	(D)
31 Per foot.....do....\$1.....	4.82	5.80	3.62	11.89	4.13	(D)	(D)
32 Service wells.....do....\$1,000..	2,652	2,061	591	...	...	...	...
33 Per well.....do....	8.5	10.6	5.1	...	...	...	...
34 Per foot.....do....\$1.....	6.71	7.84	4.48	...	...	...	...
35 Cost, excluding amount paid or due contractors, total.....\$1,000..	94,322	58,059	36,263	18,503	10,735	6,993	3,742
36 Oil wells.....do....	68,760	47,126	21,634	14,161	9,190	6,993	3,742
37 Gas wells.....do....	6,097	4,330	1,767	...	422		
38 Dry holes.....do....	18,115	5,818	12,297	4,342	1,123		
39 Service wells.....do....	1,350	785	565	...	...	...	...
40 Cost of drilling, total ¹⁴.....do....	42,104	19,343	22,761	10,970	3,393	1,374	2,019
41 Oil wells.....do....	22,220	12,744	9,476	7,089	2,153	1,374	2,019
42 Gas wells.....do....	3,031	1,923	1,108	...	218		
43 Dry holes.....do....	16,367	4,500	11,867	3,881	1,022		
44 Service wells.....do....	486	176	310	...	...	...	...
45 Cost of casing, total ¹⁵.....do....	21,401	16,394	5,007	4,311	2,188	1,609	579
46 Oil wells.....do....	17,233	13,040	4,193	3,867	1,968	1,609	579
47 Gas wells.....do....	2,207	1,834	373	...	135		
48 Dry holes.....do....	1,585	1,232	353	444	85		
49 Service wells.....do....	376	288	88	...	...	...	...
50 Cost of equipment for flowing and pumping and production derrick, total ¹⁶.....do....	30,817	22,322	8,495	3,222	5,154	4,010	1,144
51 Oil wells.....do....	29,307	21,342	7,965	3,205	5,069	4,010	1,144
52 Gas wells.....do....	859	573	286	...	69		
53 Dry holes.....do....	163	86	77	17	16		
54 Service wells.....do....	488	321	167	...	...	...	...
55 Amount paid or due contractors for drilling and equipping wells, total.....do....	62,278	60,800	1,478	11,586	6,510	6,458	52
56 Oil wells.....do....	35,313	34,527	786	8,498	3,462	3,427	35
57 Gas wells.....do....	6,023	5,950	73	...	203	203	...
58 Dry holes.....do....	19,640	19,047	593	3,088	2,845	2,828	17
59 Service wells.....do....	1,302	1,276	26	...	...	...	...
60 Wells recompleting:							
61 Number.....do....	353	xxx	xxx	1	10	xxx	xxx
62 Cost of recompleting, total.....\$1,000..	1,778	xxx	xxx	(D)	(D)	xxx	xxx
63 Cost, excluding amount paid or due contractors, total.....do....	957	xxx	xxx	(D)	(D)	xxx	xxx
64 Cost of drilling.....do....	446	xxx	xxx	(D)	(D)	xxx	xxx
65 Cost of casing.....do....	187	xxx	xxx	(D)	(D)	xxx	xxx
66 Cost of equipment for flowing and pumping and production derrick.....do....	324	xxx	xxx	(D)	(D)	xxx	xxx
Amount paid or due contractors for re-completing wells.....do....	821	xxx	xxx	...	52	xxx	xxx

See footnotes at end of table.

WELLS IN THE UNITED STATES: 1954 AND 1939; AND FOR GEOGRAPHIC DIVISIONS AND STATES: 1954--Continued

West North Central--Continued				South Atlantic						
Kansas			Iowa, Missouri, and South Dakota ³	Total			West Virginia			
All wells	Wells drilled on contract	Wells drilled for own account		All wells	Wells drilled on contract	Wells drilled for own account	All wells	Wells drilled on contract	Wells drilled for own account	
5,233	3,211	2,022	74	783	482	301	709	413	296	1
4,312	(NA)	(NA)	74	347	(NA)	(NA)	291	(NA)	(NA)	2
921	(NA)	(NA)	...	436	(NA)	(NA)	418	(NA)	(NA)	3
2,741	1,794	947	25	90	47	43	88	45	43	4
370	318	52	...	487	316	171	460	292	168	5
1,834	928	906	26	169	108	61	124	65	59	6
288	171	117	23	37	11	26	37	11	26	7
15,437	9,493	5,944	181	2,432	1,563	869	2,099	1,250	849	8
14,417	(NA)	(NA)	181	1,109	(NA)	(NA)	849	(NA)	(NA)	9
1,020	(NA)	(NA)	...	1,323	(NA)	(NA)	1,250	(NA)	(NA)	10
7,828	9,257	5,812	53	217	125	92	1,602	1,229	92	11
1,089			...	1,510	986	524			707	12
6,152			101	634	431	203			50	13
368			27	71	21	50			50	14
2,950	2,956	2,940	2,446	3,106	3,243	2,887	2,961	3,027	2,868	15
2,856	3,045	3,051	2,120	2,411	2,660	2,140	2,923	3,057	2,140	16
2,943			...	3,101	3,120	3,064			3,115	17
3,354			3,885	3,751	3,991	3,328			1,923	18
1,278			1,174	1,919	1,909	1,923	1,919	1,909	1,923	19
106,482	75,015	31,467	2,784	18,388	13,288	5,100	15,207	10,248	4,959	20
20.3	23.4	15.6	37.6	23.5	27.6	16.9	21.4	24.8	16.8	21
6.90	7.90	5.29	15.38	7.56	8.50	5.87	7.24	8.20	5.84	22
67,656	(D)	(D)	1,106	1,574	1,136	438	(D)	(D)	438	23
24.7	(D)	(D)	44.2	17.5	24.2	10.2	(D)	(D)	10.2	24
8.64	(D)	(D)	20.86	7.25	9.09	4.76	(D)	(D)	4.76	25
11,495	(D)	(D)	...	11,718	8,506	3,212	(D)	(D)	(D)	26
31.1	(D)	(D)	...	24.1	26.9	18.8	(D)	(D)	(D)	27
10.56	(D)	(D)	...	7.76	8.63	6.13	(D)	(D)	(D)	28
25,158	(D)	(D)	1,199	4,681	3,508	1,173	3,118	(D)	(D)	29
13.7	(D)	(D)	46.1	27.7	32.5	19.2	25.1	(D)	(D)	30
4.09	(D)	(D)	11.87	7.38	8.14	5.78	7.32	(D)	(D)	31
2,173	1,582	591	479	415	138	277	415	138	277	32
7.5	9.3	5.1	20.8	11.2	12.5	10.7	11.2	12.5	10.7	33
5.90	6.70	4.48	17.74	5.85	6.57	5.54	5.85	6.57	5.54	34
64,402	34,361	30,041	682	9,551	4,650	4,901	8,532	3,771	4,761	35
44,945	33,609	29,476	464	959	521	438	6,578	3,731	438	36
5,675			...	6,313	3,158	3,155			4,060	37
12,465			185	1,976	931	1,045			263	38
1,317			33	303	40	263			3,470	39
27,484	8,942	18,542	257	4,773	1,190	3,583	4,290	820	248	40
12,896	8,766	18,232	82	418	170	248	2,964	820	3,036	41
2,813			...	2,797	663	2,134			186	42
11,289			175	1,372	357	1,015			(D)	43
486			...	186	...	186			(D)	44
14,790	10,569	4,221	112	4,065	2,998	1,067	3,606	(D)	(D)	45
11,306	10,293	4,133	92	357	220	137	3,017	(D)	137	46
2,072			...	3,029	2,186	843			30	47
1,048			8	598	568	30			478	48
364			12	81	24	57			24	49
22,128	14,850	7,278	313	713	462	251	636	(D)	(D)	50
20,743	14,550	7,111	290	184	131	53	597	(D)	53	51
790			...	487	309	178			(D)	52
128			2	6	6	...			...	53
467			21	36	16	20			20	54
42,080	40,654	1,426	2,102	8,837	8,638	199	6,675	6,477	198	55
22,711	21,960	751	642	615	615	...	5,096	5,039	...	56
5,820	5,747	73	...	5,405	5,348	57			57	57
12,693	12,117	576	1,014	2,705	2,577	128			127	58
856	830	26	446	112	98	14			14	59
342	xxx	xxx	...	19	xxx	xxx	19	xxx	xxx	60
1,491	xxx	xxx	...	122	xxx	xxx	122	xxx	xxx	61
722	xxx	xxx	...	122	xxx	xxx	122	xxx	xxx	62
312	xxx	xxx	...	85	xxx	xxx	85	xxx	xxx	63
148	xxx	xxx	...	29	xxx	xxx	29	xxx	xxx	64
262	xxx	xxx	...	8	xxx	xxx	8	xxx	xxx	65
769	xxx	xxx	...	...	xxx	xxx	...	xxx	xxx	66

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 5B.—NUMBER, FOOTAGE, AND COST OF DRILLING AND EQUIPPING OIL, GAS, DRY, AND SERVICE

Item	South Atlantic—Continued			East South Central		
	Maryland, Virginia, Georgia, and Florida ⁴			Total		
	All wells	Wells drilled on contract	Wells drilled for own account	All wells	Wells drilled on contract	Wells drilled for own account
1 Number of wells drilled, total ¹⁰	74	69	5	2,066	1,479	587
2 By rotary tools.....	56	(NA)	(NA)	1,062	(NA)	(NA)
3 By cable tools.....	18	(NA)	(NA)	1,004	(NA)	(NA)
4 Oil wells ¹¹	2	2	...	867	584	283
5 Gas wells ¹¹	27	24	3	201	166	35
6 Dry holes ¹²	45	43	2	670	452	218
7 Service wells ¹².....	...	...	...	328	277	51
8 Footage drilled, total.....1,000 ft..	333	313	20	5,728	4,166	1,562
9 By rotary tools.....do...	260	(NA)	(NA)	4,318	(NA)	(NA)
10 By cable tools.....do...	73	(NA)	(NA)	1,410	(NA)	(NA)
11 Oil wells.....do...	125	313	...	2,146	1,610	536
12 Gas wells.....do...	...	...	...	763	...	...
13 Dry holes.....do...	208	...	20	2,478	2,556	1,026
14 Service wells.....do...	...	...	...	341	...	...
15 Average footage drilled per well, all wells.....	4,500	4,536	4,000	2,772	2,817	2,660
16 Oil wells.....	4,310	4,536	...	2,475	2,757	1,894
17 Gas wells.....	4,622	...	4,000	3,796	...	...
18 Dry holes.....	...	...	...	3,671	2,856	3,375
19 Service wells.....	...	...	...	1,028	...	...
20 Cost of drilling and equipping wells, total ¹³.....\$1,000..	3,181	3,040	141	46,200	37,465	8,735
21 Per well.....do...	43.0	44.1	28.2	22.4	25.3	14.9
22 Per foot.....do...	9.55	9.71	7.05	8.07	8.99	5.59
23 Oil wells.....\$1,000..	(D)	(D)	...	23,035	19,474	3,561
24 Per well.....do...	(D)	(D)	...	26.6	33.3	12.6
25 Per foot.....do...	(D)	(D)	...	10.73	12.10	6.64
26 Gas wells.....\$1,000..	(D)	(D)	(D)	7,876	(D)	(D)
27 Per well.....do...	(D)	(D)	(D)	39.2	(D)	(D)
28 Per foot.....do...	(D)	(D)	(D)	10.32	(D)	(D)
29 Dry holes.....\$1,000..	1,563	(D)	(D)	13,369	(D)	(D)
30 Per well.....do...	34.7	(D)	(D)	20.0	(D)	(D)
31 Per foot.....do...	7.51	(D)	(D)	5.40	(D)	(D)
32 Service wells.....\$1,000..	...	...	...	1,920	(D)	(D)
33 Per well.....do...	...	...	...	5.9	(D)	(D)
34 Per foot.....do...	...	...	...	5.63	(D)	(D)
35 Cost, excluding amount paid or due contractors, total.....\$1,000..	1,019	879	140	24,519	16,175	8,344
36 Oil wells.....do...	694	879	...	13,628	10,147	3,481
37 Gas wells.....do...	325	...	140	4,713	...	...
38 Dry holes.....do...	...	...	...	5,274	6,028	4,863
39 Service wells.....do...	483	...	...	904	...	...
40 Cost of drilling, total ¹⁴.....do...	483	370	173	11,414	5,809	5,605
41 Oil wells.....do...	251	370	...	4,374	2,882	1,492
42 Gas wells.....do...	232	...	113	2,198	...	...
43 Dry holes.....do...	...	...	...	4,592	2,927	4,113
44 Service wells.....do...	459	(D)	(D)	250	...	...
45 Cost of casing, total ¹⁵.....do...	459	(D)	(D)	7,389	5,887	1,502
46 Oil wells.....do...	369	(D)	(D)	4,621	3,633	988
47 Gas wells.....do...	90	(D)	(D)	1,806	...	...
48 Dry holes.....do...	...	90	...	607	2,254	514
49 Service wells.....do...	...	...	...	355	...	...
50 Cost of equipment for flowing and pumping and production derrick, total ¹⁶.....do...	77	(D)	(D)	5,716	4,479	1,237
51 Oil wells.....do...	74	(D)	...	4,633	3,632	1,001
52 Gas wells.....do...	3	(D)	(D)	709	563	146
53 Dry holes.....do...	...	3	...	75	37	38
54 Service wells.....do...	...	...	...	299	247	52
55 Amount paid or due contractors for drilling and equipping wells, total.....do...	2,162	2,161	1	21,681	21,290	391
56 Oil wells.....do...	924	924	...	9,407	9,327	80
57 Gas wells.....do...	1,238	...	...	3,163	3,163	...
58 Dry holes.....do...	...	1,237	1	8,095	7,806	289
59 Service wells.....do...	...	...	...	1,016	994	22
60 Wells recompleted:						
61 Number.....	...	xxx	xxx	246	xxx	xxx
62 Cost of recompleting, total.....\$1,000..	...	xxx	xxx	1,071	xxx	xxx
63 Cost, excluding amount paid or due contractors, total.....do...	...	xxx	xxx	690	xxx	xxx
64 Cost of drilling.....do...	...	xxx	xxx	438	xxx	xxx
65 Cost of casing.....do...	...	xxx	xxx	87	xxx	xxx
66 Cost of equipment for flowing and pumping and production derrick.....do...	...	xxx	xxx	165	xxx	xxx
Amount paid or due contractors for re-completing wells.....do...	...	xxx	xxx	381	xxx	xxx

See footnotes at end of table.

WELLS IN THE UNITED STATES: 1954 AND 1939; AND FOR GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

East South Central—Continued					West South Central						
Kentucky			Missis- sippi ⁵	Tennessee and Alabama ⁶	Total			Arkansas			
All wells	Wells drilled on contract	Wells drilled for own account			All wells	Wells drilled on contract	Wells drilled for own contract	All wells	Wells drilled on contract	Wells drilled for own account	
1,622	1,165	457	402	42	29,988	22,572	7,416	524	382	142	1
640	(NA)	(NA)	402	20	27,303	(NA)	(NA)	516	(NA)	(NA)	2
982	(NA)	(NA)	...	22	2,685	(NA)	(NA)	8	(NA)	(NA)	3
718	469	249	147	2	17,830	13,626	4,204	268	198	70	4
172	144	28	28	1	1,738	1,351	387	13	9	4	5
407	276	131	224	39	8,949	6,526	2,423	236	169	67	6
325	276	49	3	...	1,471	1,069	402	7	6	1	7
2,641	1,949	692	2,903	184	133,221	101,892	31,329	2,167	1,747	420	8
1,250	(NA)	(NA)	2,903	165	129,856	(NA)	(NA)	2,138	(NA)	(NA)	9
1,391	(NA)	(NA)	...	19	3,365	(NA)	(NA)	29	(NA)	(NA)	10
994	687	307	2,894	184	78,274	60,339	17,935	1,170	973	197	11
520	440	80		...	10,959	8,251	2,708	60	774	223	12
795	526	269		...	42,117	31,792	10,325	920		...	13
332	296	36		...	1,871	1,510	361	17		...	14
1,628	1,673	1,514	7,221	4,381	4,442	4,514	4,225	4,135	4,573	2,958	15
1,384	1,465	1,233	7,253	4,381	4,390	4,428	4,266	4,366	4,914	2,814	16
3,023	3,056	2,857		...	6,306	6,107	6,997	4,615	4,207	3,097	17
1,953	1,906	2,053		...	4,706	4,872	4,261	3,898		...	18
1,022	1,072	735		...	1,272	1,413	898	2,429		...	19
18,151	14,372	3,779	26,755	1,294	1,499,727	1,159,314	340,413	15,098	12,865	2,233	20
11.2	12.3	8.3	66.6	30.8	50.0	51.4	45.9	28.8	33.7	15.7	21
6.87	7.37	5.46	9.22	7.03	11.26	11.38	10.87	6.97	7.36	5.32	22
8,903	6,611	2,292	(D)	(D)	950,174	739,945	210,229	8,710	7,223	1,487	23
12.4	14.1	9.2	(D)	(D)	53.3	54.3	50.0	32.5	36.5	21.2	24
8.96	9.62	7.47	(D)	(D)	12.14	12.26	11.72	7.44	7.42	7.55	25
4,297	3,621	676	(D)	(D)	182,164	132,864	49,300	610	(D)	(D)	26
25.0	25.1	24.1	(D)	(D)	104.8	98.3	127.4	46.9	(D)	(D)	27
8.26	8.23	8.45	(D)	(D)	16.62	16.10	18.21	10.17	(D)	(D)	28
3,183	2,468	715	(D)	(D)	354,934	276,007	78,927	5,658	(D)	(D)	29
7.8	8.9	5.5	(D)	(D)	39.7	42.3	32.6	24.0	(D)	(D)	30
4.00	4.69	2.66	(D)	(D)	8.43	8.68	7.64	6.15	(D)	(D)	31
1,768	1,672	96	152	...	12,455	10,498	1,957	120	(D)	(D)	32
5.4	6.1	2.0	50.7	...	8.5	9.8	4.9	17.1	(D)	(D)	33
5.33	5.65	2.67	16.89	...	6.66	6.95	5.42	7.06	(D)	(D)	34
9,765	6,032	3,733	14,077	677	862,684	543,517	319,167	7,338	5,162	2,176	35
5,542	3,288	2,254	13,958	677	578,011	381,264	196,747	5,211	3,738	1,473	36
2,405	1,729	676		...	114,511	67,503	47,008	374	1,424	703	37
1,033	326	707		...	163,516	89,870	73,646	1,693		...	38
785	689	96		...	6,646	4,880	1,766	60		...	39
3,603	1,582	2,021	7,211	600	474,591	248,102	226,489	3,115	1,965	1,150	40
1,486	621	865	7,163	600	265,100	142,605	122,495	1,409	881	528	41
1,042	576	466		...	67,573	32,900	34,673	230	1,084	622	42
873	237	636		...	138,758	70,558	68,200	1,465		...	43
202	148	54		...	3,160	2,039	1,121	11		...	44
3,256	2,440	816	(D)	(D)	230,773	173,610	57,163	1,794	1,452	342	45
1,690	1,085	605	(D)	(D)	175,238	131,600	43,638	1,496	1,199	297	46
1,112	958	154	694	...	31,219	22,829	8,390	86	253	45	47
117	84	33	(D)	(D)	22,226	17,477	4,749	195		...	48
337	313	24	18	...	2,090	1,704	386	17		...	49
2,906	2,010	896	(D)	(D)	157,320	121,805	35,515	2,429	1,745	684	50
2,366	1,582	784	(D)	(D)	137,673	107,059	30,614	2,306	1,658	648	51
251	195	56	458	...	15,719	11,774	3,945	58	87	36	52
43	5	38	32	...	2,532	1,835	697	33		...	53
246	228	18	53	...	1,396	1,137	259	32		...	54
8,386	8,340	46	12,678	617	637,043	615,797	21,246	7,760	7,703	57	55
3,361	3,323	38	12,645	617	372,163	358,681	13,482	3,499	3,485	14	56
1,892	1,892	...		...	67,653	65,361	2,292	236	...	...	57
2,150	2,142	8		...	191,418	186,137	5,281	3,965	3,922	43	58
983	983	...		...	5,809	5,618	191	60	60	...	59
209	xxx	xxx	37	...	2,154	xxx	xxx	21	xxx	xxx	60
559	xxx	xxx	512	...	28,465	xxx	xxx	174	xxx	xxx	61
386	xxx	xxx	304	...	15,540	xxx	xxx	85	xxx	xxx	62
239	xxx	xxx	199	...	11,657	xxx	xxx	19	xxx	xxx	63
73	xxx	xxx	14	...	1,193	xxx	xxx	40	xxx	xxx	64
74	xxx	xxx	91	...	2,690	xxx	xxx	26	xxx	xxx	65
173	xxx	xxx	208	...	12,925	xxx	xxx	89	xxx	xxx	66

Table 5B.—NUMBER, FOOTAGE, AND COST OF DRILLING AND EQUIPPING OIL, GAS, DRY, AND SERVICE

Item		West South Central--Continued					
		Louisiana ¹			Oklahoma		
		All wells	Wells drilled on contract	Wells drilled for own account	All wells	Wells drilled on contract	Wells drilled for own account
1	Number of wells drilled, total ¹⁰	3,146	2,525	621	8,453	6,234	2,219
2	By rotary tools.....	3,138	(NA)	(NA)	6,504	(NA)	(NA)
3	By cable tools.....	8	(NA)	(NA)	1,949	(NA)	(NA)
4	Oil wells ¹¹	2,000	1,616	384	5,115	3,831	1,284
5	Gas wells ¹¹	389	320	69	356	289	67
6	Dry holes ¹²	749	582	167	1,935	1,396	539
7	Service wells ¹²	8	7	1	1,047	718	329
8	Footage drilled, total.....1,000 ft..	22,844	17,329	5,515	25,644	19,818	5,826
9	By rotary tools.....do....	22,819	(NA)	(NA)	23,538	(NA)	(NA)
10	By cable tools.....do....	25	(NA)	(NA)	2,106	(NA)	(NA)
11	Oil wells.....do....	12,779	9,524	3,255	16,314	12,716	3,598
12	Gas wells.....do....	3,601			1,501	1,228	273
13	Dry holes.....do....	6,428	7,805	2,260	6,694	4,940	1,754
14	Service wells.....do....	36			1,135	934	201
15	Average footage drilled per well, all wells.....	7,261	6,863	8,881	3,034	3,179	2,626
16	Oil wells.....	6,390	5,894	8,477	3,189	3,319	2,802
17	Gas wells.....	9,257			4,216	4,249	4,075
18	Dry holes.....	8,582	8,586	9,536	3,459	3,539	3,254
19	Service wells.....	4,500			1,084	1,301	611
20	Cost of drilling and equipping wells, total ¹³.....\$1,000..	404,559	288,175	116,384	241,742	200,080	41,662
21	Per well.....do....	128.6	114.1	187.4	28.6	32.1	18.8
22	Per foot.....\$1....	17.71	16.63	21.10	9.43	10.10	7.15
23	Oil wells.....\$1,000..	217,225	152,202	65,023	173,786	143,715	30,071
24	Per well.....do....	108.6	194.2	169.3	34.0	37.5	23.4
25	Per foot.....\$1....	17.00	15.98	19.98	10.65	11.30	8.36
26	Gas wells.....\$1,000..	83,800	(D)	(D)	17,816	15,496	2,320
27	Per well.....do....	215.4	(D)	(D)	50.0	53.6	34.6
28	Per foot.....\$1....	23.27	(D)	(D)	11.87	12.62	8.50
29	Dry holes.....\$1,000..	102,851	(D)	(D)	44,674	36,064	8,610
30	Per well.....do....	137.3	(D)	(D)	23.1	25.8	16.0
31	Per foot.....\$1....	16.00	(D)	(D)	6.67	7.30	4.91
32	Service wells.....\$1,000..	683	(D)	(D)	5,466	4,805	661
33	Per well.....do....	85.4	(D)	(D)	5.2	6.7	2.0
34	Per foot.....\$1....	18.97	(D)	(D)	4.82	5.14	3.29
35	Cost, excluding amount paid or due contractors, total.....\$1,000..	256,830	149,017	107,813	133,509	92,485	41,024
36	Oil wells.....do....	142,126	82,850	59,276	103,142	73,448	29,694
37	Gas wells.....do....	55,619			9,397	7,116	2,281
38	Dry holes.....do....	58,650	66,167	48,537	18,207	9,794	8,413
39	Service wells.....do....	435			2,763	2,127	636
40	Cost of drilling, total ¹⁴.....do....	163,800	82,111	81,689	65,536	38,987	26,549
41	Oil wells.....do....	78,514	38,257	40,257	43,717	26,878	16,839
42	Gas wells.....do....	35,124			4,423	3,033	1,390
43	Dry holes.....do....	49,926	43,854	41,432	16,007	8,081	7,926
44	Service wells.....do....	236			1,389	995	394
45	Cost of casing, total ¹⁵.....do....	62,184	43,617	18,567	34,445	27,335	7,110
46	Oil wells.....do....	40,161	27,053	13,108	28,698	22,563	6,135
47	Gas wells.....do....	13,882			3,131	2,601	530
48	Dry holes.....do....	8,052	16,564	5,459	1,789	1,430	359
49	Service wells.....do....	89			827	741	86
50	Cost of equipment for flowing and pumping and production derrick, total ¹⁶.....do....	30,846	23,289	7,557	33,528	26,163	7,365
51	Oil wells.....do....	23,451	17,540	5,911	30,727	24,007	6,720
52	Gas wells.....do....	6,613			1,843	1,482	361
53	Dry holes.....do....	672	5,749	1,646	411	283	128
54	Service wells.....do....	110			547	391	156
55	Amount paid or due contractors for drilling and equipping wells, total.....do....	147,729	139,158	8,571	108,233	107,595	638
56	Oil wells.....do....	75,099	69,352	5,747	70,644	70,267	377
57	Gas wells.....do....	28,181	27,276	905	8,419	8,380	39
58	Dry holes.....do....	44,201	42,282	1,919	26,467	26,270	197
59	Service wells.....do....	248	248	...	2,703	2,678	25
60	Wells recompleted:						
61	Number.....	350	xxx	xxx	502	xxx	xxx
62	Cost of recompleting, total.....\$1,000..	8,645	xxx	xxx	3,584	xxx	xxx
63	Cost, excluding amount paid or due contractors, total.....do....	5,331	xxx	xxx	1,858	xxx	xxx
64	Cost of drilling.....do....	4,461	xxx	xxx	1,227	xxx	xxx
65	Cost of casing.....do....	202	xxx	xxx	159	xxx	xxx
66	Cost of equipment for flowing and pumping and production derrick.....do....	668	xxx	xxx	472	xxx	xxx
66	Amount paid or due contractors for recompleting wells.....do....	3,314	xxx	xxx	1,726	xxx	xxx

See footnotes at end of table.

WELLS IN THE UNITED STATES: 1954 AND 1939; AND FOR GEOGRAPHIC DIVISIONS AND STATES: 1954--Continued

West South Central--Continued			Mountain							
	Texas ¹		Total				Wyoming			
All wells	Wells drilled on contract	Wells drilled for own account	All wells	Wells drilled on contract	Wells drilled for own account	Montana ⁷	All wells	Wells drilled on contract	Wells drilled for own account	
17,865	13,431	4,434	4,058	3,226	832	359	1,153	903	250	1
17,145	(NA)	(NA)	3,864	(NA)	(NA)	294	1,142	(NA)	(NA)	2
720	(NA)	(NA)	194	(NA)	(NA)	65	11	(NA)	(NA)	3
10,447	7,981	2,466	2,033	1,682	351	165	807	618	189	4
980	733	247	473	326	147	28	17	14	3	5
6,029	4,379	1,650	1,536	1,202	334	163	321	263	58	6
409	338	71	16	16	...	3	8	8	...	7
82,566	62,998	19,568	21,381	17,152	4,229	1,496	6,256	4,840	1,416	8
81,361	(NA)	(NA)	20,971	(NA)	(NA)	1,379	6,236	(NA)	(NA)	9
1,205	(NA)	(NA)	410	(NA)	(NA)	117	20	(NA)	(NA)	10
48,011	37,126	10,885	11,149	9,231	1,918	707	4,462	3,382	1,080	11
5,797	4,143	1,654	2,043	1,379	664	55	98			12
28,075	21,192	6,883	8,143	6,496	1,647	734	1,696	1,458	336	13
683	537	146	46	46	...				...	14
4,622	4,690	4,413	5,269	5,317	5,083	4,167	5,426	5,360	5,664	15
4,596	4,652	4,414	5,484	5,488	5,464	4,285	5,529	5,472	5,714	16
5,915	5,652	6,696	4,319	4,230	4,517	1,964	5,765			17
4,657	4,839	4,172	5,301	5,404	4,931			5,116	5,508	18
1,670	1,589	2,056	2,875	2,875	...	4,422	5,155		...	19
838,328	658,194	180,134	265,477	218,855	46,622	22,448	82,313	66,985	15,328	20
46.9	49.0	40.6	65.4	67.8	56.0	62.5	71.4	74.2	61.3	21
10.15	10.45	9.21	12.42	12.76	11.02	15.01	13.16	13.84	10.82	22
550,453	436,805	113,648	148,671	125,444	23,227	12,217	56,394	44,878	11,516	23
52.7	54.7	46.1	73.1	74.6	66.2	74.0	69.9	72.6	60.9	24
11.47	11.77	10.44	13.33	13.59	12.11	17.28	12.64	13.27	10.66	25
79,938	55,366	24,572	32,419	22,781	9,638	521	2,445	(D)	(D)	26
81.6	75.5	99.5	68.5	69.9	65.6	18.6	143.8	(D)	(D)	27
13.79	13.36	14.86	15.87	16.52	14.52	9.47	24.95	(D)	(D)	28
201,751	160,916	40,835	83,451	69,694	13,757	(D)	(D)	(D)	(D)	29
33.5	36.7	24.7	54.3	58.0	41.2	(D)	(D)	(D)	(D)	30
7.19	7.59	5.93	10.25	10.73	8.35	(D)	(D)	(D)	(D)	31
6,186	5,107	1,079	936	936	...	(D)	(D)	(D)	...	32
15.1	15.1	15.2	58.5	58.5	...	(D)	(D)	(D)	...	33
9.06	9.51	7.39	20.35	20.35	...	(D)	(D)	(D)	...	34
465,007	296,853	168,154	133,914	91,577	42,337	9,036	43,884	29,709	14,175	35
327,532	221,228	106,304	82,703	60,713	21,990	5,262	33,701	22,788	10,913	36
49,121	25,897	23,224	17,826	9,732	8,094	317	1,251		3,262	37
84,966	47,253	37,713	33,064	20,811	12,253		8,932	6,921	...	38
3,388	2,475	913	321	321	...	3,457			...	39
242,140	125,039	117,101	73,699	43,482	30,217	5,645	23,046	14,195	8,851	40
141,460	76,589	64,871	33,193	20,160	13,033	2,377	14,166	8,325	5,841	41
27,796	11,210	16,586	10,949	5,438	5,511	203	916		3,010	42
71,360	36,304	35,056	29,390	17,717	11,673		7,964	5,870	...	43
1,524	936	588	167	167	...	3,065			...	44
132,350	101,206	31,144	32,766	26,145	6,621	1,601	9,645	7,325	2,320	45
104,883	80,785	24,098	24,538	20,330	4,208	1,175	8,606	6,490	2,116	46
14,120	9,557	4,563	4,794	2,897	1,897	81	248		204	47
12,190	9,968	2,222	3,340	2,824	516		791	835	...	48
1,157	896	261	94	94	...	345			...	49
90,517	70,608	19,909	27,449	21,950	5,499	1,790	11,193	8,189	3,004	50
81,189	63,854	17,335	24,972	20,223	4,749	1,710	10,929	7,973	2,956	51
7,205	5,130	2,075	2,083	1,397	686	33	87		48	52
1,416	981	435	334	270	64			216	...	53
707	643	64	60	60	...	47	177		...	54
373,321	361,341	11,980	131,563	127,278	4,285	13,412	38,429	37,276	1,153	55
222,921	215,577	7,344	65,968	64,731	1,237	6,955	22,693	22,090	603	56
30,817	29,469	1,348	14,593	13,049	1,544	204	1,194		550	57
116,785	113,663	3,122	50,387	48,883	1,504			15,186	...	58
2,798	2,632	166	615	615	...	6,253	14,542		...	59
1,281	xxx	xxx	273	xxx	xxx	13	29	xxx	xxx	60
16,062	xxx	xxx	3,698	xxx	xxx	82	964	xxx	xxx	61
8,266	xxx	xxx	2,256	xxx	xxx	64	472	xxx	xxx	62
5,950	xxx	xxx	1,665	xxx	xxx	54	397	xxx	xxx	63
792	xxx	xxx	157	xxx	xxx	...	47	xxx	xxx	64
1,524	xxx	xxx	434	xxx	xxx	10	28	xxx	xxx	65
7,796	xxx	xxx	1,442	xxx	xxx	18	492	xxx	xxx	66

Table 5B.--NUMBER, FOOTAGE, AND COST OF DRILLING AND EQUIPPING OIL, GAS, DRY, AND SERVICE

Item	Mountain—Continued		
	Colorado		
	All wells	Wells drilled on contract	Wells drilled for own account
1 Number of wells drilled, total ¹⁰	1,327	1,076	251
2 By rotary tools.....	1,297	(NA)	(NA)
3 By cable tools.....	30	(NA)	(NA)
4 Oil wells ¹¹	487	422	65
5 Gas wells ¹¹	67	52	15
6 Dry holes ¹²	772	601	171
7 Service wells ¹²	1	1	...
8 Footage drilled, total.....1,000 ft..	7,059	5,744	1,315
9 By rotary tools.....do....	7,005	(NA)	(NA)
10 By cable tools.....do....	54	(NA)	(NA)
11 Oil wells.....do....	2,598	2,269	329
12 Gas wells.....do....	359		
13 Dry holes.....do....		3,475	986
14 Service wells.....do....	4,102		...
15 Average footage drilled per well, all wells.....	5,320	5,338	5,239
16 Oil wells.....do....	5,335	5,377	5,062
17 Gas wells.....do....	5,358		
18 Dry holes.....do....		5,313	5,301
19 Service wells.....do....	5,307		...
20 Cost of drilling and equipping wells, total ¹³.....\$1,000..	49,318	42,301	7,017
21 Per well.....do....	37.2	39.3	28.0
22 Per foot.....do....	6.99	7.36	5.34
23 Oil wells.....do....\$1,000..	24,482	21,788	2,694
24 Per well.....do....	50.3	51.6	41.4
25 Per foot.....do....	9.42	9.60	8.19
26 Gas wells.....do....\$1,000..	4,467	(D)	(D)
27 Per well.....do....	66.7	(D)	(D)
28 Per foot.....do....	12.44	(D)	(D)
29 Dry holes.....do....\$1,000..	(D)	(D)	(D)
30 Per well.....do....	(D)	(D)	(D)
31 Per foot.....do....	(D)	(D)	(D)
32 Service wells.....do....\$1,000..	(D)	(D)	...
33 Per well.....do....	(D)	(D)	...
34 Per foot.....do....	(D)	(D)	...
35 Cost, excluding amount paid or due contractors, total.....\$1,000..	23,461	16,981	6,480
36 Oil wells.....do....	14,188	11,718	2,470
37 Gas wells.....do....	2,419		
38 Dry holes.....do....		5,263	4,010
39 Service wells.....do....	6,854		...
40 Cost of drilling, total ¹⁴.....do....	10,802	6,099	4,703
41 Oil wells.....do....	3,236	2,265	971
42 Gas wells.....do....	1,272	814	458
43 Dry holes.....do....	6,294	3,020	3,274
44 Service wells.....do....	...	...	...
45 Cost of casing, total ¹⁵.....do....	6,017	5,129	888
46 Oil wells.....do....	4,760	4,062	698
47 Gas wells.....do....	730		
48 Dry holes.....do....		1,067	190
49 Service wells.....do....	527		...
50 Cost of equipment for flowing and pumping and production derrick, total ¹⁶.....do....	6,642	5,753	889
51 Oil wells.....do....	6,192	5,391	801
52 Gas wells.....do....	417		
53 Dry holes.....do....		362	88
54 Service wells.....do....	33		...
55 Amount paid or due contractors for drilling and equipping wells, total.....do....	25,857	25,320	537
56 Oil wells.....do....	10,294	10,070	224
57 Gas wells.....do....	2,048		
58 Dry holes.....do....		15,250	313
59 Service wells.....do....	13,515		...
60 Wells recompleting:			
61 Number.....	77	xxx	xxx
62 Cost of recompleting, total.....\$1,000..	621	xxx	xxx
63 Cost, excluding amount paid or due contractors, total.....do....	419	xxx	xxx
64 Cost of drilling.....do....	340	xxx	xxx
65 Cost of casing.....do....	7	xxx	xxx
66 Cost of equipment for flowing and pumping and production derrick.....do....	72	xxx	xxx
Amount paid or due contractors for recompleting wells.....do....	202	xxx	xxx

NA Not available. xxx Not applicable.

D Withheld to avoid approximately disclosing data for individual companies. ¹Includes the number, footage, and costs for offshore wells for which statistics are shown separately in Table 5D. ²Represents 237 wells drilled on contract and 64 wells drilled for own account. ³Represents 24 wells drilled on contract and 1 well drilled for own account in Iowa; 25 wells drilled on contract and 1 well drilled for own account in Missouri; and 23 wells drilled on contract in South Dakota. ⁴Represents 3 wells drilled on contract and 4 wells drilled for own account in Maryland; 23 wells drilled on contract and 1 well drilled for own account in Virginia; 14 wells drilled on contract in Georgia; and 29 wells drilled on contract in Florida. ⁵Represents 284 wells drilled on contract and 118 wells drilled for own account. ⁶Represents 12 wells drilled on contract and 1 well drilled for own account in Tennessee; and 18 wells drilled on contract and 11 wells drilled for own account in Alabama. ⁷Represents 272 wells drilled on contract and 87 wells drilled for own account. ⁸Represents 1 well drilled for own account in Idaho; 3 wells drilled on contract and 1 well drilled for own account in Arizona; 51 wells drilled on contract and 33 wells drilled for own account in Utah; and 12 wells drilled on contract and 2 wells drilled for own account in Nevada. ⁹Represents 1,825 wells drilled on contract and 540 wells drilled for own account in California; 5 wells drilled for own account in Washington; and 1 well drilled on contract in Oregon. ¹⁰Represents wells drilled which were completed during 1954, wells completed in 1954 although begun in 1953, and wells drilled and abandoned before completion during 1954. ¹¹For wells that produced both oil and gas, respondents were requested to classify the wells according to the more valuable total product. They were requested to classify "distillate" wells as oil wells if the value of all liquids produced was greater than the value of gas produced; but otherwise to classify them as gas wells.

WELLS IN THE UNITED STATES: 1954 AND 1939; AND FOR GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

Mountain—Continued				Pacific (California, ¹ Washington, and Oregon) ⁹		
New Mexico			Idaho, Arizona, Utah, and Nevada ⁸			
All wells	Wells drilled on contract	Wells drilled for own account		All wells	Wells drilled on contract	Wells drilled for own account
1,116	909	207	103	2,371	(NA)	545
1,033	(NA)		98	2,363	(NA)	(NA)
83	(NA)		5	8	xxx	(NA)
560	493	67	14	1,687	1,239	448
355	247	108	6	49	48	1
197	165	32	83	609	525	84
4	4	...	...	26	14	12
6,090	4,988	1,102	480	11,427	8,724	2,703
5,880	(NA)	(NA)	471	11,420	(NA)	(NA)
210	(NA)	(NA)	9	7	(NA)	(NA)
3,320	2,929	391	62	8,046	5,802	2,244
1,507	984	523	24	217		
1,252	1,064	188	394	3,090	2,922	459
11	11	...	...	74		
5,457	5,487	5,324	4,660	4,819	4,778	4,960
5,929	5,941	5,836	4,429	4,769	4,683	5,009
4,245	3,984	4,843	4,429	4,000		
6,355	6,448	5,875	4,747	5,074	4,978	4,732
2,750	2,750	...	...	2,846		
97,910	80,416	17,494	13,488	207,011	158,831	48,180
87.7	88.5	84.5	131.0	87.3	87.0	88.4
16.08	16.12	15.87	28.10	18.12	18.21	17.82
53,768	46,663	7,105	1,810	158,844	118,694	40,150
96.0	94.7	106.0	129.3	94.2	95.8	89.6
16.20	15.93	18.17	29.19	19.74	20.46	17.89
24,034	16,476	7,558	952	3,104	(D)	(D)
67.7	66.7	70.0	158.7	63.3	(D)	(D)
15.95	16.74	14.45	39.67	14.30	(D)	(D)
19,970	17,139	2,831	10,726	43,785	(D)	(D)
101.4	103.9	88.5	129.2	71.9	(D)	(D)
15.95	16.11	15.06	27.22	14.17	(D)	(D)
138	138	...	...	1,278	(D)	(D)
34.5	34.5	...	...	49.2	(D)	(D)
12.55	12.55	...	...	17.27	(D)	(D)
50,331	34,922	15,409	7,202	120,895	77,350	43,545
28,422	21,558	6,864	1,130	98,783	62,443	36,340
13,028	6,863	6,165	811	1,505		
8,853	6,473	2,380	5,261	19,807	14,907	7,205
28	28	...	...	800		
27,988	16,726	11,262	6,218	68,649	38,327	30,322
12,743	7,647	5,096	671	49,139	25,697	23,442
7,868	3,820	4,048	690	718		
7,365	5,247	2,118	4,857	18,315	12,630	6,880
12	12	...	...	477		
14,881	11,894	2,987	622	32,126	23,475	8,651
9,815	8,678	1,137	182	30,148	21,754	8,394
3,665	2,062	1,603	70	493		
1,390	1,143	247	370	1,283	1,721	257
11	11	...	...	202		
7,462	6,302	1,160	362	20,120	15,548	4,572
5,864	5,233	631	277	19,496	14,992	4,504
1,495	981	514	51	294	294	...
98	83	15	34	209	173	36
5	5	...	...	121	89	32
47,579	45,494	2,085	6,286	86,116	81,481	4,635
25,346	25,105	241	680	60,061	56,251	3,810
11,006	9,613	1,393	141	1,599	1,599	...
11,117	10,666	451	5,465	23,978	23,262	716
110	110	...	...	478	369	109
149	xxx	xxx	5	285	xxx	xxx
2,029	xxx	xxx	2	10,848	xxx	xxx
1,301	xxx	xxx	...	6,775	xxx	xxx
874	xxx	xxx	...	5,042	xxx	xxx
103	xxx	xxx	...	851	xxx	xxx
324	xxx	xxx	...	882	xxx	xxx
728	xxx	xxx	2	4,073	xxx	xxx

¹²Dry holes represent wells drilled and abandoned without commercial production during 1954. Service wells include gas-injection, water-injection, brine-disposal, and underground-storage wells. The distinction between dry holes and service wells was not made uniformly by all respondents; hence the combined figures for dry holes and service wells in a State are somewhat more significant than the separate figures for each class. ¹³Represents only the tangible costs specified below; respondents were asked to exclude taxes, interest on investment, overhead costs, etc. ¹⁴Represents the cost of labor, supplies, water, fuel, and power used in such operations as: moving on to location all equipment and supplies incidental to operations; excavating for and building derrick foundation; digging slush pits; erecting and wiring derricks; building loading and pipe racks; laying fuel and water lines; rigging up; drilling hole; making straight-hole tests or surveys; coring; well logging and core analysis; testing formations; mud conditioning; reaming; running casing, screen, and liner; cleaning out, bailing, and swabbing; fishing; repairing and maintaining rig and derrick; tearing down rig; dismantling derrick and racks; and moving equipment off location. It includes tool charges and rentals, but excludes the value of materials salvaged after use and the cost of the drilling derrick if it was left over well for production after completion. ¹⁵Includes the cost of delivering and installing equipment. Excludes the value of equipment that was salvaged and used again but includes the cost of salvaging.

¹⁶See footnote 15. Includes tubing, wellhead fittings, gas traps, flow tanks, etc., drilling derricks retained over well after completion, and special-production derricks.

Table 5C.—NUMBER OF WELLS PRODUCING, SHUT IN, DRILLED, SOLD OR LEASED, ABANDONED, AND USED FOR SERVICE IN THE CRUDE

Geographic divisions	Producing in December			
	Oil wells ¹		Gas wells ¹	
	1954	1953	1954	1953
1 United States, total.....	426,703	409,954	66,908	64,549
2 Middle Atlantic, total.....	65,794	69,173	17,632	17,623
3 New York.....	15,676	16,024	1,223	1,339
4 Pennsylvania.....	50,118	53,149	16,409	16,284
5 East North Central, total.....	42,295	40,641	5,061	5,170
6 Ohio.....	8,996	8,650	4,567	4,657
7 Indiana.....	3,556	3,264	235	234
8 Illinois.....	25,800	24,918	14	23
9 Michigan.....	3,943	3,809	245	256
10 West North Central, total.....	34,862	32,687	4,307	4,063
11 Iowa.....	...	...	...	...
12 Missouri.....	99	81	2	2
13 North Dakota.....	445	269	27	27
14 South Dakota.....	2	...	2	2
15 Nebraska.....	514	327	45	30
16 Kansas.....	33,802	32,010	4,231	4,002
17 South Atlantic, total.....	9,304	9,216	14,302	13,837
18 Maryland.....	...	...	26	24
19 Virginia.....	9	8	38	31
20 West Virginia.....	9,282	9,196	14,238	13,782
21 Georgia.....	...	...	...	...
22 Florida.....	13	12	...	...
23 East South Central, total.....	15,071	14,573	4,294	4,143
24 Kentucky.....	13,301	12,908	4,055	3,922
25 Tennessee.....	24	24	20	20
26 Alabama.....	101	102	...	...
27 Mississippi.....	1,645	1,539	219	201
28 West South Central, total.....	209,234	196,165	17,514	16,446
29 Arkansas.....	3,455	3,284	226	254
30 Louisiana.....	13,701	12,015	3,796	3,512
31 Oklahoma.....	55,517	51,839	3,396	3,220
32 Texas.....	136,561	129,027	10,096	9,460
33 Mountain, total.....	18,107	16,617	3,220	2,703
34 Montana.....	3,314	3,356	1,097	1,121
35 Idaho.....	...	...	...	...
36 Wyoming.....	5,720	5,071	162	173
37 Colorado.....	1,636	1,221	129	64
38 New Mexico.....	7,362	6,902	1,807	1,321
39 Arizona.....	...	...	...	...
40 Utah.....	74	67	25	24
41 Nevada.....	1	...	...	...
42 Pacific, total.....	32,036	30,882	578	564
43 Washington.....	...	...	...	...
44 Oregon.....	...	...	...	...
45 California.....	32,036	30,882	578	564

See footnotes at end of table.

CRUDE PETROLEUM AND NATURAL GAS

13B-83

PETROLEUM AND NATURAL GAS AND THE OIL AND GAS FIELD CONTRACT SERVICES INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954

Shut in or idle during all of December				Drilled and completed in 1954					Recompleted in 1954			
Oil wells		Gas wells		Total	Oil wells ¹	Gas wells ¹	Dry holes ¹	Service wells ¹	Total ²	Oil wells	Gas wells	
1954	1953	1954	1953									
30,287	25,353	6,317	6,181	52,327	28,879	3,885	16,422	3,141	3,703	3,082	388	1
6,884	4,803	1,038	1,243	1,461	521	285	220	435	88	62	26	2
993	898	28	32	413	206	5	15	187	5	4	1	3
5,891	3,905	1,010	1,211	1,048	315	280	205	248	83	58	25	4
2,300	1,841	150	76	5,581	2,698	263	2,103	517	285	254	4	5
470	500	77	37	988	438	227	275	48	51	38	2	6
73	57	15	9	801	296	18	449	38	31	31	...	7
1,679	1,225	17	3	3,231	1,746	6	1,054	425	187	169	2	8
78	59	41	27	561	218	12	325	6	16	16	...	9
1,934	1,679	259	195	6,019	3,153	389	2,166	311	353	342	4	10
...	...	...	...	25	...	...	3	22	...	...	...	11
6	5	...	...	26	23	...	2	1	...	...	...	12
7	4	...	...	301	185	...	116	...	1	1	...	13
...	...	...	...	23	2	...	21	...	...	...	...	14
19	9	24	21	411	202	19	190	...	10	10	...	15
1,902	1,661	235	174	5,233	2,741	370	1,834	288	342	331	4	16
527	630	499	874	783	90	487	169	37	19	6	13	17
...	...	3	1	7	...	5	2	...	...	...	...	18
3	7	54	42	24	...	19	5	...	...	...	...	19
523	623	439	831	709	88	460	124	37	19	6	13	20
...	...	3	...	14	...	3	11	...	...	...	...	21
1	...	...	...	29	2	...	27	...	...	...	...	22
878	677	286	274	2,066	867	201	670	328	246	226	20	23
731	526	224	213	1,622	718	172	407	325	209	191	18	24
2	2	1	...	13	...	1	12	...	...	...	...	25
4	3	...	...	29	2	...	27	...	...	...	...	26
141	146	61	61	402	147	28	224	3	37	35	2	27
10,915	9,498	3,368	2,970	29,988	17,830	1,738	8,949	1,471	2,154	1,762	261	28
217	179	52	13	524	268	13	236	7	21	19	...	29
1,263	1,231	784	737	3,146	2,000	389	749	8	350	261	60	30
3,697	3,300	507	379	8,453	5,115	356	1,935	1,047	502	433	32	31
5,738	4,788	2,025	1,841	17,865	10,447	980	6,029	409	1,281	1,049	169	32
1,678	1,372	574	430	4,058	2,033	473	1,536	16	273	206	56	33
332	162	153	26	359	165	28	163	3	13	9	...	34
...	...	...	...	1	...	...	1	...	...	...	...	35
979	939	89	73	1,153	807	17	321	8	29	25	3	36
82	54	91	93	1,327	487	67	772	1	77	73	2	37
259	184	232	232	1,116	560	355	197	4	149	97	51	38
...	...	1	...	4	...	1	3	...	...	...	...	39
26	33	8	6	84	13	5	66	...	5	2	...	40
...	...	...	...	14	1	...	13	...	...	...	...	41
5,171	4,853	143	119	2,371	1,687	49	609	26	285	224	4	42
...	...	1	...	5	...	1	4	...	...	...	...	43
...	...	...	...	1	...	...	1	...	...	...	...	44
5,171	4,853	142	119	2,365	1,687	48	604	26	285	224	4	45

Table 5C.—NUMBER OF WELLS PRODUCING, SHUT IN, DRILLED, SOLD OR LEASED, ABANDONED, AND USED FOR SERVICE IN THE CRUDE

Geographic divisions	In process of drilling December 31		Purchased, sold, or leased in 1954 ³	
	1954	1953	Purchased or leased from others	
			Oil wells	Gas wells
1 United States, total.....	3,221	3,259	13,244	1,648
2 Middle Atlantic, total.....	93	186	1,390	171
3 New York.....	21	48	657	...
4 Pennsylvania.....	72	138	733	171
5 East North Central, total.....	273	206	1,301	51
6 Ohio.....	99	71	504	38
7 Indiana.....	10	12	131	1
8 Illinois.....	113	96	606	4
9 Michigan.....	51	27	60	8
10 West North Central, total.....	265	220	2,071	10
11 Iowa.....	...	...	...	...
12 Missouri.....	...	...	...	...
13 North Dakota.....	21	23	5	...
14 South Dakota.....	1	3	...	...
15 Nebraska.....	21	13	13	1
16 Kansas.....	222	181	2,053	9
17 South Atlantic, total.....	93	92	662	242
18 Maryland.....	4	2	...	...
19 Virginia.....	4	4	...	...
20 West Virginia.....	78	83	662	242
21 Georgia.....	...	...	...	...
22 Florida.....	7	3	...	...
23 East South Central, total.....	113	122	385	6
24 Kentucky.....	79	100	345	1
25 Tennessee.....	...	1	...	...
26 Alabama.....	1	...	3	...
27 Mississippi.....	33	21	37	5
28 West South Central, total.....	1,913	1,873	6,932	781
29 Arkansas.....	20	14	311	1
30 Louisiana.....	341	293	200	151
31 Oklahoma.....	419	523	2,863	183
32 Texas.....	1,133	1,043	3,558	446
33 Mountain, total.....	268	342	282	378
34 Montana.....	40	35	71	178
35 Idaho.....	...	...	...	...
36 Wyoming.....	69	101	53	1
37 Colorado.....	45	50	19	5
38 New Mexico.....	98	148	127	194
39 Arizona.....	1	...	...	...
40 Utah.....	15	5	12	...
41 Nevada.....	...	3	...	...
42 Pacific, total.....	203	218	221	9
43 Washington.....	1	...	...	...
44 Oregon.....	1	...	...	...
45 California.....	201	218	221	9

¹For classification of wells, see table 5B, footnotes 11 and 12.²In addition to oil and gas wells, includes service wells recompleted.³Includes wells which the respondent contracted in 1954 to operate or wells for which such a contract was terminated in 1954.⁴Excludes dry holes.⁵Excludes wells on submerged offshore territories.

PETROLEUM AND NATURAL GAS AND THE OIL AND GAS FIELD CONTRACT SERVICES INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

Purchased, sold, or leased in 1954—Continued		Abandoned in 1954 ⁴		Wells being used for service, December 31, 1954	Wells included above which were operated under Federal leasehold ⁵						
Sold or leased to others					Producing during December, 1954			Drilled and completed in 1954			
		Oil wells	Gas wells		Oil wells	Gas wells	Total	Oil wells	Gas wells	Total		Oil wells	Gas wells
13,324	1,565	7,116	1,473	62,449	14,176	12,507	1,669	949	741	208	1
1,421	183	1,788	469	30,803	...	...	...	...	...	...	2
676	...	440	125	8,734	...	...	...	...	...	...	3
745	183	1,348	344	22,069	...	...	...	...	...	...	4
1,230	71	656	278	5,497	1,173	986	187	5	4	1	5
510	61	116	254	678	917	742	175	4	3	1	6
68	1	51	11	337	...	...	...	...	...	...	7
595	1	421	4	4,401	...	...	...	...	...	...	8
57	8	68	9	81	256	244	12	1	1	...	9
2,102	37	692	54	6,556	1,361	1,234	127	54	45	9	10
...	...	...	...	12	...	...	...	...	...	...	11
4	...	...	...	...	...	...	...	...	...	...	12
10	...	1	...	1	7	7	...	16	16	...	13
...	...	...	...	...	...	...	...	1	1	...	14
13	1	5	1	19	7	7	...	...	...	...	15
2,075	36	686	53	6,524	1,347	1,220	127	37	28	9	16
712	308	55	331	1,025	...	...	...	...	...	...	17
...	...	...	1	...	...	...	...	...	...	...	18
...	...	3	...	...	...	...	...	...	...	...	19
712	308	52	330	1,024	...	...	...	...	...	...	20
...	...	...	...	...	...	...	...	...	...	...	21
...	...	...	...	1	...	...	...	...	...	...	22
363	6	190	38	2,137	28	28	...	3	3	...	23
333	1	132	28	2,049	...	...	...	...	...	...	24
...	...	...	...	...	...	...	...	...	...	...	25
3	...	2	...	3	...	...	...	...	...	...	26
27	5	56	10	85	28	28	...	3	3	...	27
6,929	778	3,347	275	16,012	4,146	3,791	355	165	150	15	28
320	1	50	2	152	...	...	...	...	...	...	29
215	158	267	51	483	597	481	116	22	21	1	30
2,890	196	1,013	39	9,477	3,549	3,310	239	143	129	14	31
3,504	423	2,017	183	5,900	...	...	...	...	...	...	32
378	170	141	20	25	5,406	4,443	963	640	459	181	33
71	103	37	...	25	421	409	12	22	20	2	34
...	...	...	...	...	...	...	...	...	...	...	35
130	1	41	12	...	1,842	1,810	32	308	297	11	36
38	6	25	3	...	373	325	48	20	10	10	37
127	60	25	3	...	2,729	1,873	856	279	124	155	38
...	...	...	...	...	...	...	...	...	...	...	39
12	...	13	2	...	40	25	15	8	5	3	40
...	...	...	...	...	1	1	...	3	3	...	41
189	12	247	8	394	2,062	2,025	37	82	80	2	42
...	...	...	...	...	...	...	...	...	...	...	43
...	...	...	...	...	...	...	...	...	...	...	44
189	12	247	8	394	2,062	2,025	37	82	80	2	45

Table 5C.—OFFSHORE DRILLING OPERATIONS: PRODUCTION; EMPLOYMENT; AND NUMBER, FOOTAGE AND COSTS OF DRILLING AND EQUIPPING OIL, GAS, AND DRY WELLS; BY GEOGRAPHIC DIVISIONS AND STATES: 1954

(For census purposes, an offshore well is one which is bottomed at, or produces from, a point which lies seaward from the normal or ordinary coast line. The term does not apply to wells drilled to and producing from points underlying inland waters. All data in this table are included in other tables of this report. For explanation of line captions, see INTRODUCTION)

Item	United States, total	South Central		Pacific (California)
		Texas	Mississippi ¹ and Louisiana	
Number of establishments ²	25	7	12	6
Crude petroleum shipped and used in lease operations ³.....1,000 barrels..	28,727	516	10,954	17,257
Natural gas produced, total.....million cu. ft..	77,759	(D)	64,274	(D)
From oil wells.....do....	21,655	(D)	8,170	(D)
From gas wells.....do....	56,104	...	56,104	...
Number of employees on March 15, 1954.....	1,383	178	932	273
Number of wells drilled, total ⁴	248	30	154	64
Oil wells, total.....	184	18	103	63
Drilled on contract.....	100	2 ¹	76	22
Drilled by own company.....	84	16	27	41
Gas wells, total.....	28	3	25	...
Drilled on contract.....	15	2	13	...
Drilled by own company.....	13	1	12	...
Dry holes, total.....	36	9	26	1
Drilled on contract.....	25	3	21	1
Drilled by own company.....	11	6	5	...
Footage drilled, total.....1,000 feet..	⁵ 2,217	251	1,497	469
Oil wells.....do....	1,529	(D)	925	(D)
Gas wells.....do....	309	24	285	...
Dry holes.....do....	379	(D)	287	(D)
Average footage drilled per well, all wells.....	⁶ 8,940	⁸ 3,367	9,721	⁷ 3,328
Oil wells.....	8,310	(D)	8,981	(D)
Gas wells.....	11,036	8,000	11,400	...
Dry holes.....	10,528	(D)	11,038	(D)
Cost of drilling and equipping wells, total ⁷.....\$1,000..	68,385	7,787	52,898	7,700
Per well.....do....	⁸ 275.7	259.6	343.5	120.3
Per foot.....\$1..	⁹ 30.85	31.02	35.34	16.42
Oil wells.....\$1,000..	36,598	(D)	25,864	(D)
Per well.....do....	¹⁰ 198.9	(D)	251.1	(D)
Per foot.....\$1..	¹¹ 23.94	(D)	27.96	(D)
Gas wells.....\$1,000..	16,749	868	15,881	...
Per well.....do....	¹² 598.2	289.3	635.2	...
Per foot.....\$1..	¹³ 54.20	36.17	55.72	...
Dry holes.....\$1,000..	15,038	(D)	11,153	(D)
Per well.....do....	¹⁴ 417.7	(D)	429.0	(D)
Per foot.....\$1..	¹⁵ 39.68	(D)	38.86	(D)
Cost, excluding amount paid contractors, total.....\$1,000..	51,890	5,575	39,611	6,704
Oil wells.....do....	27,532	(D)	18,709	(D)
Gas wells.....do....	13,237	343	12,894	...
Dry holes.....do....	11,121	(D)	8,008	(D)
Cost of drilling, total ¹⁶.....do....	39,592	4,572	30,771	4,249
Oil wells.....do....	18,283	(D)	12,573	(D)
Gas wells.....do....	11,293	251	11,042	...
Dry holes.....do....	10,016	(D)	7,156	(D)
Cost of casing, total ¹⁷.....do....	8,545	628	6,084	1,833
Oil wells.....do....	6,238	(D)	4,001	(D)
Gas wells.....do....	1,430	69	1,361	...
Dry holes.....do....	877	(D)	722	(D)
Cost of equipment for flowing and pumping and production derrick, total ¹⁸.....do....	3,753	375	2,756	622
Oil wells.....do....	3,011	(D)	2,135	(D)
Gas wells.....do....	514	23	491	...
Dry holes.....do....	228	(D)	130	(D)
Amount paid or due contractors for drilling or equipping wells, total ¹⁹.....do....	16,495	2,212	13,287	996
Oil wells.....do....	9,065	(D)	7,155	(D)
Gas wells.....do....	3,513	526	2,987	...
Dry holes.....do....	3,917	(D)	3,145	(D)

D Withheld to avoid approximately disclosing figures for individual companies. ¹The only offshore activity reported in Mississippi was the drilling of one dry hole. ²Offshore data reported were included with those for the State contiguous to such operations, as well as reported separately, in part. They are so included in other tables of this report. However, the separate supplemental data providing the statistics in this table were also obtained for offshore operations. ³Crude petroleum used in lease operations amounted to less than 0.1 percent of the total production of crude petroleum. ⁴In addition to wells drilled, three companies reported recompleting 30 wells. ⁵Of the total footage drilled, wells drilled on contract accounted for 1,182 thousand feet, and wells drilled by own company for 1,035 thousand feet. ⁶Average footage drilled per well was 8,450 feet for those drilled on contract and 9,574 feet for wells drilled by own company. ⁷See table 5B, footnote 13. ⁸Cost of drilling and equipping wells drilled on contract was \$249,500 per well, and for those drilled by own company \$309,700 per well. ⁹Cost per foot for drilling and equipping wells drilled on contract was \$29.53, and for those drilled by own company \$32.35. ¹⁰Cost per well for drilling and equipping oil wells drilled on contract was \$175,900 and drilled by own company \$226,300. ¹¹Cost per foot for drilling and equipping oil wells drilled on contract was \$23.70 and drilled by own company \$24.16. ¹²Cost per well for drilling and equipping gas wells drilled on contract was \$532,900, and drilled by own company \$673,500. ¹³Cost per foot for drilling and equipping gas wells drilled on contract was \$47.02 and drilled by own company \$62.99. ¹⁴Cost per well for drilling dry holes drilled on contract was \$374,300 and drilled by own company \$516,500. ¹⁵Cost per foot for drilling dry holes drilled on contract was \$34.65 and drilled by own company \$52.12. ¹⁶Total cost of drilling was \$13,038 thousand for wells drilled on contract and \$26,554 thousand for wells drilled by own company. ¹⁷Cost of casing was \$4,400 thousand for wells drilled on contract and \$4,145 thousand for wells drilled by own company. ¹⁸Cost of equipment for flowing and pumping and production derrick was \$2,053 thousand for wells drilled on contract and \$1,700 thousand for wells drilled by own company. ¹⁹Amount paid or due contractors for drilling or equipping wells was \$15,443 thousand for wells drilled on contract and \$1,052 thousand for wells drilled by own company.

Table 5E.—CRUDE PETROLEUM PRODUCTION BY COUNTY: 1954

Geographic division, State, and county	Crude petroleum shipped (1,000 barrels)	Geographic division, State, and county	Crude petroleum shipped (1,000 barrels)	Geographic division, State, and county	Crude petroleum shipped (1,000 barrels)
United States, total.....	2,194,210	East North Central—Continued		West North Central—Continued	
Middle Atlantic, total.....	11,351	Michigan, total.....	11,425	Kansas—Continued	
New York, total.....	2,598	Allegan.....	191	Summer.....	1,357
Allegany.....	2,107	Arenac.....	1,364	Trego.....	834
Cattaraugus.....	389	Bay.....	670	Wilson.....	107
Erie.....	...	Clare.....	768	Woodson.....	497
Steuben.....	38	Crawford.....	273	Other specified counties.....	724
Other specified counties.....	2	Gladwin.....	586	Undistributed.....	2,876
Undistributed.....	62	Isabella.....	1,330		
Pennsylvania, total.....	8,753	Kent.....	125	Iowa, Missouri, and South Dakota....	118
Allegheny.....	120	Mason.....	539		
Butler.....	92	Mecosta.....	169	South Atlantic, total.....	3,222
Clarion.....	44	Midland.....	401	West Virginia, total.....	2,668
Crawford.....	47	Missaukee.....	534	Calhoun.....	145
Elk.....	509	Montcalm.....	225	Clay.....	59
Forest.....	48	Muskegon.....	114	Doddridge.....	64
Greene.....	52	Newaygo.....	206	Gilmer.....	91
McKean.....	6,183	Oceana.....	868	Harrison.....	110
Potter.....	187	Ogemaw.....	694	Jackson.....	47
Venango.....	472	Osceola.....	640	Kanawha.....	154
Warren.....	381	Ottawa.....	80	Lewis.....	35
Washington.....	149	Roscommon.....	68	Marion.....	103
Other specified counties.....	39	Saginaw.....	186	Monongalia.....	93
Undistributed.....	430	Van Buren.....	72	Pleasants.....	67
		Washtenaw.....	144	Ritchie.....	157
		Other specified counties.....	134	Roane.....	245
		Undistributed.....	1,044	Tyler.....	101
East North Central, total.....	86,566	West North Central, total.....	124,153	Wetzel.....	151
Ohio, total.....	2,983	North Dakota, total.....	5,780	Wirt.....	54
Ashland.....	59	McKenzie.....	362	Wood.....	60
Coshocton.....	582	Mountrail.....	1,296	Other specified counties.....	848
Fairfield.....	48	Williams.....	3,762	Undistributed.....	84
Hocking.....	73	Other specified counties.....	111		
Holmes.....	119	Undistributed.....	249	Maryland, Virginia, Georgia, and	
Knox.....	397	Nebraska, total.....	7,587	Florida.....	554
Licking.....	271	Banner.....	481		
Medina.....	237	Cheyenne.....	3,408	East South Central, total.....	46,246
Meigs.....	54	Kimball.....	3,361	Kentucky, total.....	12,290
Monroe.....	94	Richardson.....	153	Butler.....	38
Muskingum.....	234	Other specified counties.....	63	Daviess.....	1,019
Perry.....	387	Undistributed.....	121	Elliot.....	56
Washington.....	137	Kansas, total.....	110,668	Estill.....	154
Other specified counties.....	227	Allen.....	605	Hancock.....	370
Undistributed.....	64	Anderson.....	737	Henderson.....	2,915
Indiana, total.....	8,905	Barber.....	1,317	Johnson.....	109
Daviess.....	166	Barton.....	15,950	Lawrence.....	236
Gibson.....	2,648	Bourbon.....	55	Lee.....	336
Knox.....	313	Butler.....	7,477	McLean.....	885
Pike.....	775	Chautauqua.....	807	Magoffin.....	629
Posey.....	3,345	Clark.....	117	Muhlenberg.....	108
Spencer.....	82	Coffey.....	142	Ohio.....	1,206
Sullivan.....	565	Cowley.....	4,075	Powell.....	52
Vanderburgh.....	304	Decatur.....	282	Union.....	1,499
Vigo.....	176	Dickinson.....	105	Webster.....	954
Other specified counties.....	188	Edwards.....	94	Other specified counties.....	827
Undistributed.....	343	Elk.....	158	Undistributed.....	897
Illinois, total.....	63,253	Ellis.....	9,684		
Bond.....	54	Ellsworth.....	2,754	Tennessee.....	13
Christian.....	631	Finney.....	127	Alabama.....	1,584
Clark.....	605	Franklin.....	358		
Clay.....	3,249	Graham.....	3,609	Mississippi, total.....	32,359
Clinton.....	1,380	Greenwood.....	5,925	Adams.....	7,943
Coles.....	486	Harper.....	135	Franklin.....	357
Crawford.....	2,632	Harvey.....	498	Hinds.....	20
Cumberland.....	751	Kingman.....	603	Jasper.....	3,012
Edgar.....	168	Linn.....	78	Jefferson.....	1,509
Edwards.....	1,011	Lyon.....	310	Jones.....	247
Effingham.....	393	McPherson.....	3,436	Lamar.....	4,449
Fayette.....	6,092	Marion.....	585	Lincoln.....	5,415
Franklin.....	2,341	Meade.....	468	Madison.....	498
Gallatin.....	1,476	Miami.....	489	Marion.....	801
Hamilton.....	2,823	Montgomery.....	555	Wayne.....	2,939
Jasper.....	1,341	Neosho.....	644	Wilkinson.....	253
Jefferson.....	1,995	Ness.....	254	Yazoo.....	4,449
Lawrence.....	2,866	Norton.....	476	Other specified counties.....	247
Macon.....	83	Osborne.....	92	Undistributed.....	220
Madison.....	376	Pawnee.....	1,534		
Marion.....	8,287	Phillips.....	1,929	West-South Central, total.....	1,341,067
Richland.....	1,885	Pratt.....	2,549	Arkansas, total.....	26,860
Saline.....	642	Reno.....	1,201	Columbia.....	6,873
Wabash.....	2,627	Rice.....	6,791	Lafayette.....	4,210
Washington.....	801	Rooks.....	6,482	Miller.....	1,251
Wayne.....	7,318	Rush.....	280	Nevada.....	700
White.....	7,667	Russell.....	11,827	Ouschita.....	5,338
Other specified counties.....	687	Saline.....	1,289	Union.....	7,996
Undistributed.....	2,586	Sedgwick.....	1,013	Other specified counties.....	81
		Sheridan.....	331	Undistributed.....	411
		Stafford.....	6,046		

See footnote at end of table.

Table 5E.—CRUDE PETROLEUM PRODUCTION BY COUNTY: 1954—Continued

Geographic division, State, and county	Crude petroleum shipped (1,000 barrels)	Geographic division, State, and county	Crude petroleum shipped (1,000 barrels)	Geographic division, State, and county	Crude petroleum shipped (1,000 barrels)
West South Central—Continued		West South Central—Continued		West South Central—Continued	
Louisiana, total.....	231,238	Oklahoma—Continued		Texas—Continued	
Acadia.....	7,489	Rogers.....	719	Jefferson.....	7,923
Allen.....	335	Seminole.....	8,210	Jim Hogg.....	1,095
Assumption.....	640	Stephens.....	22,274	Jim Wells.....	7,975
Avoyelles.....	1,086	Texas.....	192	Jones.....	7,727
Beauregard.....	2,901	Tillman.....	235	Karnes.....	2,101
Bienvenue.....	138	Tulsa.....	1,153	Kaufman.....	1,525
Bossier.....	2,480	Wagoner.....	132	Kent.....	2,962
Caddo.....	7,745	Washington.....	3,520	King.....	1,202
Calcasieu.....	8,386	Washita.....	351	Knox.....	1,064
Cameron.....	7,354	Other specified counties.....	857	Lamb.....	517
Catahoula.....	181	Undistributed.....	5,336	LaSalle.....	81
Claiborne.....	4,485			Lavaca.....	290
Concordia.....	4,031	Texas, total.....	911,901	Liberty.....	11,097
De Soto.....	250	Anderson.....	2,934	Limestone.....	426
East Baton Rouge.....	1,784	Andrews.....	42,373	Live Oak.....	1,239
Evangeline.....	2,581	Arapahoe.....	3,195	Loving.....	1,534
Franklin.....	650	Archer.....	6,846	Lubbock.....	423
Iberia.....	13,944	Atascosa.....	3,717	Lynn.....	63
Iberville.....	5,774	Austin.....	2,402	McMullen.....	678
Jefferson.....	9,027	Bastrop.....	134	Madison.....	81
Jefferson Davis.....	3,004	Baylor.....	977	Marion.....	862
Lafayette.....	217	Bee.....	2,244	Martin.....	544
Lafourche.....	18,223	Bexar.....	126	Matagorda.....	5,438
La Salle.....	5,493	Borden.....	5,633	Midland.....	11,612
Lincoln.....	209	Brazoria.....	26,446	Mitchell.....	979
Madison.....	553	Brooks.....	4,757	Montague.....	7,673
Natchitoches.....	122	Brown.....	394	Montgomery.....	10,405
Plaquemines.....	39,881	Caldwell.....	4,837	Moore.....	52
Rapides.....	623	Calhoun.....	1,219	Navarro.....	1,881
Red River.....	100	Callahan.....	1,252	Newton.....	963
Richland.....	4,275	Cameron.....	76	Nolan.....	3,816
Sabine.....	72	Camp.....	236	Nueces.....	15,488
St. Charles.....	7,287	Carson.....	2,659	Orange.....	2,686
St. James.....	1,112	Cass.....	428	Palo Pinto.....	177
St. Landry.....	2,690	Chambers.....	15,142	Panola.....	729
St. Martin.....	9,503	Cherokee.....	360	Parker.....	58
St. Mary.....	11,032	Clay.....	4,531	Pecos.....	16,519
Tensas.....	1,680	Cochran.....	6,224	Polk.....	1,731
Terrebonne.....	18,907	Coke.....	13,049	Reagan.....	9,868
Union.....	257	Coleman.....	2,435	Reeves.....	328
Vermilion.....	5,398	Colorado.....	707	Refugio.....	17,245
Webster.....	2,356	Comanche.....	55	Roberts.....	1,347
West Baton Rouge.....	229	Concho.....	275	Runnels.....	5,995
Winn.....	76	Cooke.....	6,575	Rusk.....	28,611
Other specified counties.....	2,562	Crane.....	18,266	San Jacinto.....	666
Offshore.....	10,946	Crockett.....	7,878	San Patricio.....	15,119
Undistributed.....	3,170	Dallas.....	...	Schleicher.....	3,161
Oklahoma, total.....	171,068	Dawson.....	2,595	Scurry.....	24,433
Alfalfa.....	87	Denton.....	386	Shackelford.....	2,276
Beaver.....	143	DeWitt.....	2,870	Smith.....	2,808
Beckham.....	5,186	Dimmit.....	66	Starr.....	7,392
Bryan.....	615	Duval.....	10,666	Stephens.....	2,165
Caddo.....	3,672	Eastland.....	864	Sterling.....	481
Canadian.....	99	Ector.....	47,883	Stonewall.....	7,863
Carter.....	18,667	Fayette.....	350	Sutton.....	81
Cleveland.....	1,397	Fisher.....	4,106	Taylor.....	1,351
Coal.....	528	Foard.....	80	Terry.....	6,319
Comanche.....	168	Fort Bend.....	12,204	Throckmorton.....	2,867
Cotton.....	1,649	Franklin.....	3,744	Titus.....	3,959
Creek.....	7,675	Freestone.....	203	Tom Green.....	988
Garfield.....	1,071	Frio.....	3,217		
Garvin.....	18,323	Gaines.....	17,688	Tyler.....	860
Grady.....	2,817	Galveston.....	8,183	Upshur.....	4,487
Grant.....	567	Garza.....	4,100	Upton.....	19,472
Hughes.....	4,104	Glasscock.....	5,608	Van Zandt.....	8,832
Jackson.....	482	Goliad.....	2,671	Victoria.....	6,507
Jefferson.....	769	Gray.....	12,206	Waller.....	452
Key.....	2,424	Grayson.....	6,547	Ward.....	7,548
Kingfisher.....	217	Gregg.....	43,086	Washington.....	318
Lincoln.....	5,953	Grimes.....	49	Webb.....	1,658
Logan.....	2,480	Guadalupe.....	3,695	Wharton.....	6,442
Love.....	162	Hale.....	1,813	Wheeler.....	1,567
McClain.....	2,134	Hardin.....	6,913	Wichita.....	9,903
Major.....	631	Harris.....	24,140	Wilbarger.....	3,005
Marshall.....	1,368	Harrison.....	1,137	Willacy.....	2,668
Muskogee.....	209	Haskell.....	2,892	Williamson.....	43
Noble.....	2,223	Henderson.....	863	Wilson.....	230
Nowata.....	4,078	Hidalgo.....	771	Winkler.....	15,518
Okfuskee.....	3,501	Hockley.....	14,236		
Oklahoma.....	9,520	Hopkins.....	2,677	Wise.....	449
Okmulgee.....	1,107	Houston.....	748	Wood.....	21,254
Osage.....	11,498	Howard.....	12,070	Yoakum.....	17,373
Pawnee.....	1,906	Hutchinson.....	11,903	Young.....	4,878
Payne.....	4,087	Irion.....	39	Zapata.....	813
Pontotoc.....	3,363	Jack.....	5,369	Other specified counties.....	8,605
Pottawatomie.....	3,209	Jackson.....	11,109	Offshore.....	516
		Jasper.....	248	Undistributed.....	13,187

See footnote at end of table.

Table 5E.—CRUDE PETROLEUM PRODUCTION BY COUNTY: 1954—Continued

Geographic division, State, and county	Crude petroleum shipped (1,000 barrels)	Geographic division, State, and county	Crude petroleum shipped (1,000 barrels)	Geographic division, State, and county	Crude petroleum shipped (1,000 barrels)
Mountain, total.....	225,283	Mountain—Continued		Mountain—Continued	
Montana, total.....	13,771	Wyoming—Continued		Utah.....	(D)
Big Horn.....	142	Washakie.....	1,736	Uintah.....	1,651
Carbon.....	1,867	Weston.....	7,407		
Glacier.....	2,381	Other specified counties.....	1,819		
Musselshell.....	412	Undistributed.....	1,798	Idaho, Arizona and Nevada.....	(D)
Pondera.....	409				
Roosevelt.....	2,878	Colorado, total.....	44,667		
Teton.....	192	Adams.....	1,139	Pacific (California).....	356,322
Toole.....	1,426	Logan.....	7,861		
Other specified counties.....	3,954	Moffat.....	984	Fresno.....	34,034
Undistributed.....	110	Morgan.....	3,976	Kern.....	89,056
Wyoming, total.....	91,131	Rio Blanco.....	25,357	Kings.....	2,662
Big Horn.....	14,636	Washington.....	2,704	Los Angeles.....	92,603
Carbon.....	2,394	Weld.....	1,314	Monterey.....	11,161
Converse.....	5,946	Other specified counties.....	521	Orange.....	24,780
Fremont.....	12,733	Undistributed.....	811		
Hot Springs.....	8,880	New Mexico, total.....	73,774	San Luis Obispo.....	3,046
Johnson.....	6,922	Chaves.....	592	Santa Barbara.....	31,915
Lincoln.....	83	Eddy.....	2,818	Ventura.....	47,734
Matrona.....	6,187	Lea.....	68,929	Other specified counties.....	43
Niobrara.....	2,689	San Juan.....	150	Offshore.....	17,256
Park.....	17,901	Other specified counties.....	310	Undistributed.....	2,032
		Undistributed.....	975		

D Withheld to avoid approximately disclosing figures for individual companies.

Table 6A.—GENERAL STATISTICS FOR CRUDE PETROLEUM AND NATURAL GAS ESTABLISHMENTS CLASSIFIED BY EMPLOYMENT SIZE, BY GEOGRAPHIC DIVISIONS AND STATES: 1954

(For explanation of column captions, see INTRODUCTION)

Geographic division, State, and number of employees in establishment ¹	Number of establishments ¹	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
United States, total.....	11,508	7,070,097	6,129,213	109,792	2,62,714	216,581	459,955	2,375,785	1,863,393
0.....	1,908	103,104	26,488	...	...	3	10	4	117,618
1-4.....	6,294	314,795	227,553	10,027	1,612	14,140	22,444	4,901	107,229
5-9.....	1,421	260,752	200,686	7,267	1,934	12,919	21,910	8,204	70,865
10-19.....	843	393,904	301,831	8,967	2,512	17,741	31,208	14,209	104,799
20-49.....	618	696,337	572,857	13,858	4,624	28,874	54,408	27,899	171,586
50-99.....	203	578,511	493,153	10,357	3,449	21,989	44,469	20,814	147,363
100-249.....	138	1,107,018	994,700	15,232	6,112	32,110	70,600	37,067	319,431
250-499.....	39	730,036	667,855	9,198	4,494	19,313	43,139	26,090	157,133
500-999.....	29	1,060,714	985,597	14,199	5,609	28,498	67,321	32,431	264,518
1,000-2,499.....	11	1,011,814	936,667	11,203	5,976	22,657	56,501	36,928	237,638
2,500 and over.....	4	813,112	721,826	9,484	4,673	18,337	47,945	31,230	165,213
Middle Atlantic, total.....	1,168	77,379	55,139	5,638	2,069	10,789	17,957	2,11,711	18,089
0.....	208	1,520	(³)	...	...	...	...	...	175
1-4.....	770	11,865	9,672	1,282	112	1,820	2,474	117	3,323
5-9.....	119	9,728	8,475	655	87	1,260	1,936	186	1,479
10-19.....	31	5,372	4,546	320	78	676	1,025	382	1,102
20-49.....	22	16,147	14,921	570	77	1,223	2,099	483	4,828
50-99.....	7	8,231	7,199	371	32	795	1,451	175	1,204
100-249.....	8	24,516	19,860	2,440	455	5,015	8,972	1,904	5,978
500-999.....	3								
New York, total.....	258	10,229	7,965	1,027	2,1,318	1,943	3,276	2,8,417	2,821
0.....	32	284	201	...	...	...	...	...	2
1-4.....	187	2,774	2,151	287	32	450	633	27	148
5-9.....	25	1,359	1,152	130	13	248	399	21	42
10-19.....	6	1,109	873	72	12	161	234	41	126
20-49.....	5	1,648	1,677	130	14	258	459	83	761
100-249.....	3	3,055	1,911	408	65	826	1,551	320	1,742
Pennsylvania, total.....	910	67,150	47,174	4,611	2,751	8,846	14,681	2,3,294	15,268
0.....	176	1,236	(³)	...	...	...	...	...	173
1-4.....	583	9,091	7,521	995	80	1,370	1,841	90	3,175
5-9.....	94	8,369	7,323	525	74	1,012	1,537	165	1,437
10-19.....	25	4,263	3,673	248	66	515	791	341	976
20-49.....	17	14,499	13,244	440	63	965	1,640	400	4,067
50-99.....	7	8,231	7,199	371	32	795	1,451	175	1,204
100-249.....	5	21,461	17,949	2,032	390	4,189	7,421	1,584	4,236
250-499.....	...								
500-999.....	3								
East North Central, total.....	1,473	259,086	207,760	8,830	2,3,550	16,235	32,058	2,18,525	59,807
0.....	248	6,244	124	...	...	...	...	...	5,742
1-4.....	879	25,700	14,601	1,407	142	1,741	2,651	270	9,414
5-9.....	156	21,033	14,380	807	193	1,387	2,253	597	4,474
10-19.....	98	30,340	23,921	1,141	210	2,091	3,590	984	4,718
20-49.....	62	42,459	31,568	1,481	316	2,770	5,316	1,617	8,243
50-99.....	16	25,447	22,273	871	223	1,869	3,812	1,256	7,356
100-249.....	9	34,682	28,989	1,016	203	2,346	5,100	1,094	5,302
250-499.....	2	73,181	71,904	2,107	379	4,031	9,336	2,033	14,558
500-999.....	3								
Ohio, total.....	520	16,665	12,528	1,614	2,1,735	2,516	3,811	2,9,222	7,533
0.....	96	710	108	...	...	...	...	...	1,179
1-4.....	359	2,652	1,529	533	41	519	692	56	2,134
5-9.....	30	1,261	983	169	29	244	344	60	225
10-19.....	22	2,659	1,977	259	38	475	684	151	813
20-49.....	9	9,383	7,931	653	260	1,278	2,091	1,211	3,182
50-99.....	2								
100-249.....	1								
250-499.....	1								
Indiana, total.....	250	26,188	19,951	807	2,431	1,304	2,426	2,2,257	4,953
0.....	41	533	(³)	...	...	...	...	...	846
1-4.....	149	6,265	3,906	244	23	312	527	68	1,756
5-9.....	32	3,853	3,037	151	50	263	430	152	354
10-19.....	18	7,607	6,554	193	46	344	647	240	956
20-49.....	8	7,930	6,834	219	93	385	822	575	1,041
500-999.....	2								
Illinois, total.....	523	182,138	150,753	5,250	2,1,178	10,117	20,828	2,6,002	40,911
0.....	65	2,455	839	...	...	...	...	...	1,474
1-4.....	291	13,673	7,416	490	57	680	1,054	107	4,655
5-9.....	70	13,530	8,508	357	92	653	1,059	288	3,300
10-19.....	42	14,927	11,428	505	90	903	1,510	378	2,523
20-49.....	34	22,349	15,010	874	116	1,575	2,995	585	4,860
50-99.....	11	20,821	18,261	634	118	1,368	2,809	617	6,251
100-249.....	6	26,049	22,452	567	125	1,390	3,012	696	3,870
250-499.....	1	68,334	66,839	1,823	282	3,548	8,389	1,623	13,978
500-999.....	3								

See footnotes at end of table.

Table 6A.—GENERAL STATISTICS FOR CRUDE PETROLEUM AND NATURAL GAS ESTABLISHMENTS CLASSIFIED BY EMPLOYMENT SIZE,
BY GEOGRAPHIC DIVISIONS AND STATES; 1954—Continued

Geographic division, State, and number of employees in establishment ¹	Number of estab- lish- ments ¹	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expend- itures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
East North Central—Continued									
Michigan, total.....	180	34,095	24,528	1,159	206	2,298	4,993	1,044	6,410
0.....	46	2,546	(³)	...	...	...	...	...	2,243
1-4.....	80	3,110	1,750	140	21	230	378	39	869
5-9.....	24	2,389	1,852	130	22	227	420	97	595
10-19.....	16	5,147	3,962	184	36	369	749	215	426
20-49.....	11	12,216	10,624	269	66	562	1,261	346	1,409
50-99.....	1	8,687	6,783	436	61	910	2,185	347	868
100-249.....	2								
West North Central, total.....	1,007	382,708	296,266	8,042	22,336	15,751	31,250	212,339	98,109
0.....	154	4,989	1,464	...	...	1	2	...	2,645
1-4.....	523	28,554	20,562	823	132	1,117	1,730	381	8,886
5-9.....	127	22,657	16,015	693	135	1,215	1,937	517	6,136
10-19.....	91	40,320	30,403	1,009	249	2,041	3,587	1,191	13,079
20-49.....	76	76,630	60,749	1,749	539	3,719	6,846	3,102	21,390
50-99.....	17	33,657	25,407	963	236	1,973	4,075	1,335	8,000
100-249.....	17	175,901	141,666	2,805	916	5,685	13,073	5,057	37,973
250-499.....	1								
500-999.....	1								
Missouri, total.....	16									209	41	15	264	22	39	2440	449
0.....	3	20	14	...	...	...	...	...	(D)
1-4.....	12	189	27	15	24	22	39	96	(D)
20-49.....	1								
North Dakota, total.....	32	12,028	(³)	374	297	803	1,808	1,654	13,248
0.....	4	67	(³)	...	...	...	...	...	767
1-4.....	5	381	(³)	31	22	82	185	127	453
5-9.....	5								
10-19.....	9	11,580	(³)	343	275	721	1,623	1,527	12,028
20-49.....	7								
50-99.....	1								
100-249.....	1								
Nebraska, total.....	66	21,444	18,551	257	267	505	1,180	2293	13,879
0.....	24	540	258	...	...	1	2	...	355
1-4.....	27	4,533	2,639	44	19	77	181	55	3,411
5-9.....	6	3,098	1,823	31	3	62	132	13	2,280
10-19.....	8	13,273	13,831	182	44	365	865	222	7,833
100-249.....	1								
Kansas, total.....	871	348,952	285,117	7,374	21,864	14,374	28,129	29,706	69,786
0.....	106	4,359	2,681	...	...	...	...	...	1,222
1-4.....	478	23,522	17,699	763	99	1,017	1,507	255	5,075
5-9.....	114	19,503	14,904	627	113	1,063	1,606	422	3,431
10-19.....	74	33,839	25,054	865	161	1,743	2,959	761	7,168
20-49.....	66	75,082	60,909	1,648	323	3,505	6,406	1,863	17,605
50-99.....	16	192,647	163,870	3,471	1,080	7,046	15,651	5,996	35,285
100-249.....	15								
250-499.....	1								
500-999.....	1								
Iowa and South Dakota, total.....	22	75	(³)	22	44	47	94	246	747
0.....	17	3	(³)	...	...	...	...	...	...
1-4.....	1	72	(³)	22	44	47	94	246	747
5-9.....	2								
10-19.....	2								
20-49.....	2								
South Atlantic, total.....	775	55,202	46,870	3,486	2650	5,823	9,808	22,994	12,712
0.....	136	828	(³)	...	...	...	...	...	1,197
1-4.....	536	3,950	2,971	771	90	557	694	102	1,197
5-9.....	52	4,293	3,428	320	51	452	643	210	1,036
10-19.....	24	2,237	1,708	251	48	464	712	180	999
20-49.....	14	4,441	2,078	331	102	659	971	484	1,129
50-99.....	6	4,986	4,816	313	102	658	1,186	578	565
100-249.....	4	9,473	7,195	455	32	949	1,625	177	1,600
250-499.....	2	24,994	24,830	1,045	86	2,084	3,977	447	4,989
500-999.....	1								
West Virginia, total.....	734	53,340	48,525	3,368	2469	5,586	9,353	21,953	11,414
0.....	119	823	472	...	...	...	...	...	...
1-4.....	525	3,913	3,351	759	83	540	667	65	2,199
5-9.....	47	3,966	3,464	306	32	419	582	99	681
10-19.....	21	10,171	9,213	803	111	1,594	2,502	406	1,945
20-49.....	10								
50-99.....	5								
100-249.....	4								
250-499.....	2	24,994	24,830	1,045	86	2,084	3,977	447	4,989
500-999.....	1								

See footnotes at end of table.

Table 6A.—GENERAL STATISTICS FOR CRUDE PETROLEUM AND NATURAL GAS ESTABLISHMENTS CLASSIFIED BY EMPLOYMENT SIZE,
BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

Geographic division, State, and number of employees in establishment ¹	Number of estab- lish- ments ¹	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expend- itures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
South Atlantic—Continued									
Maryland, Virginia, Georgia, and Florida....	41	1,862	(³)	118	² 181	237	455	² 1,041	1,298
0.....	17	5	(³)	...	...	...	...	...	195 355
1-4.....	11	37	(³)	12	7	18	30	37	
5-9.....	5	327	(³)	14	19	32	58	111	
10-19.....	3	1,493	(³)	92	141	187	367	836	
20-49.....	4								
50-99.....	1								
East South Central, total.....									
0.....	493	151,807	124,426	3,748	885	7,008	12,848	4,664	35,128
1-4.....	100	2,088	(³)	...	...	...	...	...	1,511
5-9.....	245	14,560	10,980	385	51	528	809	170	3,711
10-19.....	59	10,589	7,960	309	80	566	914	325	3,183
20-49.....	40	13,229	9,246	422	82	805	1,467	420	1,663
50-99.....	33	24,758	20,688	909	171	1,792	3,229	854	7,274
100-249.....	11	40,111	36,882	579	180	1,201	2,380	1,147	10,741
250-499.....	3	46,472	38,949	1,144	321	2,116	4,049	1,748	7,045
500-999.....	1								
Kentucky, total.....	329									53,956	46,407	2,604	285	4,617	7,506	1,176	14,745
0.....	51	1,383	978	...	...	...	...	...	340
1-4.....	184	4,149	3,348	289	18	344	467	28	1,408
5-9.....	40	5,266	4,124	224	37	394	562	106	1,933
10-19.....	23	3,523	2,169	257	26	426	630	52	502
20-49.....	23	18,099	14,978	679	75	1,283	2,223	359	3,870
50-99.....	5	21,536	20,810	1,155	129	2,170	3,624	631	6,692
100-249.....	2								
500-999.....	1								
Tennessee, total.....	18	57	(³)	10	1	20	22	5	...
0.....	13	57	(³)	10	1	20	22	5	...
1-4.....	4								
5-9.....	1								
Alabama, total.....	28	3,136	1,181	77	27	144	318	153	458
0.....	14	666	(³)	20	10	39	74	50	177
1-4.....	7								
5-9.....	2								
10-19.....	4	2,470	1,484	57	17	105	244	103	281
20-49.....	1								
Mississippi, total.....	118	94,658	76,874	1,057	572	2,227	5,002	3,330	19,925
0.....	22	577	(³)	...	...	...	...	...	1,141
1-4.....	50	9,876	7,456	85	23	171	312	94	2,168
5-9.....	16	5,263	3,793	66	42	126	286	212	1,238
10-19.....	13	13,895	11,303	338	135	783	1,599	760	4,284
20-49.....	9								
50-99.....	6								
100-249.....	1	65,047	55,021	568	372	1,147	2,805	2,264	11,094
250-499.....	1								
West South Central, total.....	5,039	4,435,482	3,856,800	61,942	² 41,925	125,008	270,139	² 254,276	1,245,314
0.....	728	66,858	37,162	...	...	1	5	1	78,486
1-4.....	2,622	179,100	135,437	4,254	782	6,421	10,221	2,742	53,263
5-9.....	695	147,163	115,859	3,548	931	6,328	10,605	4,323	35,692
10-19.....	451	252,779	197,714	4,811	1,362	9,738	16,642	7,931	62,365
20-49.....	322	386,882	317,224	7,091	2,412	15,007	27,547	15,236	93,434
50-99.....	101	275,822	225,396	5,341	1,557	11,441	22,271	9,181	71,714
100-249.....	66	547,900	506,277	7,083	3,061	15,442	33,204	19,310	182,905
250-499.....	26	444,627	403,382	5,558	3,430	12,008	26,429	19,681	119,923
500-999.....	17	737,624	677,204	8,020	4,189	16,253	40,541	24,356	214,697
1,000-2,499.....	8	1,396,727	1,241,145	16,236	8,824	32,369	82,674	55,560	332,835
2,500 and over.....	3								
Arkansas, total.....	204	73,741	61,194	1,220	2489	2,430	4,673	² 2,762	9,079
0.....	41	2,020	678	...	...	...	...	...	1,643
1-4.....	95	6,607	3,916	171	23	302	445	108	2,157
5-9.....	30	6,408	5,575	182	25	361	623	123	572
10-19.....	18	9,873	8,057	210	51	468	827	284	954
20-49.....	14	15,965	15,621	337	84	646	1,266	522	1,042
50-99.....	4	32,868	27,347	320	159	653	1,512	930	2,711
100-249.....	2								

See footnotes at end of table.

Table 6A.—GENERAL STATISTICS FOR CRUDE PETROLEUM AND NATURAL GAS ESTABLISHMENTS CLASSIFIED BY EMPLOYMENT SIZE,
BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

Geographic division, State, and number of employees in establishment ¹	Number of estab- lish- ments ¹	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expend- itures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
West South Central—Continued									
Louisiana, total.....	463	847,595	738,888	11,628	² 5,328	24,122	56,938	² 32,577	370,529
0.....	77	11,147	4,610	...	...	...	2	...	41,109
1-4.....	197	17,447	14,296	319	52	521	842	239	5,259
5-9.....	63	14,310	11,318	310	71	601	992	383	4,702
10-19.....	60	34,284	25,163	574	242	1,170	2,156	1,359	12,218
20-49.....	26	48,529	40,554	580	187	1,216	2,420	1,155	9,139
50-99.....	13	49,291	43,430	629	281	1,347	2,695	1,341	10,530
100-249.....	16	152,862	146,404	2,004	633	4,144	9,628	3,578	90,810
250-499.....	2	519,725	453,113	7,212	2,362	15,123	38,203	15,096	196,762
500-999.....	6								
1,000-2,499.....	3								
Oklahoma, total.....	1,535	523,338	433,563	13,431	² 8,615	25,851	51,707	² 50,196	187,164
0.....	197	8,718	6,446	...	...	...	...	...	4,936
1-4.....	876	39,654	29,356	1,467	208	1,988	3,042	586	12,683
5-9.....	184	29,113	20,612	988	200	1,657	2,486	841	10,520
10-19.....	131	41,812	33,080	1,528	293	2,843	4,726	1,474	14,354
20-49.....	95	74,326	56,332	2,179	710	4,429	7,812	4,271	24,376
50-99.....	24	99,311	81,420	2,798	939	6,079	12,352	5,572	32,277
100-249.....	14								
250-499.....	9								
500-999.....	4	230,404	206,317	4,471	2,303	8,855	21,289	13,868	88,018
1,000-2,499.....	1								
Texas, total.....	2,837	2,990,808	2,623,155	35,663	² 27,493	72,605	156,821	² 168,741	678,542
0.....	413	44,973	25,428	...	...	1	3	1	30,798
1-4.....	1,454	115,392	87,869	2,297	499	3,610	5,892	1,809	33,164
5-9.....	418	97,332	78,354	2,068	635	3,709	6,504	2,976	19,898
10-19.....	242	166,810	131,414	2,499	776	5,257	8,933	4,814	34,839
20-49.....	187	248,062	204,717	3,995	1,431	8,716	16,049	9,288	58,877
50-99.....	60	179,397	146,544	3,159	1,037	6,745	13,029	6,636	46,767
100-249.....	34	309,993	286,528	3,514	1,569	7,915	16,259	10,434	71,524
250-499.....	15	301,078	272,251	2,889	2,346	6,576	13,646	12,590	66,775
500-999.....	7	395,537	386,242	2,973	2,233	6,105	14,596	12,294	81,164
1,000-2,499.....	4	1,132,234	1,003,908	12,269	7,199	23,971	61,910	45,749	234,736
2,500 and over.....	3								
Mountain, total.....	908	626,908	529,746	7,006	² 5,161	13,969	32,122	² 30,028	210,034
0.....	193	9,208	(³)	...	...	1	3	...	12,717
1-4.....	412	34,138	21,195	619	173	1,115	2,227	640	19,247
5-9.....	125	33,271	25,019	534	286	1,050	2,248	1,406	17,112
10-19.....	69	29,367	18,483	642	334	1,248	2,726	1,958	18,795
20-49.....	51	49,700	40,409	997	658	2,129	4,608	3,919	21,590
50-99.....	37	165,009	150,725	1,595	913	3,278	7,523	5,480	44,196
100-249.....	18	306,215	282,126	2,619	1,600	5,148	12,787	9,118	76,377
250-499.....	3								
Montana, total.....	207	32,323	23,677	878	² 824	1,808	3,820	² 4,571	17,737
0.....	32	795	(³)	...	...	...	...	...	1,037
1-4.....	121	4,138	1,636	176	51	287	514	112	1,532
5-9.....	26	2,224	1,599	83	74	171	338	345	1,587
10-19.....	12	1,235	(³)	99	69	199	440	310	1,673
20-49.....	9	8,472	9,929	171	161	444	816	938	2,802
50-99.....	4	15,459	11,154	349	337	707	1,712	2,046	9,106
100-249.....	3								
Wyoming, total.....	214	223,629	193,467	2,537	² 1,644	4,908	11,680	² 9,831	60,245
0.....	34	2,910	(³)	...	...	...	...	...	3,932
1-4.....	102	9,831	7,051	163	38	303	650	206	6,350
5-9.....	28	6,512	3,873	114	72	249	576	374	5,261
10-19.....	20	8,788	2,697	197	93	406	897	525	7,510
20-49.....	8	8,348	6,002	156	108	324	764	703	2,770
50-99.....	14	45,543	38,743	632	238	1,222	2,676	1,606	11,006
100-249.....	5	141,697	136,928	1,275	564	2,404	6,117	3,236	23,416
250-499.....	3								
Colorado, total.....	154	127,536	107,149	939	² 1,401	1,927	4,486	² 8,511	38,504
0.....	40	1,399	(³)	...	...	...	...	...	1,594
1-4.....	55	5,039	2,963	74	41	129	314	175	3,925
5-9.....	27	7,686	4,305	118	54	233	562	246	3,592
10-19.....	10	4,245	3,078	107	56	197	427	406	3,096
20-49.....	11	18,868	17,107	179	171	403	819	1,047	9,691
50-99.....	9	90,299	83,556	461	560	965	2,364	3,202	16,606
100-249.....	2								

See footnotes at end of table.

Table 6A.—GENERAL STATISTICS FOR CRUDE PETROLEUM AND NATURAL GAS ESTABLISHMENTS CLASSIFIED BY EMPLOYMENT SIZE, BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

Geographic division, State, and number of employees in establishment ¹	Number of estab- lish- ments ¹	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expend- itures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
Mountain—Continued									
New Mexico, total.....	261	236,731	209,219	2,255	1,994	4,535	10,232	15,531	86,238
0.....	57	3,981	920	...	...	...	...	...	5,118
1-4.....	119	14,405	9,510	191	34	369	693	120	7,326
5-9.....	37	16,847	15,137	177	76	323	615	386	5,943
10-19.....	19	14,795	13,200	184	71	339	724	442	5,619
20-49.....	14	11,095	8,135	294	101	562	1,257	618	3,271
50-99.....	7	58,361	55,460	354	183	795	1,772	990	18,025
100-249.....	8	117,247	106,857	1,055	518	2,147	5,171	2,921	40,936
Utah, total.....	42	(D)	(2)	315	1,254	624	1,578	1,385	5,751
0.....	11	123	(2)	...	...	...	...	...	523
1-4.....	8	725	30	11	1	21	45	1	19
5-9.....	6	(D)	1,538	216	137	417	1,035	773	3,731
10-19.....	7								
20-49.....	7								
50-99.....	3								
Arizona, Idaho, and Nevada, total.....	30	(D)	(2)	82	144	167	326	1,199	1,559
0.....	19	...	(2)	...	...	1	3	...	513
1-4.....	7	...	5	4	8	6	11	26	95
5-9.....	1	(D)	(2)	78	35	160	312	170	951
10-19.....	1								
20-49.....	2								
Pacific, total.....	645	1,081,525	1,012,206	11,100	16,110	21,998	53,773	141,072	184,200
0.....	141	11,369	5,918	...	...	...	...	3	15,145
1-4.....	307	16,928	12,135	486	130	841	1,638	479	8,188
5-9.....	88	12,018	9,550	401	171	661	1,374	640	1,753
10-19.....	39	20,260	15,810	371	149	678	1,459	1,163	2,078
20-49.....	38	95,320	85,220	730	349	1,575	3,792	2,204	13,698
50-99.....	8	25,248	20,455	324	206	774	1,771	1,662	3,587
100-249.....	13	152,973	145,864	1,366	620	2,782	7,068	4,160	28,313
250-499.....	4	101,476	87,635	1,274	389	2,686	6,154	2,656	8,923
500-999.....	3	217,734	212,271	1,697	534	3,376	8,745	3,847	32,499
1,000-2,499.....	3	428,199	417,348	4,451	1,825	8,625	21,772	12,598	70,016
2,500 and over.....	1								
California, total.....	635	1,081,525	1,012,679	11,091	16,003	21,979	53,728	140,396	184,108
0.....	137	11,369	6,232	...	...	...	...	1	23,284
1-4.....	304	16,928	12,158	484	127	835	1,625	461	1,753
5-9.....	88	12,018	9,550	401	171	661	1,374	640	1,753
10-19.....	38	20,260	101,166	1,094	425	2,240	5,219	2,939	15,733
20-49.....	36	95,320							
50-99.....	8	25,248	20,455	324	206	774	1,771	1,662	3,587
100-249.....	13	152,973	145,864	1,366	620	2,782	7,068	4,160	28,313
250-499.....	4	101,476	87,635	1,274	389	2,686	6,154	2,656	8,923
500-999.....	3	217,734	212,271	1,697	534	3,376	8,745	3,847	32,499
1,000-2,499.....	3	428,199	417,348	4,451	1,825	8,625	21,772	12,598	70,016
2,500 and over.....	1								

D Withheld to avoid approximately disclosing figures for individual companies.

¹For Census purposes, and oil or gas field establishment was defined as all oil and gas field properties in one State operated by one company. For individual States this tabulation, therefore, indicates the approximate size of operating company, as measured by employment. This should be distinguished from owning company size, since many companies operate large blocks of properties for others.

²Includes figures for central office employees which were not classified by size of establishment. Figures for 28 employees paid \$176 thousand at offices in Connecticut, Minnesota, Iowa, and North Carolina are included in the United States totals only.

³Value added is not shown since the combined cost of supplies, purchased gas for gas lift and repressuring, fuel, purchased electric energy, contract work, and purchased machinery installed exceeded the sum of the value of shipments and capital expenditures. See INTRODUCTION, "Value Added in Mining."

Table 6B.—SELECTED STATISTICS FOR OPERATING COMPANIES IN THE CRUDE PETROLEUM AND NATURAL GAS INDUSTRIES RANKED BY SIZE OF OPERATIONS: 1954 and 1939

PART I—STATISTICS FOR 1954¹

Item	All operating companies	Operating companies in each industry ranked by value of shipments and operating companies in all industries ranked by crude petroleum shipped and by natural gas produced				
		First 4 companies	First 8 companies	First 20 companies	First 50 companies	First 100 companies
CRUDE PETROLEUM INDUSTRY						
Number of operating companies.....	8,565	4	8	20	50	100
Value of shipments.....\$1,000..	6,642,452	1,594,799	2,629,773	4,051,438	(NA)	(NA)
Value added in mining.....do..	5,741,256	1,465,518	2,413,759	3,740,823	(NA)	(NA)
Number of employees.....	161,282	30,857	56,329	83,384	(NA)	(NA)
Wages and salaries.....\$1,000..	790,946	178,763	315,388	457,948	(NA)	(NA)
New capital expenditures.....do..	1,742,763	396,954	694,688	998,411	(NA)	(NA)
NATURAL GAS INDUSTRY						
Number of operating companies.....	1,290	4	8	20	50	100
Value of shipments.....\$1,000..	427,645	101,315	158,291	253,209	(NA)	(NA)
Value added in mining.....do..	387,957	98,236	154,228	245,253	(NA)	(NA)
Number of employees.....	11,224	2,059	2,668	4,490	(NA)	(NA)
Wages and salaries.....\$1,000..	44,794	9,352	12,495	20,509	(NA)	(NA)
New capital expenditures.....do..	120,630	28,591	33,304	64,768	(NA)	(NA)
ALL CRUDE PETROLEUM AND NATURAL GAS EXTRACTION INDUSTRIES						
Crude petroleum shipped ².....1,000,000 barrels..	2,196	503	847	1,299	1,567	1,689
Natural gas produced.....billion cu. ft..	10,122	2,199	3,517	5,493	7,458	8,499

PART II—STATISTICS FOR 1939¹

Item	All operating companies	OPERATING COMPANIES PRODUCING CRUDE PETROLEUM AMOUNTING TO—								Operating companies producing gas only	Non-producing companies
		10,000,000 barrels or over	2,000,000 to 10,000,000 barrels	500,000 to 2,000,000 barrels	100,000 to 500,000 barrels	25,000 to 100,000 barrels	10,000 to 25,000 barrels	5,000 to 10,000 barrels	Less than 5,000 barrels		
Number of operating companies.....	8,061	21	40	185	829	1,717	1,716	1,258	1,597	419	279
Number of wells producing, December 31, 1939, total.....	347,645	90,205	34,226	35,990	58,482	41,027	25,923	17,330	28,449	16,013	...
Oil wells.....	300,179	88,722	32,546	35,246	54,662	38,083	21,375	14,442	15,103	...	...
Gas wells.....	47,466	1,483	1,680	744	3,820	2,944	4,548	2,888	13,346	16,013	...
Quantity of products:											
Crude petroleum.....1,000 barrels..	1,228,134	603,180	171,715	171,359	170,247	76,784	23,016	7,877	3,956	...	...
Natural gas, total...million cu. ft..	2,929,185	959,115	420,780	309,157	251,070	161,466	162,143	90,842	138,386	436,226	...
Shipped.....do..	2,287,413	645,875	330,572	228,049	212,927	113,816	134,561	83,828	132,526	405,259	...
All other production.....do..	641,772	313,240	90,208	81,108	38,143	47,650	27,582	7,014	5,860	30,967	...
Value of all products.....\$1,000..	1,375,954	648,016	183,078	181,248	181,767	84,154	32,044	16,177	20,353	29,117	...
Crude petroleum.....do..	1,251,905	625,807	171,830	172,410	168,859	76,222	23,837	8,353	4,587	...	...
Number of persons engaged, total.....	142,345	52,837	15,650	14,866	20,429	14,398	7,489	5,245	6,919	4,091	421
Production and development workers...	105,505	37,980	12,595	12,212	16,443	10,224	5,021	3,448	4,345	3,042	195
All other employees.....	30,546	14,857	3,043	2,595	3,433	2,996	1,241	674	930	717	60
Proprietors and firm members.....	6,294	...	12	59	553	1,178	1,227	1,123	1,644	332	166
Performing manual labor.....	1,346	...	7	11	73	217	172	250	464	119	33
Wages of production and development workers.....\$1,000..	155,700	68,405	20,457	17,965	20,579	11,980	5,209	3,090	3,967	3,740	308
Salaries of all other employees.....do..	79,199	38,753	9,058	9,306	10,293	6,265	1,932	868	1,334	1,293	97
Number of wells drilled and completed in 1939, total ³	22,560	6,994	1,395	3,086	4,076	2,624	1,484	797	1,129	646	329
Oil wells.....	17,263	6,209	1,141	2,618	3,163	2,036	1,016	457	599	...	24
Gas wells.....	1,594	133	72	62	153	103	175	153	277	455	11
Dry holes.....	3,703	652	182	406	760	485	293	187	253	191	294
Footage of wells drilled and completed in 1939 ³.....1,000 ft..	72,191	27,071	6,594	10,480	11,493	6,904	3,408	1,566	2,219	1,619	837
Cost of drilling and equipping wells completed in 1939 ³.....\$1,000..	404,904	185,365	47,906	56,918	52,934	27,644	11,439	6,004	7,228	6,496	2,970

NA Not available.

¹These special tabulations were not part of the Census Bureau original tabulation plans. They were prepared at the request of other Government agencies and business groups and are included here because their previous release has indicated a general public interest in them.²Includes crude petroleum used in lease operations, amounting to less than 0.1 percent of the total for all operating companies.³For 1939, no data were obtained on the number, footage, or cost of drilling service wells.

Table 7.—EMPLOYMENT IN SELECTED MONTHS IN THE CRUDE PETROLEUM AND NATURAL GAS INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES, AND BY TYPE OF OPERATION: 1954

Geographic division, State, and type of operation	Average employment for the year ¹	Number of employees in selected months			
		March	May	August	November
United States, total ²	172,506	169,631	172,211	175,466	169,964
GEOGRAPHIC DIVISION AND STATE					
Middle Atlantic, total.....	7,707	7,987	7,864	7,520	7,193
New York.....	2,345	2,393	2,337	2,340	2,273
Pennsylvania.....	5,362	5,594	5,527	5,180	4,920
East North Central, total.....	12,380	11,955	12,275	12,629	12,352
Ohio.....	3,349	3,275	3,331	3,383	3,351
Indiana.....	1,238	1,166	1,244	1,289	1,238
Illinois.....	6,428	6,198	6,349	6,589	6,403
Michigan.....	1,365	1,316	1,351	1,368	1,360
West North Central, total.....	10,378	10,128	10,383	10,568	10,133
Missouri.....	79	74	72	75	87
North Dakota.....	671	639	681	731	616
Nebraska.....	324	283	315	346	334
Kansas.....	9,238	9,081	9,258	9,339	9,020
Iowa and South Dakota.....	66	51	57	77	76
South Atlantic, total.....	4,136	3,952	4,060	4,309	4,102
West Virginia.....	3,837	3,686	3,787	3,970	3,791
Maryland, Virginia, Georgia, and Florida.....	299	266	273	339	311
East South Central, total.....	4,633	4,469	4,568	4,814	4,586
Kentucky.....	2,889	2,826	2,847	3,035	2,787
Tennessee.....	11	10	11	11	13
Alabama.....	104	104	105	141	60
Mississippi.....	1,629	1,529	1,605	1,627	1,726
West South Central, total.....	103,867	102,316	103,926	105,461	102,388
Arkansas.....	1,709	1,754	1,704	1,706	1,668
Louisiana.....	16,956	16,470	16,936	17,458	16,834
Oklahoma.....	22,046	21,756	21,802	22,124	21,583
Texas.....	63,156	62,336	63,484	64,173	62,303
Mountain, total.....	12,167	11,703	11,975	12,572	12,175
Montana.....	1,702	1,715	1,703	1,674	1,688
Wyoming.....	4,181	4,067	4,168	4,400	4,041
Colorado.....	2,340	2,160	2,162	2,435	2,502
New Mexico.....	3,249	3,106	3,244	3,328	3,264
Utah.....	569	613	615	556	480
Idaho, Arizona, and Nevada.....	126	42	83	179	200
Pacific, total.....	17,210	17,093	17,136	17,563	17,005
California.....	17,094	16,992	17,017	17,442	16,876
Washington and Oregon.....	116	101	119	121	129
TYPE OF OPERATION					
Producing operations, total.....	170,190	167,522	169,981	172,989	167,557
By type of well operated:					
Oil well operations only.....	43,027	42,514	43,467	43,683	42,374
Oil and gas wells operations.....	120,773	118,626	119,971	122,930	118,939
Gas well operations only.....	6,390	6,382	6,543	6,376	6,244
By type of contract work:					
No contract work.....	11,486	11,639	11,771	11,505	11,109
Including contract work performed by others only.....	119,823	117,243	119,309	122,156	118,537
Including contract work performed for others only.....	1,466	1,479	1,441	1,461	1,422
Including contract work performed by and for others.....	37,415	37,161	37,460	37,867	36,489
Operating, maintaining, and drilling wells, total.....	155,158	152,369	154,842	157,894	152,793
Oil well operations only.....	32,372	31,763	32,764	32,982	31,927
Oil and gas well operations.....	118,177	116,019	117,336	120,312	116,366
Gas well operations only.....	4,609	4,587	4,742	4,600	4,500
Operating and maintaining wells only, total..	15,032	15,153	15,139	15,095	14,764
Oil well operations only.....	10,655	10,751	10,703	10,701	10,447
Oil and gas well operations.....	2,596	2,607	2,635	2,618	2,573
Gas well operations only.....	1,781	1,795	1,801	1,776	1,744
Nonproducing operations.....	2,316	2,109	2,230	2,477	2,407

¹Represents the sum of the average employment figures for the year as shown in the separate establishment reports. These are the averages shown in other tables of this report. Because of roundings, the sum of such figures may differ slightly from the average of the specified monthly totals shown above.

²Includes 28 salaried employees at central offices in Connecticut, Minnesota, Iowa, and North Carolina. These employees are excluded from the geographic divisions and States, but are classified by type of operations.

Table 8.—GENERAL STATISTICS FOR ESTABLISHMENTS CLASSIFIED BY OUTPUT PER-MAN HOUR: 1954

[Such statistics were not compiled for these industries]

Table 9.—GENERAL STATISTICS FOR ESTABLISHMENTS CLASSIFIED BY RATIO OF WAGES AND SALARIES TO VALUE ADDED IN MINING: 1954

[Such statistics were not compiled for these industries]

Table 10.—HORSEPOWER OF POWER EQUIPMENT USED IN THE CRUDE PETROLEUM AND NATURAL GAS INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES, AND BY TYPE OF OPERATION: 1954

(For explanation of column captions, see INTRODUCTION)

Geographic division, State, and type of operation	Aggregate horsepower per production worker	Aggregate horsepower (prime movers and electric motors driven by purchased energy) (1,000 hp)	Prime movers (1,000 horsepower)				Electric motors (1,000 horsepower)		
			Total	Highway type	All other equipment		Total	Driven by purchased energy	Driven by energy generated at the establishment
					Driving generators	Not driving generators			
United States, total.....	83	9,123	7,962	3,134	184	4,644	1,257	1,161	96
GEOGRAPHIC DIVISION AND STATE									
Middle Atlantic, total.....	66	370	308	96	2	210	62	62	(¹)
New York.....	63	65	55	15	...	40	10	10	...
Pennsylvania.....	66	305	253	81	2	170	52	52	(¹)
East North Central, total.....	65	570	466	179	12	275	116	104	12
Ohio.....	50	81	76	19	(¹)	57	5	5	(¹)
Indiana.....	68	55	40	20	3	17	17	15	2
Illinois.....	63	330	252	94	8	150	88	78	10
Michigan.....	90	104	98	46	1	51	6	6	(¹)
West North Central, total.....	87	698	615	243	8	364	84	83	1
Missouri.....	67	1	1	(¹)	...	1	(¹)	(¹)	...
North Dakota.....	83	31	31	27	(¹)	4	(¹)	(¹)	(¹)
Nebraska.....	121	31	29	13	(¹)	16	2	2	(¹)
Kansas.....	86	633	552	201	8	343	82	81	1
Iowa and South Dakota.....	91	2	2	2	...	(¹)	...	...	...
South Atlantic, total.....	58	201	194	49	1	144	7	7	(¹)
West Virginia.....	57	192	185	43	1	141	7	7	(¹)
Maryland, Virginia, Georgia, and Florida.....	76	9	9	6	...	3	(¹)	(¹)	...
East South Central, total.....	67	252	218	89	2	127	34	34	(¹)
Kentucky.....	46	120	95	38	2	55	25	25	(¹)
Tennessee.....	xxx	(¹)	(¹)	...	...	(¹)	(¹)	(¹)	...
Alabama.....	65	5	4	2	...	2	1	1	...
Mississippi.....	120	127	119	49	...	70	8	8	...
West South Central, total.....	80	4,933	4,364	1,701	117	2,546	617	569	48
Arkansas.....	93	113	97	39	...	58	16	16	...
Louisiana.....	80	926	881	216	48	617	57	45	12
Oklahoma.....	66	889	791	317	15	459	105	98	7
Texas.....	84	3,005	2,595	1,129	54	1,412	439	410	29
Mountain, total.....	97	681	617	364	24	229	80	64	16
Montana.....	124	109	103	61	3	39	6	6	(¹)
Wyoming.....	91	232	197	121	11	65	46	35	11
Colorado.....	128	120	113	60	4	49	10	7	3
New Mexico.....	83	187	171	99	2	70	17	16	1
Utah.....	76	24	24	15	4	5	1	(¹)	1
Idaho, Arizona, and Nevada.....	110	9	9	8	...	1	...	...	...
Pacific, total.....	128	1,418	1,180	413	18	749	257	238	19
California.....	128	1,417	1,179	412	18	749	257	238	19
Washington and Oregon.....	111	1	1	1	...	...	...	...	...
TYPE OF OPERATION									
Producing operations, total.....	83	9,032	7,872	3,076	182	4,614	1,256	1,160	96
By type of well operated:									
Oil well operations only.....	81	2,685	2,279	934	36	1,309	434	406	28
Oil and gas wells operations.....	86	6,130	5,382	2,072	143	3,167	816	748	68
Gas well operations only.....	45	217	211	70	3	138	6	6	(¹)
By type of contract work:									
No contract work.....	49	486	429	179	6	244	59	57	2
Including contract work performed by others only.....	88	6,515	5,696	2,257	137	3,302	895	819	76
Including contract work performed for others only.....	73	98	89	38	1	50	9	9	(¹)
Including contract work performed by and for others.....	82	1,933	1,658	602	38	1,018	293	275	18
Operating, maintaining, and drilling wells, total.....	85	8,181	7,123	2,805	175	4,143	1,151	1,058	93
Oil well operations only.....	87	2,105	1,785	730	30	1,025	345	320	25
Oil and gas well operations.....	86	5,914	5,178	2,021	143	3,014	804	736	68
Gas well operations only.....	46	162	160	54	2	104	2	2	(¹)
Operating and maintaining wells only, total..	65	851	749	271	7	471	105	102	3
Oil well operations only.....	65	580	494	204	6	284	89	86	3
Oil and gas well operations.....	97	216	204	51	...	153	12	12	...
Gas well operations only.....	41	55	51	16	1	34	4	4	...
Nonproducing operations, total.....	89	91	90	58	2	30	1	1	...

xxx Not applicable.

¹Less than 500 horsepower.

Table 11.—NUMBER OF POWER LOADING MACHINES, 1954 AND 1939, AND BY GEOGRAPHIC DIVISION, 1954

[Such statistics were not compiled for these industries]

Table 12.—SUPPLIES, OIL AND GAS FOR LEASE OPERATIONS, FUELS PURCHASED, AND ELECTRIC ENERGY

(For explanation of line

Item	United States		Middle Atlantic			
	Quantity	Cost (\$1,000)	Total		New York	
			Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
1 Supplies used ¹	xxx	682,421	xxx	9,323	xxx	2,788
Oil and gas used, except for power and heat:						
2 Crude petroleum produced and used at the same establishment.....1,000 barrels..	966	xxx	1	xxx	...	xxx
3 Gas for gas lift and repressuring, total.....million cu. ft..	1,553,245	xxx	658	xxx	40	xxx
4 Gas lift (net).....do..	241,630	xxx	82	xxx	9	xxx
5 Repressuring, pressure maintenance, and cycling.....	1,311,615	xxx	576	xxx	31	xxx
6 Produced and used at same establishment.....	1,430,287	xxx	287	xxx	8	xxx
7 Purchased.....million cu. ft..	122,958	10,261	371	165	32	15
8 Fuels used, total.....million kwh equivalent..	139,323	xxx	2,059	xxx	462	xxx
9 Fuels produced and used at same establishment, total.....do....	107,301	xxx	1,221	xxx	244	xxx
10 Crude petroleum.....1,000 barrels..	664	xxx	1	xxx	...	xxx
11 Natural gas.....million cu. ft..	345,040	xxx	3,962	xxx	794	xxx
12 Fuels purchased, total.....million kwh equivalent..	32,022	36,177	838	1,537	218	367
13 Coal.....1,000 short tons..	2	18	(2)	2	(2)	2
14 Distillate fuel oil.....1,000 barrels..	1,464	5,242	18	91	4	8
15 Residual fuel oil.....do....	78	248	3	16	...	...
16 Natural gas.....million cu. ft..	78,613	10,000	2,254	1,006	635	297
17 Manufactured gas.....do....	89	17	14	8	1	(2)
18 Other fuels.....\$1,000..	xxx	20,652	xxx	414	xxx	60
19 Electric energy purchased.....million kwh..	2,332	30,624	103	1,616	14	228
20 Electric energy generated and used.....do....	260	xxx	1	xxx	...	xxx
West North Central						
	Total		Missouri		North Dakota	
	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
1 Supplies used ¹	xxx	40,709	xxx	77	xxx	5,864
Oil and gas used, except for power and heat:						
2 Crude petroleum produced and used at the same establishment.....1,000 barrels..	67	xxx	...	xxx	37	xxx
3 Gas for gas lift and repressuring, total.....million cu. ft..	1,946	xxx	...	xxx	7	xxx
4 Gas lift (net).....do..	328	xxx	...	xxx	7	xxx
5 Repressuring, pressure maintenance, and cycling.....	1,618	xxx	...	xxx	...	xxx
6 Produced and used at same establishment.....	1,544	xxx	...	xxx	7	xxx
7 Purchased.....million cu. ft..	402	92	...	...	...	...
8 Fuels used, total.....million kwh equivalent..	9,058	xxx	7	xxx	489	xxx
9 Fuels produced and used at same establishment, total.....do....	1,831	xxx	4	xxx	274	xxx
10 Crude petroleum.....1,000 barrels..	71	xxx	...	xxx	49	xxx
11 Natural gas.....million cu. ft..	5,555	xxx	13	xxx	618	xxx
12 Fuels purchased, total.....million kwh equivalent..	7,227	6,940	3	13	215	622
13 Coal.....1,000 short tons..	1	8	...	...	...	...
14 Distillate fuel oil.....1,000 barrels..	192	745	(2)	1	5	20
15 Residual fuel oil.....do....	22	75	...	...	4	23
16 Natural gas.....million cu. ft..	20,158	3,490	...	...	183	6
17 Manufactured gas.....do....	2	(2)	...	...	...	...
18 Other fuels.....\$1,000..	xxx	2,622	xxx	12	xxx	573
19 Electric energy purchased.....million kwh..	248	3,552	(2)	2	1	28
20 Electric energy generated and used.....do....	4	xxx	...	xxx	(2)	xxx

See footnotes at end of table.

CRUDE PETROLEUM AND NATURAL GAS

13B-99

USED IN THE CRUDE PETROLEUM AND NATURAL GAS INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954

captions, see INTRODUCTION)

Middle Atlantic—Continued		East North Central										
Pennsylvania		Total		Ohio		Indiana		Illinois		Michigan		
Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	
xxx	6,535	xxx	27,313	xxx	3,070	xxx	3,241	xxx	15,757	xxx	5,245	1
1	xxx	28	xxx	1	xxx	2	xxx	23	xxx	2	xxx	2
618	xxx	3,147	xxx	105	xxx	99	xxx	959	xxx	1,984	xxx	3
73	xxx	724	xxx	19	xxx	2	xxx	639	xxx	64	xxx	4
545	xxx	2,423	xxx	86	xxx	97	xxx	320	xxx	1,920	xxx	5
279	xxx	2,942	xxx	63	xxx	75	xxx	820	xxx	1,984	xxx	6
339	150	205	25	42	9	24	2	139	14	...	...	7
1,597	xxx	2,986	xxx	189	xxx	290	xxx	1,904	xxx	603	xxx	8
977	xxx	1,950	xxx	132	xxx	117	xxx	1,233	xxx	468	xxx	9
1	xxx	36	xxx	1	xxx	3	xxx	32	xxx	...	xxx	10
3,168	xxx	6,140	xxx	424	xxx	364	xxx	3,830	xxx	1,522	xxx	11
620	1,170	1,036	2,361	57	149	173	323	671	1,550	135	339	12
(2)	(2)	(2)	3	...	...	...	...	(2)	1	(2)	2	13
14	83	115	481	2	9	14	86	85	316	14	70	14
3	16	4	17	...	...	2	6	2	11	...	...	15
1,619	709	1,287	151	81	26	302	36	748	73	156	16	16
13	8	32	3	...	...	15	2	17	1	...	...	17
xxx	354	xxx	1,706	xxx	114	xxx	193	xxx	1,148	xxx	251	18
89	1,388	174	2,762	4	67	17	306	145	2,232	8	157	19
1	xxx	28	xxx	(2)	xxx	4	xxx	24	xxx	(2)	xxx	20
West North Central—Continued						South Atlantic						
Nebraska		Kansas		Iowa and South Dakota		Total		West Virginia		Maryland, Virginia, Georgia, and Florida		
Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	
xxx	2,222	xxx	32,294	xxx	252	xxx	6,807	xxx	5,446	xxx	1,361	1
5	xxx	24	xxx	1	xxx	1	xxx	1	xxx	...	xxx	2
...	xxx	1,939	xxx	...	xxx	1,399	xxx	1,399	xxx	...	xxx	3
...	xxx	321	xxx	...	xxx	105	xxx	105	xxx	...	xxx	4
...	xxx	1,618	xxx	...	xxx	1,294	xxx	1,294	xxx	...	xxx	5
...	xxx	1,537	xxx	...	xxx	1,299	xxx	1,299	xxx	...	xxx	6
...	...	402	92	...	...	100	22	100	22	...	...	7
329	xxx	8,230	xxx	3	xxx	903	xxx	885	xxx	18	xxx	8
135	xxx	1,418	xxx	...	xxx	761	xxx	751	xxx	10	xxx	9
1	xxx	21	xxx	...	xxx	2	xxx	2	xxx	...	xxx	10
433	xxx	4,491	xxx	...	xxx	2,463	xxx	2,429	xxx	34	xxx	11
194	281	6,812	6,013	3	11	142	285	134	257	8	28	12
...	...	1	8	...	...	...	...	...	...	...	...	13
11	62	176	662	...	...	1	8	1	8	...	...	14
14	34	4	17	(2)	1	...	...	...	...	...	...	15
448	140	19,527	3,344	...	...	274	53	270	51	4	2	16
...	...	2	(2)	...	...	...	...	...	...	...	...	17
xxx	45	xxx	1,982	xxx	10	xxx	224	xxx	198	xxx	26	18
3	50	244	3,471	(2)	1	5	79	5	78	(2)	1	19
(2)	xxx	4	xxx	...	xxx	(2)	xxx	(2)	xxx	...	xxx	20

Table 12.—SUPPLIES, OIL AND GAS FOR LEASE OPERATIONS, FUELS PURCHASED, AND ELECTRIC ENERGY

(For explanation of line

Item		East South Central							
		Total		Kentucky		Tennessee			
		Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)		
1	Supplies used ¹	xxx	16,951	xxx	6,628	xxx	23		
2	Oil and gas used, except for power and heat:								
	Crude petroleum produced and used at the same establishment.....1,000 barrels..	12	xxx	3	xxx	...	xxx		
3	Gas for gas lift and repressuring, total.....	63,967	xxx	896	xxx	...	xxx		
4	Gas lift (net).....million cu. ft..	3,037	xxx	206	xxx	...	xxx		
5	Repressuring, pressure maintenance, and cycling.....	60,930	xxx	690	xxx	...	xxx		
6	Produced and used at same establishment.....	57,453	xxx	699	xxx	...	xxx		
7	Purchased.....million cu. ft..	6,514	589	197	19	...	...
8	Fuels used, total.....million kwh equivalent..	3,216	xxx	815	xxx	1	xxx		
9	Fuels produced and used at same establishment, total.....do....	2,615	xxx	656	xxx	...	xxx		
10	Crude petroleum.....1,000 barrels..	1	xxx	1	xxx	...	xxx		
11	Natural gas.....million cu. ft..	8,495	xxx	2,128	xxx	...	xxx		
12	Fuels purchased, total.....million kwh equivalent..	601	1,067	159	431	1	3		
13	Coal.....1,000 short tons..	...	...	...	...	...	...
14	Distillate fuel oil.....1,000 barrels..	27	123	9	35	...	...
15	Residual fuel oil.....do....	...	...	...	...	...	...
16	Natural gas.....million cu. ft..	1,258	271	175	36	...	...
17	Manufactured gas.....do....	...	...	...	...	...	...
18	Other fuels.....\$1,000..	xxx	673	xxx	360	xxx	3		
19	Electric energy purchased.....million kwh..	42	659	23	410	1	6		
20	Electric energy generated and used.....do....	1	xxx	1	xxx	...	xxx		
		West South Central—Con.		Mountain					
		Texas		Total		Montana		Wyoming	
		Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
1	Supplies used ¹	xxx	243,152	xxx	73,162	xxx	6,099	xxx	19,655
2	Oil and gas used, except for power and heat:								
	Crude petroleum produced and used at the same establishment.....1,000 barrels..	237	xxx	178	xxx	39	xxx	52	xxx
3	Gas for gas lift and repressuring, total.....	824,417	xxx	37,697	xxx	308	xxx	11,169	xxx
4	Gas lift (net).....million cu. ft..	160,692	xxx	12,076	xxx	46	xxx	2,314	xxx
5	Repressuring, pressure maintenance, and cycling.....	663,725	xxx	25,621	xxx	262	xxx	8,855	xxx
6	Produced and used at same establishment.....	731,815	xxx	36,005	xxx	263	xxx	11,116	xxx
7	Purchased.....million cu. ft..	92,602	7,013	1,692	106	45	3	53	4
8	Fuels used, total.....million kwh equivalent..	48,526	xxx	11,410	xxx	572	xxx	6,152	xxx
9	Fuels produced and used at same establishment, total.....do....	37,948	xxx	9,366	xxx	370	xxx	5,042	xxx
10	Crude petroleum.....1,000 barrels..	54	xxx	50	xxx	...	xxx	25	xxx
11	Natural gas.....million cu. ft..	123,028	xxx	30,163	xxx	1,204	xxx	16,249	xxx
12	Fuels purchased, total.....million kwh equivalent..	10,578	10,327	2,044	3,012	202	411	1,110	1,157
13	Coal.....1,000 short tons..
14	Distillate fuel oil.....1,000 barrels..	379	1,031	85	444	13	56	39	206
15	Residual fuel oil.....do....	4	17	18	62	1	4	7	29
16	Natural gas.....million cu. ft..	26,786	2,592	4,407	475	346	65	2,839	303
17	Manufactured gas.....do....	34	4	7	2	7	2
18	Other fuels.....\$1,000..	xxx	6,683	xxx	2,029	xxx	286	xxx	617
19	Electric energy purchased.....million kwh..	694	9,528	115	1,668	10	176	72	865
20	Electric energy generated and used.....do....	44	xxx	49	xxx	2	xxx	34	xxx

xxx Not applicable.

¹Includes drill bits and reamers, drilling fluid materials, cement, lumber, pipe, parts for renewals and repairs, lubricants, and water purchased.²Less than one-half of the unit of measure specified.

USED IN THE CRUDE PETROLEUM AND NATURAL GAS INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954--Continued
captions, see INTRODUCTION)

East South Central—Continued				West South Central										
Alabama		Mississippi		Total		Arkansas		Louisiana		Oklahoma				
Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)			
xxx	546	xxx	9,754	xxx	433,834	xxx	6,975	xxx	124,543	xxx	59,164	1		
5	xxx	4	xxx	344	xxx	2	xxx	21	xxx	84	xxx	2		
...	xxx	63,071	xxx	1,192,261	xxx	26,504	xxx	241,477	xxx	99,863	xxx	3		
...	xxx	2,831	xxx	197,637	xxx	402	xxx	28,157	xxx	8,386	xxx	4		
...	xxx	60,240	xxx	994,624	xxx	26,102	xxx	213,320	xxx	91,477	xxx	5		
...	xxx	56,754	xxx	1,079,432	xxx	19,300	xxx	231,359	xxx	96,958	xxx	6		
...	...	6,317	570	112,829	9,110	7,204	1,010	10,118	656	2,905	431	7		
23	xxx	2,377	xxx	89,509	xxx	1,385	xxx	23,960	xxx	15,638	xxx	8		
16	xxx	1,943	xxx	71,076	xxx	412	xxx	21,107	xxx	11,609	xxx	9		
...	xxx	...	xxx	234	xxx	10	xxx	17	xxx	153	xxx	10		
53	xxx	6,314	xxx	229,691	xxx	1,282	xxx	68,500	xxx	36,881	xxx	11		
7	14	434	619	18,433	17,857	973	409	2,853	3,761	4,029	3,360	12		
...	...	...	...	(2)	1	...	...	...	...	(2)	1	13
1	3	17	85	935	2,725	4	24	501	1,421	51	249	14		
...	...	...	...	11	41	1	2	...	...	6	22	15
10	1	1,073	234	45,699	4,107	2,993	209	4,920	404	11,000	902	16		
...	...	...	...	34	4	...	...	...	...	...	...	17
xxx	10	xxx	300	xxx	10,979	xxx	174	xxx	1,936	xxx	2,186	18		
4	42	14	201	1,077	14,398	47	493	61	1,009	275	3,368	19		
...	xxx	...	xxx	131	xxx	...	xxx	71	xxx	16	xxx	20		
Mountain—Continued						Pacific								
Colorado		New Mexico		Utah		Idaho, Arizona, and Nevada		Total		California		Washington and Oregon		
Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	
xxx	11,872	xxx	30,166	xxx	3,912	xxx	1,458	xxx	74,322	xxx	74,290	xxx	32	1
42	xxx	43	xxx	1	xxx	1	xxx	335	xxx	335	xxx	...	xxx	2
15,254	xxx	10,966	xxx	...	xxx	...	xxx	252,170	xxx	252,170	xxx	...	xxx	3
34	xxx	9,682	xxx	...	xxx	...	xxx	27,641	xxx	27,641	xxx	...	xxx	4
15,220	xxx	1,284	xxx	...	xxx	...	xxx	224,529	xxx	224,529	xxx	...	xxx	5
15,106	xxx	9,520	xxx	...	xxx	...	xxx	251,325	xxx	251,325	xxx	...	xxx	6
148	15	1,446	84	845	152	845	152	...	xxx	7
1,848	xxx	2,599	xxx	231	xxx	8	xxx	20,182	xxx	20,182	xxx	(2)	xxx	8
1,666	xxx	2,148	xxx	138	xxx	2	xxx	18,481	xxx	18,481	xxx	...	xxx	9
10	xxx	15	xxx	...	xxx	...	xxx	269	xxx	269	xxx	...	xxx	10
5,359	xxx	6,899	xxx	450	xxx	2	xxx	58,571	xxx	58,571	xxx	...	xxx	11
182	428	451	656	93	336	6	24	1,701	3,118	1,701	3,116	(2)	2	12
...	1	4	1	4	13
10	69	14	89	8	19	1	5	91	625	91	625	14
10	28	(2)	1	20	37	20	37	15
229	28	993	79	3,276	447	3,276	447	16
...	17
xxx	303	xxx	487	xxx	317	xxx	19	xxx	2,005	xxx	2,003	xxx	2	18
9	172	24	452	(2)	3	568	5,890	568	5,890	19
7	xxx	1	xxx	5	xxx	...	xxx	46	xxx	46	xxx	...	xxx	20

Table 13.—WATER USE IN THE CRUDE PETROLEUM AND NATURAL GAS INDUSTRIES,

(For explanation of column

	Geographic division, State, and type of operation	Number of production and development workers	Value added in mining (\$1,000)	Water intake				
				Total			Fresh water (million gallons)	Brackish water (million gallons)
				Million gallons	Million gallons per production worker	Gallons per dollar value added		
1	United States, total.....	109,792	6,129,213	82,408	0.75	13	47,819	34,589
	GEOGRAPHIC DIVISION AND STATE							
2	Middle Atlantic, total.....	5,638	55,139	9,379	1.66	170	9,144	235
3	New York.....	1,027	7,965	1,875	1.83	235	1,865	10
4	Pennsylvania.....	4,611	47,174	7,504	1.63	159	7,279	225
5	East North Central, total.....	8,830	207,760	8,760	0.99	42	3,756	5,004
6	Ohio.....	1,614	12,528	270	0.17	22	124	146
7	Indiana.....	807	19,951	590	0.73	30	351	239
8	Illinois.....	5,250	150,753	7,499	1.43	50	3,227	4,272
9	Michigan.....	1,159	24,528	401	0.35	16	54	347
10	West North Central, total.....	8,042	296,266	7,855	0.98	27	1,051	6,804
11	Missouri.....	15	41	...	...	...	...	...
12	North Dakota.....	374	(2)	140	0.37	(2)	125	15
13	Nebraska.....	257	18,551	178	0.69	10	178	...
14	Kansas.....	7,374	285,117	7,535	1.02	26	746	6,789
15	Iowa and South Dakota.....	22	(2)	2	0.09	(2)	2	...
16	South Atlantic, total.....	3,486	46,870	374	0.11	8	373	1
17	West Virginia.....	3,368	48,525	369	0.11	8	368	1
18	Maryland, Virginia, Georgia, and Florida	118	(2)	5	0.04	(2)	5	...
19	East South Central, total ³	3,748	124,426	2,142	0.57	17	1,839	303
20	Kentucky.....	2,604	46,407	1,797	0.69	39	1,614	183
21	Alabama.....	77	1,181	2	0.03	2	2	...
22	Mississippi.....	1,057	76,874	343	0.32	4	223	120
23	West South Central, total.....	61,942	3,856,800	45,660	0.74	12	24,804	20,856
24	Arkansas.....	1,220	61,194	734	0.60	12	309	425
25	Louisiana.....	11,628	738,888	5,920	0.51	8	4,915	1,005
26	Oklahoma.....	13,431	433,563	11,921	0.89	27	3,099	8,822
27	Texas.....	35,663	2,623,155	27,085	0.76	10	16,481	10,604
28	Mountain, total.....	7,006	529,746	2,988	0.43	6	2,933	55
29	Montana.....	878	23,677	98	0.11	4	77	21
30	Wyoming.....	2,537	193,467	2,158	0.85	11	2,157	1
31	Colorado.....	939	107,149	354	0.38	3	348	6
32	New Mexico.....	2,255	209,219	322	0.14	2	295	27
33	Utah.....	315	(2)	53	0.17	(2)	53	...
34	Idaho, Arizona, and Nevada.....	82	(2)	3	0.04	(2)	3	...
35	Pacific, total.....	11,100	1,012,206	5,250	0.47	5	3,919	1,331
36	California.....	11,091	1,012,679	5,250	0.47	5	3,919	1,331
	TYPE OF OPERATION							
37	Producing operations, total.....	108,769	6,194,802	82,213	0.76	13	47,624	34,589
	By type of well operation:							
38	Oil wells only.....	32,970	1,138,685	19,903	0.60	17	10,421	9,482
39	Oil and gas wells.....	70,972	4,889,186	62,151	0.88	13	37,045	25,106
40	Gas wells only.....	4,827	166,931	159	0.03	1	158	1
	By type of contract work:							
41	No contract work.....	9,878	167,826	1,705	0.17	10	1,312	393
42	Including contract work performed by others only.....	73,928	4,594,126	57,443	0.78	13	35,279	22,164
43	Including contract work performed for others only.....	1,336	24,423	105	0.08	4	93	12
44	Including contract work by and for others.....	23,627	1,408,427	22,960	0.97	16	10,940	12,020
45	Operating, maintaining, and drilling wells, total.....	96,340	5,875,103	78,984	0.82	13	45,364	33,620
46	Oil well operations only.....	24,097	915,423	17,246	0.72	19	8,425	8,821
47	Oil and gas well operations.....	68,755	4,831,837	61,581	0.90	13	36,783	24,798
48	Gas well operations only.....	3,488	127,843	157	0.05	1	156	1
49	Operating and maintaining wells only, total.....	12,429	319,699	3,229	0.26	10	2,260	969
50	Oil well operations only.....	8,873	223,262	2,657	0.30	12	1,996	661
51	Oil and gas well operations.....	2,217	57,349	570	0.26	10	262	308
52	Gas well operations only.....	1,339	39,088	2	(1)	(1)	2	...
53	Nonproducing operations.....	1,023	(2)	195	0.19	(2)	195	...

¹Less than one-half of the unit of measure specified.²Value added is not shown since the combined cost of supplies, gas purchased for gas lift and repressuring, fuel, purchased electric energy, contract work, and purchased machinery installed exceeded the sum of the value of shipments and capital expenditures. See INTRODUCTION, "Value added in Mining."³No water use was reported for Tennessee.

BY GEOGRAPHIC DIVISIONS AND STATES AND BY TYPE OF OPERATION: 1954

captions, see INTRODUCTION)

Water used for flooding included in total intake (million gallons)			Water discharged, except water used for flooding (million gallons)			Percent of total fresh water intake by principal source							
Total	Fresh water	Brackish water	Total	Fresh water	Brackish water	Public water systems	Company surface water systems	Company ground water systems	Combined company surface and ground water systems	Other combina- tions of water systems	Not specified		
46,540	20,105	26,435	133,844	10,539	123,305	2	14	70	7	1	6	1	
8,892	8,658	234	3,959	2,673	1,286	1	1	87	...	...	11	2	
1,800	1,790	10	671	362	309	1	(1)	80	...	...	19	3	
7,092	6,868	224	3,288	2,311	977	1	2	89	(1)	...	8	4	
7,765	3,538	4,227	5,813	469	5,344	(1)	22	62	12	1	3	5	
253	108	145	23	...	23	1	21	40	...	...	38	6	
576	346	230	249	21	228	(1)	...	88	9	...	3	7	
6,712	3,082	3,630	4,419	432	3,987	(1)	25	59	13	1	2	8	
224	2	222	1,122	16	1,106	...	6	70	2	...	22	9	
6,404	609	5,795	10,634	998	9,636	6	47	28	5	2	12	10	
...	...	...	4	...	4	...	...	...	...	...	...	11	
...	...	...	7	...	7	...	2	94	...	...	4	12	
...	...	...	206	...	206	3	90	6	...	...	1	13	
6,404	609	5,795	10,416	998	9,418	8	43	22	8	4	15	14	
...	...	...	1	...	1	...	...	...	...	...	...	15	
250	250	...	116	91	25	...	85	5	10	...	(1)	16	
250	250	...	91	91	...	...	85	5	10	...	(1)	17	
...	...	...	25	...	25	...	100	...	...	...	...	18	
1,041	881	160	2,316	744	1,572	(1)	47	22	12	...	19	19	
1,036	876	160	917	721	196	...	46	20	14	...	20	20	
...	...	...	202	...	202	...	...	100	...	...	...	21	
5	5	...	1,197	23	1,174	(1)	49	33	1	...	17	22	
20,785	5,633	15,152	90,458	4,397	86,061	(1)	7	78	9	(1)	6	23	
679	256	423	1,281	6	1,275	...	1	91	...	...	8	24	
1,013	434	579	28,692	2,901	25,791	(1)	17	68	6	(1)	9	25	
11,172	2,643	8,529	8,864	202	8,662	1	17	48	28	...	6	26	
7,921	2,300	5,621	51,621	1,288	50,333	(1)	2	87	7	(1)	4	27	
478	441	37	3,821	403	3,418	3	66	24	2	1	4	28	
15	...	15	195	2	193	1	16	75	...	...	8	29	
391	391	...	2,246	339	1,907	(1)	79	18	3	(1)	(1)	30	
...	...	...	286	6	280	2	70	10	3	7	8	31	
72	50	22	1,076	56	1,020	19	...	63	...	(1)	18	32	
...	...	...	18	...	18	...	40	58	...	...	2	33	
...	...	...	...	...	...	...	...	100	...	...	...	34	
925	95	830	16,727	764	15,963	16	(1)	74	...	8	2	35	
925	95	830	16,727	764	15,963	16	(1)	74	...	8	2	36	
46,485	20,050	26,435	133,815	10,522	123,293	2	13	70	7	1	7	37	
14,583	7,174	7,409	25,220	1,715	23,505	4	19	55	4	2	16	38	
31,874	12,848	19,026	108,466	8,761	99,705	2	12	74	7	1	4	39	
28	28	...	129	46	83	3	6	67	5	4	15	40	
1,420	1,068	352	1,169	101	1,068	4	...	77	4	...	15	41	
28,479	11,569	16,910	106,599	6,688	99,911	3	15	68	5	1	8	42	
38	32	6	98	31	67	3	18	18	33	...	28	43	
16,548	7,381	9,167	25,949	3,702	22,247	1	9	76	11	(1)	3	44	
43,628	18,032	25,596	121,637	10,234	111,403	2	14	70	7	1	6	45	
12,249	5,386	6,863	14,481	1,487	12,994	5	23	51	5	2	14	46	
31,351	12,618	18,733	107,050	8,723	98,327	2	12	74	7	1	4	47	
28	28	...	106	24	82	3	5	68	5	4	15	48	
2,857	2,018	839	12,178	288	11,890	3	3	73	1	...	20	49	
2,334	1,788	546	10,739	228	10,511	3	(1)	73	2	...	22	50	
523	230	293	1,416	38	1,378	...	7	83	...	...	10	51	
...	...	...	23	22	1	...	50	50	...	...	...	52	
55	55	...	29	17	12	1	35	58	...	...	6	53	

Natural Gas Liquids

This report shows 1954 Census of Mineral Industries statistics for establishments classified in the Natural Gas Liquids Industries which include Industry 1314, Natural Gasoline, and Industry 1315, Cycle Condensate. The natural gasoline industry represents establishments primarily engaged in producing natural gasoline and liquefied petroleum gases from natural gas. The cycle condensate industry represents establishments primarily engaged in producing cycle condensate and derived liquids at establishments cycling the natural gas back into the ground.

For census purposes, the distinction between the two natural gas liquids industries was based on the respondents reply to a check-box inquiry asking for type of plant as either "natural gasoline plant" or "cycle condensate plant." In general, plants were excluded from these industries if the ratio of barrels of natural gas liquids recovered to million cubic feet of gas processed was less than 6.

This report does not include the recovery of natural gas liquids as a secondary activity in dehydration, pressure maintenance, and boosting plants. Insofar as such operations are associated with natural gas transmission lines they are not within the scope of the 1954 economic censuses (manufactures, mineral industries, and business). However, the production of condensate and drip gasoline from wellhead fittings in the oil and gas fields is included in the 1954 Census of Mineral Industries report "Crude Petroleum and Natural Gas." Also, excluded from this report is the production of liquefied gases from petroleum refinery gases. Such production is included in the 1954 Census of Manufactures report "Petroleum Refining." The shipments of these related products as covered in the 1954 economic censuses is summarized in the following table:

NET SHIPMENTS OF NATURAL GAS LIQUIDS AND
RELATED PRODUCTS COVERED IN THE 1954
ECONOMIC CENSUSES

Industry and product	Shipments in 1954	
	Quantity (1,000 barrels)	Value (\$1,000)
Natural gas liquids industries:		
Net natural gas liquids, total.....	252,067	576,828
Natural gasoline and cycle condensate	106,966	322,421
Liquefied petroleum gases.....	123,952	179,989
Finished gasoline, kerosene, distillate oils, and residual oils.....	21,149	74,418
Crude petroleum and natural gas and oil and gas field contract services industries:		
Field condensate and drips.....	25,606	77,161
Petroleum refining and other manu- facturing industries:		
Net liquefied refinery gases.....	43,048	¹ 260,225

¹Estimated on the basis of the unit value for gross shipments.

Statistics are not available to indicate the production of natural gas liquids in transmission line operations.

The number of natural gas liquids plants operated in 1954 was 582, with 12 percent having less than 5 employees; as compared with 736 plants operated in 1939, with about 40 percent having less than 5 employees. The reduction in number of plants is particularly large in some States, such as from 107 in 1939 to 11 in 1954 in Pennsylvania, from 53 to 8 in Illinois, from 78 to 41 in West Virginia, and from 139 to 79 in Okla-

homa. The number of establishments with more than 50 employees increased, however, from about 12 to 86. Although there was a significant reduction in the number of small natural gas liquids plants between 1939 and 1954, the reduction in the figures shown is explained in part by two other factors: (1) The 1939 statistics probably include as separate plants some wellhead units which are covered as part of oil and gas field operations in 1954. However, the number of the latter type of operations probably declined between 1939 and 1954. (2) Some smaller operations were included for 1939 than for 1954 because of the method used to determine which plants should be excluded as too small to be within the scope of the census. For 1954, this determination was made independently for each plant, irrespective of whether it was operated by a company operating other establishments which were included in the census. For 1939, all natural gas liquids plants were included if all oil and gas field and natural gas liquids operations of the company combined amounted to enough to come within the scope of the census. (The cut-off for 1939, nevertheless, was \$2,500 as compared with \$500 for 1954.)

Although a separate report was requested for each natural gasoline and cycle condensate plant, in reporting unitized operations, some flexibility was permitted. If it was particularly difficult, in such cases, for the operator to prepare separate reports for each plant, a consolidated report was accepted, provided it did not include operations in more than one county. The acceptance of such consolidated reports explains the difference between the counts of number of establishments and number of plants.

The cost of natural gas received for processing and the value of residue gas sold has not been collected in the minerals censuses. This was because such a large portion of the gas is not purchased for processing, but either transferred from other operations of the same company or processed on a contract basis for others. The total value of direct products of the industry, however, was obtained, since respondents were requested to include the estimated value of natural gas liquids produced from gas processed for others on a contract basis.

It was not possible to compute very precise figures for value added in mining without these data on cost of materials input and cost of residue gas used for plant fuel. Hence, value added in mining for the natural gas liquids industries is not shown in this report. In summary reports for all crude petroleum and natural gas extraction industries and for all mineral industries, however, an estimated value added for the natural gas liquids industries is included. In making this estimate, the cost of the materials input and the cost of residue gas used for plant fuel was estimated as 20 percent of the value of the recovered liquids.

The total value of shipments of the natural gas liquids industries amounted to \$640 million, excluding the value of residue gas sold. The gross shipments of natural gas liquids amounted to \$634 million and \$6 million represented shipments of other products and receipts for services such as boosting and hauling. The gross shipments of natural gas liquids included \$58 million for natural gas liquids transferred to other plants in these industries for further processing and \$577 million representing the net shipments of natural gas liquids to other industries. In order to avoid duplication in the figures for individual products of the natural gas liquids industries, most of the detailed quantity and value figures shown in this report are in terms of net production and shipments, excluding natural gas liquids transferred to other plants in the same industry such as transfers from an associated plant to a central fractionator. At the United States total level, both gross and net figures are shown for production and shipments of natural

gas liquids. Such figures cannot be shown for geographic divisions or individual States without approximately disclosing data for individual companies. For 1939, figures were not collected on the amount of natural gas liquids transferred for further processing, however, it is believed that such transfers were negligible.

The total value of shipments of the natural gasoline industry, in 1954, was \$508 million and the value of shipments of the cycle condensate industry was \$133 million. The natural gasoline industry shipped 20 percent of the total net shipments of raw cycle condensate while the cycle condensate industry shipped 16 percent of the total net shipments of natural gasoline. Shipments of liquefied petroleum gases from the natural gasoline industry amounted to 108 million barrels as compared with 16 million for the cycle condensate industry. Shipments of finished gasoline, kerosene, distillate oil, and residual oil from the natural gasoline industry amounted to 12 million barrels and the shipments of such products from the cycle condensate industry were 10 million barrels. Separate statistics were not tabulated for the natural gasoline and the cycle condensate industries for 1939.

For a few small establishments, it was not feasible for the respondent to provide separate employment data for its natural gasoline plants and for its oil and gas field operations, since the same employees were engaged in both activities. All such employment figures were included in the crude petroleum and natural gas reports. In 1954, there were only ten such estab-

lishments with total value of shipments amounting to less than one-tenth of one percent of the total value of shipments of the natural gasoline industry.

The 1954 Census of Mineral Industries obtained the first statistics on water use at natural gasoline plants. The statistics obtained show water intake by use, by kind, and for fresh water, by source. Also shown is water discharge; gross water use, including recirculation; and water treated. These figures are comparable to the statistics obtained in the 1954 Census of Manufactures and are in greater detail than for other reports in the minerals census.

The 1954 Census of Mineral Industries also obtained the first statistics on storage capacity at natural gasoline and cycle condensate plants. Figures are shown for the total storage capacity, by State, for natural gasoline and cycle condensate, and separately for underground storage and above ground storage of liquefied petroleum gases.

The census report form used for the natural gas liquids industries also provided information required by the Bureau of Mines for its annual statistics on natural gasoline, cycle condensate, and liquefied petroleum gas. The Bureau of Mines statistics, however, are not exactly comparable with those shown by the Bureau of the Census, since the Mines statistics include some data for natural gas liquids recovered incident to operation of transmission lines and for natural gas liquids recovered in oil field operations.

Table 1.--COMPARATIVE STATISTICS FOR THE NATURAL GAS LIQUIDS INDUSTRIES: 1954 AND 1939

(For explanation of line captions and for statement on the minimum size of establishments included for each year, see INTRODUCTION)

Item	1954			1939 ¹
	Total	Natural gasoline industry	Cycle condensate industry	
Number of operating companies.....	181	167	30	295
Number of establishments.....	562	521	41	(NA)
Number of plants.....	582	540	42	736
Net production of natural gas liquids.....1,000 barrels..	255,450	207,370	48,080	60,825
Gross shipments of natural gas liquids ².....do....	287,786	240,026	47,760	(NA)
Natural gas liquids transferred for further processing.....do....	35,719	35,719	...	(³)
Net shipments of natural gas liquids ².....do....	252,067	204,307	47,760	(NA)
Value of shipments, total ².....\$1,000..	640,422	507,655	132,767	96,338
Natural gas liquids transferred for further processing.....do....	57,556	57,556	...	(³)
Net shipments, total ².....do....	582,866	450,099	132,767	96,338
Natural gas liquids ².....do....	576,828	444,426	132,402	96,185
Other products and services.....do....	6,038	5,673	365	153
Number of persons engaged, total.....	17,412	15,114	2,298	10,347
Production and related workers ⁴	13,560	11,740	1,820	8,332
All other employees.....	3,780	3,305	475	2,005
Proprietors and firm members.....	72	69	3	10
Performing manual labor.....	13	13	...	2
Man-hours worked by production and related workers ⁴	27,862	24,119	3,743	16,634
Natural gas liquids net shipments per man-hour.....1,000 barrels..	9.04	8.47	12.73	⁵ 6.57
Principal expenses designated below, total ⁶.....\$1,000..	228,384	208,006	20,378	37,856
Wages of production and related workers ⁴.....do....	63,983	55,114	8,869	13,212
Salaries of all other employees.....do....	21,074	18,245	2,829	5,052
Natural gas liquids received for further processing.....do....	57,556	57,556	...	(³)
Supplies ⁶.....do....	43,891	37,534	6,357	8,653
Fuel ⁷.....do....	1,964	1,929	35	6,600
Purchased electric energy.....do....	3,190	2,996	194	355
Contract work.....do....	36,726	34,632	2,094	3,984
Purchased machinery installed.....do....	65,752	60,913	4,839	(NA)
Capital expenditures, total.....do....	109,959	102,277	7,682	13,030
New construction and major alterations of fixed plants ⁸.....do....	55,794	53,188	2,606	1,461
New machinery and equipment.....do....	51,227	46,160	5,067	10,620
Used plant and equipment.....do....	2,938	2,929	9	949
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....1,000..	2,902	2,536	366	772
Per production worker.....	214	216	201	93
Prime movers.....1,000..	2,808	2,447	361	757
Electric motors driven by purchased energy.....do....	94	89	5	15
Horsepower rating of electric motors driven by energy generated at the establishment.....do....	208	172	36	26
Energy used.....million kwh equivalent..	113,449	93,782	19,667	54,979
Residue gas.....million cu. ft..	352,296	288,483	63,813	} 177,770
Purchased fuels and electric energy:				
Natural gas.....do....	15,087	15,070	17	
Fuel oils.....1,000 barrels..	7	7	...	54
Bituminous coal.....1,000 short tons..	...	...	...	20
Electric energy purchased.....million kwh..	321	302	19	37
Electric energy generated and used.....do....	936	759	177	129

NA Not available.

¹Except for number of plants, excludes data for 2 nonproducing establishments in Texas. Statistics for these establishments are included with those for nonproducing crude petroleum and natural gas operations. See the "Crude Petroleum and Natural Gas" report.²The gross figures for natural gas liquids, and the total value of shipments, contain duplications since they include data for natural gas liquids transferred for further processing. The "net" figures exclude this duplication. For 1939, figures represent production.³Not reported for 1939. It is believed that the amount of natural gas liquids transferred to other plants for further processing in 1939 was very small, if any.⁴Excludes production workers, man-hours, and wages for certain plants which were operated in conjunction with oil and gas wells, and which did not report separate figures for these items. The value of products for such plants represents the following percentages of the value of products of all plants in each State for 1954 and 1939, respectively: Pennsylvania, 9.6 percent and 6.6 percent; Illinois, none and 3.7 percent; Ohio, 1.5 percent and 0.2 percent; West Virginia, 0.03 percent and 0.2 percent; Arkansas, none and 0.1 percent; Louisiana, 0.5 percent and 0.1 percent; Texas, 0.01 percent and less than 0.05 percent; California, 0.08 percent and less than 0.05 percent; and for all other States, none and less than 0.05 percent.⁵Represents production.⁶Excludes the cost of gas processed as well as the value of the liquids contained.⁷For 1954, excludes the value of residue gas used for fuel at the processing plant. For 1939, includes the value of such gas.⁸Includes capital expenditures for storage facilities at natural gasoline and cycle condensate plants.

Table 2.—COMPARATIVE STATISTICS FOR THE NATURAL GAS LIQUIDS INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954 AND 1939
(For explanation of column captions, see INTRODUCTION. For 1939, except for number of plants, excludes data for nonproducing establishments)

Geographic division, State, and year	Number of operat- ing compa- nies	Number of plants	Net ship- ments of natural gas liquids ¹ (1,000 barrels)	Value of ship- ments (\$1,000)	Number of employees		Designated principal expenses (\$1,000)							Aggregate horse- power rating of power equipment (1,000)
					Produc- tion workers	All other em- ployees	Wages of production and de- velopment workers	Salaries of all other em- ployees	Supplies and natu- ral gas liquids received for fur- ther pro- cessing ²	Fuels ³	Pur- chased elec- tric energy	Con- tract work		
United States.1954...	181	582	252,067	640,422	13,560	3,780	63,983	21,074	101,447	1,964	3,190	36,726	2,902	
1939...	295	736	60,824	96,338	8,332	42,005	13,212	45,052	8,653	6,600	355	3,984	772	
Middle Atlantic (Pennsylvania)..1954...	6	11	138	405	37	...	106	...	81	56	9	18	3	
1939 ⁵ ...	70	107	307	594	134	12	156	20	47	236	6	12	5	
East North Central, total.....1954...	10	13	7,317	13,180	269	35	1,261	172	932	23	107	192	29	
1939 ⁶ ...	(NA)	65	315	656	151	14	208	27	86	55	1	30	8	
Illinois.....1954...	5	8	7,215	12,914	244	33	1,143	167	864	14	107	192	25	
1939...	22	53	132	288	69	4	82	7	26	8	1	3	5	
Ohio and Michigan.....1954...	5	5	102	266	25	2	118	5	68	9	...	...	4
1939 ⁶ ...	7	12	183	368	82	10	126	20	60	47	...	27	3	
West North Central (North Dakota, Nebraska, and Kansas).....1954...	14	16	4,919	8,757	329	59	1,514	349	784	106	85	2,964	76	
1939 ⁷ ...	11	18	1,593	2,140	218	35	321	65	152	203	9	25	18	
South Atlantic (West Virginia)..1954...	8	41	6,528	10,512	406	24	1,767	126	1,451	196	72	...	49	
1939...	24	78	1,883	3,396	774	120	880	233	923	616	8	2	21	
East South Central, total.....1954...	7	9	6,302	9,785	224	12	1,080	78	827	12	15	419	46	
1939...	4	6	570	706	63	3	85	8	227	64	1	...	2	
Kentucky.....1954...	5	6	5,322	7,445	175	5	839	26	546	10	10	344	38	
1939...	4	6	570	706	63	3	85	8	227	64	1	...	2	
Mississippi...1954 ⁸ ...	2	3	980	2,340	49	7	241	52	281	2	5	75	8	
West South Central, total.....1954...	138	379	181,770	456,236	9,623	3,214	45,847	17,454	85,953	1,394	2,176	23,092	2,118	
1939...	(NA)	348	38,711	49,067	5,222	1,168	8,276	2,904	5,422	3,739	201	3,280	492	
Arkansas.....1954...	9	9	2,572	5,811	210	48	977	273	561	7	81	50	40	
1939...	7	9	591	940	89	14	138	25	78	110	1	1	7	
Louisiana.....1954...	29	52	22,159	61,515	1,010	191	4,897	1,034	6,777	42	148	7,176	173	
1939...	16	29	2,353	3,482	349	82	496	349	408	194	12	133	30	
Oklahoma.....1954...	36	79	22,356	42,539	1,670	714	7,501	4,023	6,798	64	221	3,945	395	
1939...	55	139	11,539	16,394	2,018	403	3,316	934	1,670	1,569	61	270	207	
Texas.....1954...	103	239	134,682	346,371	6,733	2,261	31,672	12,124	71,817	1,281	1,726	11,921	1,510	
1939...	90	171	24,228	28,251	2,766	669	4,326	1,596	3,266	1,866	127	2,876	248	
Mountain, total..1954...	24	35	13,798	27,623	881	126	4,218	715	5,172	93	148	7,401	210	
1939...	(NA)	18	2,273	3,647	329	44	551	88	308	250	1	129	35	
Wyoming.....1954...	9	10	2,219	5,667	255	42	1,215	268	773	8	81	1,534	43	
1939...	5	7	731	1,568	157	16	274	37	104	25	...	119	19	
New Mexico.....1954...	11	19	10,540	19,386	557	70	2,663	361	4,213	81	57	5,857	141	
1939...	5	6	1,384	1,765	138	20	232	40	173	198	...	10	14	
Montana and Colorado.....1954...	6	6	1,039	2,570	69	14	340	86	186	4	10	10	26	
1939 ⁹ ...	5	5	158	314	34	8	45	11	31	27	1	...	2	
Pacific (Cali- fornia).....1954...	25	78	31,295	113,924	1,791	310	8,990	2,180	6,247	84	578	2,640	371	
1939...	37	96	15,172	36,132	1,441	585	2,735	1,640	1,488	1,437	128	506	191	

Footnotes for Table 2 on next page.

Footnotes for table 2

¹See table 1, footnote 2.

²For 1939, excludes natural gas liquids received for further processing. See table 1, footnote 3. Note that statistics in this column are not directly comparable to those in the "Value of shipments" column, which represent total shipments and include the value of secondary products and services.

³See table 1, footnote 7.

⁴Includes statistics for 24 salaried employees, paid \$68,000, at central offices in Missouri and Oregon.

⁵Figures for one natural gasoline plant in New York are included with figures for Montana and Colorado.

⁶Figures for one natural gasoline plant in Michigan are included with figures for Montana and Colorado.

⁷For 1939, no operations were reported in North Dakota and Nebraska.

⁸For 1939, no operations were reported in Mississippi.

⁹Represents one plant in Montana, 2 plants in Colorado, and also, figures for one plant in New York and one in Michigan for which separate data cannot be published.

Table 3.—DETAILED STATISTICS FOR THE NATURAL GAS LIQUIDS

(For explanation of line

	Item	United States				East North Central ¹			West North Central (North Dakota, Nebraska, and Kansas) ¹	South Atlantic (West Virginia) ¹
		Total	Natural gasoline industry	Cycle condensate industry	Middle Atlantic ¹ (Pennsylvania)	Total	Illinois	Ohio and Michigan		
1	Number of operating companies.....	181	167	30	6	10	5	5	14	8
2	Number of establishments.....	562	521	41	10	13	8	5	16	41
3	Number of plants.....	582	540	42	11	13	8	5	16	41
4	Net production of natural gas liquids ³.....1,000 barrels..	255,450	207,370	48,080	139	7,405	7,303	102	4,930	6,484
5	Net shipments of natural gas liquids ³.....do....	252,067	204,307	47,760	138	7,317	7,215	102	4,919	6,528
6	Value of shipments, total.....\$1,000..	640,422	507,655	132,767	405	13,180	12,914	266	8,757	10,512
7	Net shipments of natural gas liquids ³.....do....	576,828	444,426	132,402	405	13,180	12,914	266	8,726	10,512
8	Natural gas liquids transferred for further processing and other products and services..do....	63,594	63,229	365	...	...	...	...	31	...
9	Number of persons engaged, total.....	17,412	15,114	2,298	37	304	277	27	388	430
10	Production and related workers ⁴	13,560	11,740	1,820	37	269	244	25	329	406
11	All other employees.....	3,780	3,305	475	...	35	33	2	59	24
12	Proprietors and firm members.....	72	69	3	...	...	...	...	...	...
13	Performing manual labor.....	13	13	...	...	...	...	...	...	...
14	Man-hours worked by production and related workers ⁴.....1,000..	27,862	24,119	3,743	61	551	502	49	650	807
15	Natural gas liquids net shipments per man-hour.....1,000 barrels..	9.04	8.47	12.76	2.26	13.28	14.37	2.08	7.57	8.09
16	Principal expenses designated below, total ⁵ ..\$1,000..	228,384	208,006	20,378	270	2,687	2,487	200	5,802	3,612
17	Wages of production and development workers ⁴.....do....	63,983	55,114	8,869	106	1,261	1,143	118	1,514	1,767
18	Salaries of all other employees.....do....	21,074	18,245	2,829	...	172	167	5	349	126
19	Supplies and natural gas liquids received for further processing.....do....	101,447	95,090	6,357	81	932	864	68	784	1,451
20	Fuel ⁶.....do....	1,964	1,929	35	83	322	313	9	106	85
21	Purchased electric energy.....do....	3,190	2,996	194						
22	Contract work.....do....	36,726	34,632	2,094						
23	Purchased machinery installed.....do....	65,752	60,913	4,839	27	30	30	...	5,208	372
24	Capital expenditures, total.....do....	109,959	102,277	7,682	39	243	243	...	8,141	451
25	New construction and major alterations of fixed plants ⁷.....do....	55,794	53,188	2,606	5	239	239	...	2,951	19
26	New machinery and equipment.....do....	51,227	46,160	5,067	34	4	4	...	4,933	432
27	Used plant and equipment.....do....	2,938	2,929	9	...	...	...	...	257	...
28	Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....1,000..	2,902	2,536	366	3	29	25	4	76	49
29	Per production worker.....	214	216	201	70	106	102	169	230	121
30	Prime movers.....1,000..	2,808	2,447	361	2	27	23	4	74	47
31	Electric motors driven by purchased energy..do....	94	89	5	1	2	2	...	2	2
32	Horsepower rating of electric motors driven by energy generated at the establishment.....do....	208	172	36	...	2	2	...	9	1
33	Energy used.....million kwh equivalent..	113,449	93,782	19,667	57	2,446	2,384	62	1,752	1,042
34	Residue gas.....million cu. ft..	352,296	288,483	63,813	40	7,874	7,699	175	4,928	2,621
35	Purchased fuel and electric energy:									
36	Natural gas.....do....	15,087	15,070	17	144	36	(D)	(D)	733	(D)
37	Fuel oils.....1,000 barrels..	7	7	...	...	...	...	...	...	...
38	Other fuels.....\$1,000..	301	268	33	...	12	(D)	(D)	9	...
39	Electric energy purchased.....million kwh..	321	302	19	1	9	9	...	8	(D)
40	Electric energy generated and used.....do....	936	759	177	...	7	7	...	24	(D)
41	Water intake.....million gallons..	67,262	52,614	14,648	491	378	354	24	507	7,078
42	Per production worker.....do....	4.96	4.48	8.05	13.27	1.41	1.45	0.96	1.54	17.43
43	Bulk storage capacity:									
44	Gasoline and cycle condensate.....1,000 barrels..	7,408	5,593	1,815	50	47	44	3	127	161
45	1,000 gallon equivalent..	311,136	234,906	76,230	2,100	1,974	1,848	126	5,334	6,762
46	Liquified petroleum gas, total.....1,000 barrels..	8,404	7,899	505	1	314	313	1	244	29
47	1,000 gallon equivalent..	352,968	331,758	21,210	42	13,188	13,146	42	10,248	1,218
48	Underground storage.....1,000 barrels..	5,331	5,280	51	...	314	313	1	244	...
49	Above ground storage.....do....	3,073	2,619	454	1					

D Withheld to avoid approximately disclosing figures for individual companies.

¹Represents statistics for natural gasoline plants only. No cycle condensate plants were reported for 1954.²Represents statistics for both natural gasoline plants and cycle condensate plants: Mississippi, 2 gasoline plants and 1 cycle condensate plant; Arkansas, 8 gasoline plants and 1 cycle condensate plant; Louisiana, 46 gasoline plants and 6 cycle condensate plants; Oklahoma, 77 gasoline plants and 2 cycle condensate plants; and California, 76 natural gasoline plants and 2 cycle condensate plants.³Net figures represent gross less natural gas liquids transferred for further processing. (See table 1, footnote 2).

INDUSTRIES, BY GEOGRAPHIC DIVISION AND STATE: 1954

ceptions, see INTRODUCTION)

East South Central			West South Central									Mountain ¹				Pacifi- c (Calif- ornia) ²		
Total	Ken- tucky ¹	Missis- sippi ²	Total			Arkan- sas ²	Louisi- ana ²	Okla- homa ²	Texas			Total	Wyo- ming	New Mexico	Mon- tana and Colo- rado			
			Both in- dus- tries	Nat- ural gas- line in- dustry	Cycle conden- sate in- dustry				Total	Nat- ural gas- line in- dustry	Cycle con- densate in- dustry							
7	5	2	138	123	30	9	29	36	103	90	24	24	9	11	6	25	1	
9	6	3	367	329	38	9	52	75	231	204	27	34	10	18	6	72	2	
9	6	3	379	340	39	9	52	79	239	211	28	35	10	19	6	78	3	
6,241	5,258	983	184,662	141,752	42,910	2,602	22,408	22,218	137,434	109,879	27,555	14,170	2,248	10,869	1,053	31,419	4	
6,302	5,322	980	181,770	139,173	42,597	2,572	22,158	22,356	134,682	107,203	27,479	13,798	2,219	10,540	1,039	31,295	5	
9,785	7,445	2,340	456,236	341,165	115,071	5,811	61,515	42,539	346,371	272,742	73,629	27,623	5,667	19,386	2,570	113,924	6	
9,785	7,445	2,340	397,718	283,012	114,706	5,697	61,263	39,048	291,710	218,249	73,461	25,114	5,252	17,292	2,570	111,388	7	
...	...	...	58,518	58,153	365	114	252	3,491	54,661	54,493	168	2,509	415	2,094	...	2,536	8
236	180	56	12,895	10,771	2,124	262	1,208	2,395	9,030	7,531	1,499	1,009	297	629	83	2,113	9	
224	175	49	9,623	7,943	1,680	210	1,010	1,670	6,733	5,539	1,194	881	255	557	69	1,791	10	
12	5	7	3,214	2,773	441	48	191	714	2,261	1,958	303	126	42	70	14	310	11	
...	...	...	58	55	3	4	7	11	36	34	2	2	...	2	...	12	12
...	...	...	13	13	...	2	...	3	8	8	...	...	...	...	...	...	13
455	357	98	20,005	16,542	3,463	448	2,092	3,416	14,049	11,541	2,508	1,787	493	1,156	138	3,546	14	
13.85	14.91	10.00	9.08	8.41	12.30	5.74	10.59	6.54	9.58	9.29	10.96	7.72	4.50	9.12	7.53	8.83	15	
2,431	1,775	656	175,116	156,258	18,858	1,949	20,074	22,552	130,541	118,300	12,241	17,747	3,879	13,232	636	20,719	16	
1,080	839	241	45,047	36,882	8,165	977	4,897	7,501	31,672	25,953	5,719	4,218	1,215	2,663	340	8,990	17	
78	26	52	17,454	14,844	2,610	273	1,034	4,023	12,124	10,248	1,876	715	268	361	86	2,180	18	
827	546	281	85,953	80,053	5,900	561	6,777	6,798	71,817	67,805	4,012	5,172	773	4,213	186	6,247	19	
27	20	7	{ 1,394	{ 3,439	131	{ 7	42	64	1,281	1,268	13	93	89	81	14	84	20	
419	344	75	{ 2,176	{ 2,052	50	{ 81	148	221	1,726	1,707	19	148	{ 57	{ 57	10	578	21	
			23,092	21,040	2,052	50	7,176	3,945	11,921	11,319	602	7,401	1,534	5,857	10	2,640	22	
575	(D)	(D)	47,716	42,974	4,742	213	7,010	6,473	34,020	32,962	1,058	9,598	197	6,500	2,901	2,226	23	
1,303	1,153	150	76,465	68,895	7,570	247	16,043	10,434	49,741	47,870	1,871	18,533	1,778	13,300	3,455	4,784	24	
763	627	136	38,658	36,056	2,602	72	10,750	4,471	23,365	22,828	537	10,698	1,571	6,807	2,320	2,461	25	
540	526	14	35,146	30,187	4,959	120	5,210	5,620	24,196	22,871	1,325	7,829	203	6,491	1,135	2,309	26	
...	...	...	2,661	2,652	9	55	83	343	2,180	2,171	9	6	4	2	...	14	27
46	37	9	2,118	1,784	334	40	173	395	1,510	1,288	222	210	43	141	26	371	28	
207	216	176	221	225	199	189	172	237	225	233	186	238	168	253	380	207	29	
46	37	9	2,052	1,721	331	37	171	388	1,456	1,235	221	206	41	139	26	354	30	
...	...	...	66	63	3	3	2	7	54	53	1	4	2	2	...	17	31
3	2	1	167	133	34	...	11	27	129	102	27	23	7	14	2	3	32	
1,866	958	908	86,524	68,677	17,847	1,649	8,898	11,185	64,792	51,379	13,413	8,124	1,293	5,884	947	11,638	33	
5,973	3,026	2,947	267,536	209,599	57,937	5,310	28,789	36,074	197,363	153,783	43,580	25,748	4,163	18,511	3,074	37,576	34	
(D)	(D)	...	12,758	(D)	(D)	(D)	48	(D)	12,503	12,503	...	587	2	585	...	4	35	
...	...	...	(D)	(D)	(D)	...	(D)	(D)	(D)	(D)	...	...	...	...	(D)	(D)	36
(D)	...	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	13	26	(D)	15	(D)	(D)	37	
(D)	(D)	...	220	(D)	(D)	(D)	9	13	182	181	1	13	(D)	4	(D)	61	38	
(D)	(D)	(D)	756	(D)	(D)	(D)	1	61	106	588	462	126	112	(D)	72	(D)	12	39
1,850	1,565	285	52,451	38,018	14,433	888	26,415	2,856	22,292	18,724	3,568	2,051	235	1,426	390	2,456	40	
8.26	8.94	5.82	5.45	4.79	8.59	4.23	26.15	1.71	3.31	3.38	2.99	2.33	0.92	2.56	5.65	1.37	41	
35	21	14	6,563	4,830	1,733	28	1,166	849	4,520	3,638	882	200	38	129	33	225	42	
1,470	882	588	275,646	202,860	72,786	1,176	48,972	35,658	189,840	152,796	37,044	8,400	1,596	5,418	1,386	9,450	43	
8	(D)	(D)	6,988	6,509	479	34	307	421	6,226	5,957	269	694	22	543	129	126	44	
336	210	126	293,496	273,378	20,118	1,428	12,894	17,682	261,492	250,194	11,298	29,148	924	22,806	5,418	5,292	45	
...	...	...	4,421	4,370	51	...	1	131	4,289	5,957	269	694	{ ...	429	{ 129	{ ...	46
8	(D)	(D)	2,567	2,139	428	34	306	290	1,937	...	...	{ 22	114	...	{ 126	{ 47	47

⁴See table 1, footnote 4.⁵See table 1, footnote 6.⁶See table 1, footnote 7.⁷See table 1, footnote 8.⁸Represents shell or water storage capacity at end of 1954.

Table 4.—DETAILED STATISTICS FOR THE NATURAL GAS LIQUIDS INDUSTRIES IN THE UNITED STATES, BY TYPE OF OPERATION: 1954
(For explanations of line captions, see INTRODUCTION)

Item	United States, total	Producing operations			Nonproducing operations ¹
		Absorption	Compression	Combination ²	
Number of operating companies.....	181	140	42	33	9
Number of establishments.....	562	405	77	71	9
Number of plants.....	582	423	78	72	9
Net production of natural gas liquids ³.....1,000 barrels..	255,450	205,865	15,357	34,228	...
Net shipments of natural gas liquids ³.....do....	252,067	203,821	15,257	32,989	...
Value of shipments, total.....\$1,000..	640,422	465,527	24,859	⁴ 150,036	(⁴)
Net shipments of natural gas liquids ³.....do....	576,828	458,914	24,779	93,135	...
Natural gas liquids transferred for further processing and other products and services.....do....	63,594	6,613	80	⁴ 56,901	(⁴)
Number of persons engaged, total.....	⁵ 17,412	12,522	801	2,369	25
Production and related workers ⁶	13,560	10,771	724	2,045	20
All other employees.....	⁵ 3,780	1,691	69	320	5
Proprietors and firm members.....	72	60	8	4	...
Performing manual labor.....	13	13	...	...	...
Man-hours worked by production and related workers ⁶.....1,000..	27,862	22,152	1,528	4,140	42
Natural gas liquids net shipments per man-hour.....1,000 barrels..	9.04	8.61	18.53	7.97	...
Principal expenses designated below, total ⁷.....\$1,000..	⁵ 228,384	126,018	7,758	79,737	6,040
Wages of production and development workers ⁶.....do....	63,983	50,511	3,391	9,977	104
Salaries of all other employees.....do....	⁵ 21,074	9,984	342	⁸ 1,917	(⁸)
Supplies and natural gas liquids received for further processing ⁷.....do....	101,447	35,721	3,016	⁶ 62,710	(⁸)
Fuel ⁹.....do....	1,964	1,173	43	⁸ 748	(⁸)
Purchased electric energy.....do....	3,190	2,236	190	⁸ 764	(⁸)
Contract work.....do....	36,726	26,393	776	3,663	5,894
Purchased machinery installed.....do....	65,752	49,436	3,454	6,977	5,885
Capital expenditures, total.....do....	109,959	80,890	4,930	11,539	12,600
New construction and major alterations of fixed plants ¹⁰.....do....	55,794	37,768	2,104	4,479	11,443
New machinery and equipment.....do....	51,227	40,509	2,787	6,774	1,157
Used plant and equipment.....do....	2,938	2,613	39	286	...
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....1,000..	2,902	2,267	129	482	24
Per production worker.....	214	211	178	236	1,216
Prime movers.....1,000..	2,808	2,203	125	457	23
Electric motors driven by purchased energy.....do....	94	64	4	25	1
Horsepower rating of electric motors driven by energy generated at the establishment.....do....	208	173	3	32	...
Energy used.....million kwh equivalent..	113,449	90,861	4,295	18,293	...
Residue gas.....million cu. ft..	352,296	286,341	13,703	52,252	...
Purchased fuels and electric energy:					
Natural gas.....do....	15,087	7,956	202	6,929	...
Fuel oils.....1,000 barrels..	7	7	...	...	...
Other fuels.....\$1,000..	301	255	11	34	1
Electric energy purchased.....million kwh..	321	231	14	76	...
Electric energy generated and used.....do....	936	767	19	150	...
Water intake.....million gallons..	67,262	48,356	2,550	⁸ 16,356	(⁸)
Per production worker.....1,000 gallons..	4.96	4.49	3.52	8.00	xxx
Gas processed, total ¹¹.....million cu. ft..	7,459,918	6,071,005	332,068	1,056,845	...
Casing head gas processed.....do....	3,110,023	2,352,648	214,768	542,607	...
Dry gas processed.....do....	4,349,895	3,718,357	117,300	514,238	...
Residue gas.....do....	7,072,920	5,759,379	310,631	1,002,910	...
Extraction loss ¹².....do....	386,998	311,626	21,437	53,935	...

xxx Not applicable.

¹Represents 5 absorption plants, 3 compression plants, and 1 combination plant. During 1954, 8 of these plants were under construction while 1 was maintained in readiness condition and operated compressors for gas boosting. See footnote 4 below.

²Represents plants using a combination of absorption and compression methods of recovery and one charcoal absorption plant.

³See table 3, footnote 3.

⁴Receipts for compressor services performed by a nonproducing plant are included with figures for "Combination" method producing plants, amounting to less than 5 percent of the total value of shipments for such plants.

⁵Includes 1,695 salaried employees at central offices paid \$8,831,000 which were not classified by type of operation.

⁶See table 1, footnote 4.

⁷See table 1, footnote 6.

⁸Figures for nonproducing operations are included with those for "Combination" method producing plants, amounting to less than 2 percent of total shown.

⁹See table 1, footnote 7.

¹⁰See table 1, footnote 8.

¹¹Respondents were requested to adjust all volumes to a pressure base of 14.73 pounds absolute at 60° F.

¹²Represents shrinkage, including meter differences.

Table 5.—PRODUCTS OF THE NATURAL GAS LIQUIDS INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954 AND 1939

(For explanations of column captions, see INTRODUCTION)

Geographic division, State, and product	Unit of measure for quantity	Natural gas liquids industries					Natural gasoline industry, 1954			Cycle condensate industry, 1954		
		1954			1939 production							
		Produc- tion	Shipments		Quan- tity	Value (\$1,000)	Produc- tion	Shipments		Produc- tion	Shipments	
			Quan- tity	Value (\$1,000)				Quan- tity	Value (\$1,000)		Quan- tity	Value (\$1,000)
UNITED STATES												
All products and services, total ¹.....	.....	xxx	xxx	640,422	xxx	96,338	xxx	xxx	507,655	xxx	xxx	132,767
Primary products												
Gross natural gas liquids ¹	1,000 barrels..	291,169	287,786	634,384	(NA)	(NA)	243,089	240,026	501,982	xxx	47,760	132,402
Natural gas liquids trans- ferred to other natural gas liquids plants for further processing ².....	....do.....	35,719	35,719	57,556	(NA)	(NA)	35,719	35,719	57,556	xxx	...	...
Net natural gas liquids, total ¹	....do.....	255,450	252,067	576,828	60,825	96,185	207,370	204,307	444,426	48,080	47,760	132,402
Natural gasoline.....	....do.....	98,571	98,763	297,159	50,995	87,743	{	83,164	83,450	248,446	15,407	15,313
Raw cycle condensate.....	....do.....	8,267	8,203	25,262								
Liquified petroleum gases, total.....	....do.....	127,101	123,952	179,989	9,170	7,156	110,570	107,697	153,533	16,531	16,255	26,456
Chemical raw material..	....do.....	16,621	16,592	25,585	(NA)	(NA)	12,633	12,606	20,553	3,988	3,986	5,032
Ethane incl. above..	....do.....	3,060	xxx	xxx	(NA)	(NA)	1,942	xxx	xxx	1,118	xxx	xxx
For all other uses.....	....do.....	110,480	107,360	154,404	(NA)	(NA)	97,937	95,091	132,980	12,543	12,269	21,424
Finished gasoline.....	....do.....	17,455	17,258	61,640	3328	3624	10,017	9,636	32,533	7,438	7,622	29,107
Kerosine.....	....do.....	1,887	1,721	5,859	332	662	{	912	814	2,839	975	907
Distillate oils.....	....do.....	1,558	1,545	4,741								
Residual oils.....	....do.....	4611	4625	42,178	332	662	{	1,037	1,031	3,042	521	514
Secondary products and services												
Sulfur and sulfur bearing materials:												
Sulfur.....	1,000 long tons	33	31	788	(NA)	(NA)	33	31	788	...	...	...
Hydrogen sulfide and other sulfur bearing materials....	....do.....	52	53	520	(NA)	(NA)	(D)	(D)	(D)	(D)	(D)	(D)
Estimated sulfur contained	....do.....	51	51	xxx	(NA)	xxx	(D)	(D)	xxx	(D)	(D)	xxx
Receipts for services:												
Contract processing of natural gas ⁵.....	.....	xxx	xxx	24,426	xxx	(NA)	{	xxx	xxx	19,812 (D)	xxx	xxx
Boosting.....	.....	xxx	xxx	3,973	xxx							
Other oil-and gas-field services ⁶.....	.....	xxx	xxx	605	xxx	127	{	xxx	xxx	(D)	xxx	xxx
Electric energy generated and sold.....	Million kwh....	xxx	13	152	4								26	xxx	13	152	xxx	...	...
MIDDLE ATLANTIC (Pennsylvania) ⁷												
All products and services, total.....	.....	xxx	xxx	405	xxx	594	xxx	xxx	405	xxx	xxx	...
Primary products ⁸												
Natural gas liquids, total ⁹	1,000 barrels..	139	138	405	307	594	139	138	405	...	...	...
Natural gasoline.....	....do.....	139	138	405	{	296	139	138	405	{	...	...
Liquified petroleum gases....	....do.....											
Finished gasoline.....	....do.....	...	...	...	35	313	...	...	...	...	...	...
EAST NORTH CENTRAL ¹⁰												
All products and services, total.....	.....	xxx	xxx	13,180	xxx	656	xxx	xxx	13,180	xxx	xxx	...
Primary products												
Natural gas liquids, total ⁹	1,000 barrels..	7,405	7,317	13,180	315	656	7,405	7,317	13,180	...	...	...
Natural gasoline.....	....do.....	11747	11777	112,530	276	587	11747	11777	112,530	...	...	...
Liquified petroleum gases....	....do.....	6,658	6,540	10,650	34	54	6,658	6,540	10,650	...	...	...
Finished gasoline.....	....do.....	...	...	...	35	315	...	...	...	...	...	...
ILLINOIS												
All products and services, total.....	.....	xxx	xxx	12,914	xxx	288	xxx	xxx	12,914	xxx	xxx	...
Primary products												
Natural gas liquids, total ⁹	1,000 barrels..	7,303	7,215	12,914	132	288	7,303	7,215	12,914	...	...	...
Natural gasoline.....	....do.....	117,303	117,215	112,914	{	98	117,303	117,215	112,914	{	...	...
Liquified petroleum gases....	....do.....											
OHIO AND MICHIGAN ¹⁰												
All products and services, total.....	.....	xxx	xxx	266	xxx	368	xxx	xxx	266	xxx	xxx	...
Primary products												
Natural gas liquids, total ⁹	1,000 barrels..	7,303	7,215	12,914	132	288	7,303	7,215	12,914	...	...	...
Natural gasoline.....	....do.....	117,303	117,215	112,914	{	98	117,303	117,215	112,914	{	...	...
Liquified petroleum gases....	....do.....											

See footnotes at end of table.

Table 5.—PRODUCTS OF THE NATURAL GAS LIQUIDS INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954 AND 1939—Continued

Geographic division, State, and product	Unit of measure for quantity	Natural gas liquids industries					Natural gasoline industry, 1954			Cycle condensate industry, 1954						
		1954			1939 production		Produc- tion	Shipments		Produc- tion	Shipments					
		Produc- tion	Shipments		Quan- tity	Value (\$1,000)		Quan- tity	Value (\$1,000)							
			Quan- tity	Value (\$1,000)							Quan- tity	Value (\$1,000)				
OHIO AND MICHIGAN--Con.																
Primary products																
Natural gas liquids, total ⁹	1,000 barrels..	102	102	266	183	368	102	102	266	...	...	...	
Natural gasoline.....	...do.....	}	102	102	{	178	353	102	102	{	...	...		
Liquified petroleum gases....	...do.....												266
Finished gasoline.....	...do.....												...	35	315	...
WEST NORTH CENTRAL (North Dakota, Nebraska, and Kansas)																
All products and services, total.....	.....	xxx	xxx	8,757	xxx	2,140	xxx	xxx	8,757	xxx	xxx	...			
Primary products																
Natural gas liquids, total ⁹	1,000 barrels..	4,930	4,919	8,726	1,593	2,140	4,930	4,919	8,726	...	...	...	
Natural gasoline.....	...do.....	2,601	2,576	5,478	1,456	1,976	2,601	2,576	5,478	...	...	...	
Liquified petroleum gases ¹²..	...do.....	2,329	2,343	3,248	114	139	2,329	2,343	3,248	...	...	...	
Finished gasoline.....	...do.....	...	...	...	323	325	...	...	...	...	...	...
Secondary products and services																
Boosting and other oil-and gas- field services.....	.....	xxx	xxx	31	...	...	xxx	xxx	31	xxx	xxx	...	
SOUTH ATLANTIC (West Virginia)																
All products and services, total.....	.....	xxx	xxx	10,512	xxx	3,396	xxx	xxx	10,512	xxx	xxx	...			
Primary products																
Natural gas liquids, total ⁹	1,000 barrels..	6,484	6,528	10,512	1,883	3,394	6,484	6,528	10,512	...	...	...	
Natural gasoline.....	...do.....	13,974	13,108	13,732	1,110	1,914	13,974	13,108	13,732	...	...	...	
Liquified petroleum gases....	...do.....	5,510	5,510	7,780	768	1,469	5,510	5,510	7,780	...	...	...	
Finished gasoline.....	...do.....	(13)	(13)	(13)	35	311	(13)	(13)	(13)	...	...	...	
Secondary products and services																
Boosting and other oil-and gas- field services.....	.....	xxx	xxx	...	xxx	2	xxx	xxx	...	xxx	xxx	...			
EAST SOUTH CENTRAL																
All products and services, total.....	.....	xxx	xxx	9,785	xxx	706	xxx	xxx	149,785	xxx	xxx	(14)			
Primary products																
Natural gas liquids, total ⁹	1,000 barrels..	6,241	6,302	9,785	570	706	14,624	14,630	149,785	(14)	(14)	(14)				
Natural gasoline.....	...do.....	1,290	1,376	3,572	183	343	14,129	14,137	143,572	(14)	(14)	(14)				
Liquified petroleum gases....	...do.....	4,951	4,926	6,213	387	363	14,495	14,496	146,213	(14)	(14)	(14)				
KENTUCKY																
All products and services, total.....	.....	xxx	xxx	7,445	xxx	706	xxx	xxx	7,445	xxx	xxx	...			
Primary products																
Natural gas liquids, total ⁹	1,000 barrels..	5,258	5,322	7,445	570	706	5,258	5,322	7,445	...	...	...	
Natural gasoline.....	...do.....	671	760	1,764	183	343	671	760	1,764	...	...	...	
Liquified petroleum gases....	...do.....	4,587	4,562	5,681	387	363	4,587	4,562	5,681	...	...	...	
MISSISSIPPI																
All products and services, total.....	.....	xxx	xxx	2,340	...	...	xxx	xxx	142,340	xxx	xxx	(14)	
Primary products																
Natural gas liquids, total ⁹	1,000 barrels..	983	980	2,340	...	...	14,983	14,980	142,340	(14)	(14)	(14)		
Natural gasoline.....	...do.....	619	616	1,808	...	...	14,619	14,616	141,808	(14)	(14)	(14)		
Liquified petroleum gases ¹²..	...do.....	364	364	532	...	...	14,364	14,364	14,532	(14)	(14)	(14)	
WEST SOUTH CENTRAL																
All products and services, total ¹.....	.....	xxx	xxx	456,236	xxx	49,067	xxx	xxx	341,165	xxx	xxx	115,071			
Primary products																
Natural gas liquids transferred to other natural gas liquids plants for further processing..	1,000 barrels..	(D)	(D)	(D)	(NA)	(NA)	(D)	(D)	(D)	...	...	...	
Net natural gas liquids, total	...do.....	184,662	181,770	397,718	38,711	49,017	141,752	139,173	283,012	42,910	42,597	114,706				
Natural gasoline.....	...do.....	66,108	66,203	184,925	}	31,122	44,625	{	52,338	52,530	142,985	13,770				
Raw cycle condensate.....	...do.....	6,076	6,029	17,461					1,534	1,545	3,633	4,542				
Liquified petroleum gases, total.....	...do.....	90,997	88,418	121,042					6,968	3,174	75,907	73,610	98,012	15,090	14,808	
												23,030				

See footnotes at end of table.

Table 5.—PRODUCTS OF THE NATURAL GAS LIQUIDS INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954 AND 1939—Continued

Geographic division, State, and product	Unit of measure for quantity	Natural gas liquids industries					Natural gasoline industry, 1954			Cycle condensate industry, 1954			
		1954			1939 production								
		Produc- tion	Shipments		Quan- tity	Value (\$1,000)	Produc- tion	Shipments		Produc- tion	Shipments		
			Quan- tity	Value (\$1,000)				Quan- tity	Value (\$1,000)		Quan- tity	Value (\$1,000)	
WEST SOUTH CENTRAL—Con.													
Primary products—Con.													
Natural gas liquids, total—Con.													
Chemical raw material.....	1,000 barrels..	8,519	8,491	14,608	(NA)	(NA)	4,531	4,505	9,576	3,988	3,986	5,032	
Ethane included above..	.....do.....	1,315	xxx	xxx	(NA)	...	(D)	xxx	xxx	(D)	xxx	xxx
For all other uses.....	.....do.....	82,478	79,927	106,434	(NA)	(NA)	71,376	69,105	88,436	11,102	10,822	17,998
Finished gasoline.....	.....do.....	17,436	17,240	61,543	3289	3556	9,999	9,618	32,436	7,437	7,622	29,107
Kerosine.....	.....do.....	1,887	1,721	5,859	332	662	912	814	2,839	975	907	3,020
Distillate oils.....	.....do.....	1,547	1,534	4,710			1,026	1,020	3,011	521	514	1,699
Residual oils.....	.....do.....	611	625	2,178			36	36	96	575	589	2,082
Secondary products and services													
Sulfur and sulfur bearing materials:													
Sulfur.....	1,000 long tons	33	31	788	(NA)	(NA)	33	31	788	...	...	...
Hydrogen sulfide and other sulfur bearing materials....	.....do.....	40	38	139	(NA)	(NA)	(D)	(D)	(D)	(D)	(D)	(D)
Estimated sulfur contained	.....do.....	38	37	xxx	(NA)	xxx	(D)	(D)	xxx	(D)	(D)	xxx
Receipts for services:													
Contract processing of natural gas ².....	.....do.....	xxx	xxx	14,128	xxx	(NA)	xxx	xxx	9,514	xxx	xxx	4,614
Boosting.....do.....	xxx	xxx	(D)	xxx	38	xxx	xxx	1,750	{	xxx	xxx	156
Other oil-and gas-field services.....	.....do.....	xxx	xxx		xxx	xxx	1,750	xxx	99			
Electric energy generated and sold.....	Million kwh....	xxx	8	87	2	12	xxx	8	87	xxx	...	...
ARKANSAS													
All products and services, total.....	.....do.....	xxx	xxx	5,811	xxx	940	xxx	xxx	145,811	xxx	xxx	(14)
Primary products													
Natural gas liquids, total ⁹	1,000 barrels..	2,602	2,572	5,697	591	940	142,602	142,572	145,697	(14)	(14)	(14)	
Natural gasoline, raw cycle condensate, and distillate oils.....	.....do.....	1,209	1,200	3,215	591	940	141,209	141,200	143,215	(14)	(14)	(14)
Liquified petroleum gases....	.....do.....	1,393	1,372	2,482	...	...	141,393	141,372	142,482	(14)	(14)	(14)
Secondary products and services													
Hydrogen sulfide and other sulfur bearing materials and receipts for services.....	.....do.....	...	...	114	...	...	...	...	...	...	...	(D)
LOUISIANA													
All products and services, total ¹.....	.....do.....	xxx	xxx	61,515	xxx	3,482	xxx	xxx	1461,515	xxx	xxx	(14)
Primary products													
Natural gas liquids transferred to other natural gas liquids plants for further processing..	1,000 barrels..	(D)	(D)	(D)	(NA)	(NA)	(D)	(D)	(D)	...	...	...
Net natural gas liquids, total	.....do.....	22,408	22,159	61,263	2,353	3,482	1422,408	1422,159	1461,263	(14)	(14)	(14)
Natural gasoline.....	.....do.....	5,661	5,682	16,013	2,224	3,313	145,661	145,682	1416,013	(14)	(14)	(14)
Raw cycle condensate.....	.....do.....	2,064	2,040	6,257			142,064	142,040	146,257	(14)	(14)	(14)
Liquified petroleum gases....	.....do.....	7,058	6,954	11,547			147,058	146,954	1411,547	(14)	(14)	(14)
Finished gasoline.....do.....	156,902	156,881	25,412			377	3113	14156,902	14156,881	141525,412	(14)	(14)	(14)
Kerosine.....	.....do.....	723	602	2,034	52	56	14723	14602	142,034	(14)	(14)	(14)
Distillate and residual oils.do.....	(15)	(15)	(15)			(15)	(15)	(15)	(15)	(15)	(15)	(15)
Secondary products and services													
Receipts for services:													
Contract processing of natural gas.....	.....do.....	xxx	xxx	3,549	xxx	(NA)	xxx	xxx	3,549	xxx	xxx	...
Boosting and other oil- and gas-field contract services	.....do.....	xxx	xxx	(D)	xxx	...	xxx	xxx	(D)	xxx	xxx	(14)
Electric energy generated and sold.....	.....do.....	xxx	(D)	(D)	...	...	xxx	(D)	(D)	xxx	...	...
OKLAHOMA													
All products and services, total ¹.....	.....do.....	xxx	xxx	42,539	xxx	16,394	xxx	xxx	1442,539	xxx	xxx	(14)
Primary products													
Natural gas liquids transferred to other natural gas liquids plants for further processing..	1,000 barrels..	(D)	(D)	(D)	(NA)	(NA)	(D)	(D)	(D)	(14)	(14)	(14)	
Net natural gas liquids, total	.....do.....	22,218	22,356	39,048	11,539	16,391	1422,218	1422,356	1439,048	(14)	(14)	(14)
Natural gasoline and raw cycle condensate ².....	.....do.....	11,323	11,490	25,197	10,193	15,058	1411,323	1411,490	1425,197	(14)	(14)	(14)
Liquified petroleum gases....	.....do.....	10,807	10,752	13,389	1,159	815	1410,807	1410,752	1413,389	(14)	(14)	(14)
Finished gasoline.....do.....	88	114	462	{	52	102	1488	14114	14462	(14)	(14)	(14)
Distillate and residual oil..do.....													135	416

See footnotes at end of table.

Table 5.—PRODUCTS OF THE NATURAL GAS LIQUIDS INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954 AND 1939—Continued

Geographic division, State, and product	Unit of measure for quantity	Natural gas liquids industries					Natural gasoline industry, 1954			Cycle condensate industry, 1954		
		1954			1939 production							
		Produc- tion	Shipments		Quan- tity	Value (\$1,000)	Produc- tion	Shipments		Produc- tion	Shipments	
			Quan- tity	Value (\$1,000)				Quan- tity	Value (\$1,000)		Quan- tity	Value (\$1,000)
OKLAHOMA—Con.												
Secondary products and services												
Boosting and other oil-and gas- field contract services.....	.....	xxx	xxx	(D)	xxx	1	xxx	xxx	(D)	xxx	xxx	(14)
Electric energy generated and sold.....	.....	xxx	(D)	(D)	...	2	xxx	(D)	(D)	xxx	...	...
TEXAS												
All products and services, total ¹.....	.....	xxx	xxx	346,371	xxx	28,251	xxx	xxx	272,472	xxx	xxx	73,629
Primary products												
Natural gas liquids transferred to other natural gas liquids plants for further processing.	1,000 barrels...	(D)	(D)	(D)	(NA)	(NA)	(D)	(D)	(D)	...	...	...
Net natural gas liquids, total..	.....do.....	137,434	134,682	291,710	24,228	28,204	109,879	107,203	218,249	27,555	27,479	73,461
Natural gasoline.....	.....do.....	47,990	47,905	140,724	18,114	25,314	{ 39,351	39,357	111,966	8,639	8,548	28,758
Raw cycle condensate.....	.....do.....	3,940	3,915	10,988								
Liquified petroleum gases, total.....	.....do.....	71,739	69,340	93,624	5,809	2,359	60,771	58,537	76,980	10,968	10,803	16,644
Chemical raw material.....	.....do.....	8,162	8,135	13,816	(NA)	(NA)	4,174	4,149	8,784	3,988	3,986	5,032
Ethane included above..	.....do.....	1,315	xxx	xxx	(NA)	(NA)	(D)	xxx	xxx	(D)	xxx	xxx
For all other uses.....	.....do.....	63,577	61,205	79,808	(NA)	(NA)	56,597	54,388	68,196	6,980	6,817	11,612
Finished gasoline.....	.....do.....	11,619	11,391	39,552	³ 160	³ 341	7,329	6,965	22,978	4,290	4,426	16,574
Kerosine.....	.....do.....	1,164	1,120	3,825	145	190	{ 648	568	2,004	516	552	1,821
Distillate oils.....	.....do.....	839	857	2,643								
Residual oils.....	.....do.....	16143	16154	16354	145	190	{ 566	557	1,712	273	300	931
	.....do.....											
	.....do.....						31	31	81	16112	16123	16273
Secondary products and services												
Sulfur and sulfur bearing materials:												
Sulfur.....	1,000 long tons.	33	31	788	(NA)	(NA)	33	31	788	...	...	...
Hydrogen sulfide and other sulfur bearing materials....	.....do.....	(D)	(D)	(D)	(NA)	(NA)	(D)	(D)	(D)	...	...	...
Receipts for services:												
Contract processing of natural gas ².....	.....	xxx	xxx	10,579	xxx	(NA)	xxx	xxx	5,965	xxx	xxx	4,614
Boosting.....	.....	xxx	xxx	767	xxx	37	{ xxx	xxx	(D)	xxx	xxx	(D)
Other oil-and gas-field services.....	.....	xxx	xxx	(D)	xxx							
Electric energy generated and sold.....	1,000 kwh.....	xxx	(D)	(D)	...	10	xxx	(D)	(D)	xxx	(D)	(D)
MOUNTAIN												
All products and services, total ¹.....	.....	xxx	xxx	27,623	xxx	3,647	xxx	xxx	27,623	xxx	xxx	...
Primary products												
Natural gas liquids transferred to other natural gas liquids plants for further processing..	1,000 barrels...	(D)	(D)	(D)	(NA)	(NA)	(D)	(D)	(D)	...	...	...
Net natural gas liquids, total..	.....do.....	14,170	13,798	25,114	2,274	3,633	14,170	13,798	25,114	...	...	...
Natural gasoline and raw cycle condensate.....	.....do.....	¹¹ 6,968	¹¹ 6,935	¹¹ 6,231	2,157	3,506	¹¹ 6,968	¹¹ 6,935	¹¹ 6,231	...	...	...
Liquified petroleum gases ¹²..	.....do.....	7,202	6,863	8,883	116	123	7,202	6,863	8,883	...	...	...
Finished gasoline.....	.....do.....	...	...	...	1	4	...	...	...	...	...	...
Secondary products and services												
Hydrogen sulfide and other sulfur bearing materials.....	1,000 long tons.	(D)	(D)	(D)	(NA)	(NA)	(D)	(D)	(D)	...	...	...
Receipts for services:												
Contract processing of natural gas ².....	.....	xxx	xxx	1,060	xxx	(NA)	xxx	xxx	1,060	xxx	xxx	...
Boosting.....	.....	xxx	xxx	(D)	xxx	...	xxx	xxx	(D)	xxx	xxx	...
Electric energy generated and sold.....	1,000 kwh.....	xxx	(D)	(D)	...	14	xxx	(D)	(D)	xxx	...	...
WYOMING												
All products and services, total.....	.....	xxx	xxx	5,667	xxx	1,568	xxx	xxx	5,667	xxx	xxx	...
Primary products												
Natural gas liquids, total ⁹	1,000 barrels..	2,248	2,219	5,252	731	1,565	2,248	2,219	5,252	...	...	...
Natural gasoline and raw cycle condensate.....	.....do.....	1,121	1,115	3,116	731	1,565	1,121	1,115	3,116	...	...	...
Liquified petroleum gases ¹²..	.....do.....	1,127	1,104	2,136	...	...	1,127	1,104	2,136	...	...	...

See footnotes at end of table.

Table 5.--PRODUCTS OF THE NATURAL GAS LIQUIDS INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954 AND 1939--Continued

Geographic division, State, and product	Unit of measure for quantity	Natural gas liquids industries					Natural gasoline industry, 1954			Cycle condensate industry, 1954		
		1954			1939 production		Produc- tion	Shipments		Produc- tion	Shipments	
		Produc- tion	Shipments		Quan- tity	Value (\$1,000)		Quan- tity	Value (\$1,000)			
			Quan- tity	Value (\$1,000)							Quan- tity	Value (\$1,000)
WYOMING--Continued												
<u>Secondary products and services</u>												
Sulfur and sulfur bearing materials: Hydrogen sulfide and other sulfur bearing material.....	1,000 long tons	(D)	(D)	(D)	(NA)	(NA)	(D)	(D)	(D)	...	...	...
Receipts for services: Contract processing of natural gas ².....	.....	xxx	xxx	(D)	xxx	(NA)	xxx	xxx	(D)	xxx	xxx	...
Electric energy generated and sold.....	1,000 kwh.....	xxx	(D)	(D)	...	3	xxx	(D)	(D)	xxx	...	...
NEW MEXICO												
All products and services, total ¹.....	.....	xxx	xxx	19,386	xxx	1,765	xxx	xxx	19,386	xxx	xxx	...
<u>Primary products</u>												
Natural gas liquids transferred to other natural gas liquids plants for further processing..	1,000 barrels..	(D)	(D)	(D)	(NA)	(NA)	(D)	(D)	(D)	...	...	...
Net natural gas liquids, total..	....do.....	10,869	10,540	17,292	1,385	1,754	10,869	10,540	17,292	...	...	...
Natural gasoline.....	....do.....	115,337	115,309	111,701	1,295	1,686	115,337	115,309	111,701	...	...	...
Liquified petroleum gases ¹²..	....do.....	5,532	5,231	5,591	89	64	5,532	5,231	5,591	...	...	...
Finished gasoline.....	....do.....	...	...	...	31	34	...	...	...	...	...	...
<u>Secondary products and services</u>												
Sulfur and sulfur bearing materials: Hydrogen sulfide and other sulfur bearing materials....	1,000 long tons.	(D)	(D)	(D)	(NA)	(NA)	(D)	(D)	(D)	...	...	...
Receipts for services: Contract processing of natural gas ².....	.....	xxx	xxx	(D)	xxx	(NA)	xxx	xxx	(D)	xxx	xxx	(NA)
Boosting.....	.....	xxx	xxx	(D)	xxx	...	xxx	xxx	(D)	xxx	xxx	...
Electric energy generated and sold.....	1,000 kwh.....	xxx	(D)	(D)	...	11	xxx	(D)	(D)	xxx	...	...
MONTANA AND COLORADO ^{7 10}												
All products and services, total ¹.....	.....	xxx	xxx	2,570	xxx	314	xxx	xxx	2,570	xxx	xxx	...
<u>Primary products</u> ⁸												
Natural gas liquids, total ⁹	1,000 barrels..	1,053	1,039	2,570	158	314	1,053	1,039	2,570	...	...	...
Natural gasoline.....	....do.....	510	511	1,414	131	255	510	511	1,414	...	...	...
Liquified petroleum gases ¹²..	....do.....	543	528	1,156	27	59	543	528	1,156	...	...	...
PACIFIC (California)												
All products and services, total.....	.....	xxx	xxx	113,924	xxx	36,132	xxx	xxx	¹⁴ 113,924	xxx	xxx	(¹⁴)
<u>Primary products</u>												
Natural gas liquids, total ⁹	1,000 barrels..	31,419	31,295	111,388	15,172	36,045	¹⁴ 31,419	¹⁴ 31,295	¹⁴ 111,388	(¹⁴)	(¹⁴)	(¹⁴)
Natural gasoline and raw cycle condensate.....	....do.....	¹⁶ 21,985	21,966	89,302	14,395	34,246	¹⁴ 21,985	¹⁴ 21,966	¹⁴ 89,302	(¹⁴)	(¹⁴)	(¹⁴)
Liquified petroleum gases....	....do.....	9,434	9,329	22,086	777	1,799	¹⁴ 9,434	¹⁴ 9,329	¹⁴ 22,086	(¹⁴)	(¹⁴)	(¹⁴)
<u>Secondary products and services</u>												
Receipts for services: Contract processing of natural gas ².....	.....	xxx	xxx	8,996	xxx	(NA)	xxx	xxx	8,996	xxx	xxx	...
Boosting and other oil-and gas-field services.....	.....	xxx	xxx	(D)	xxx	87	xxx	xxx	(D)	xxx	xxx	...
Electric energy generated and sold.....	.....	xxx	(D)	(D)	...	...	xxx	(D)	(D)	xxx	...	...

xxx Not applicable. NA Not available. D Withheld to avoid approximately disclosing figures for individual companies. ¹See table 1, footnote 2. ²See table 1, footnote 3. ³Represents "motor fuel less natural gasoline entering into its production". ⁴Includes slop and heavy bottoms amounting to less than one-half of one percent of the total shown. ⁵Contract processing of natural gas is not included in the total value of shipments and services since it would duplicate, in part, the value of the products produced from such processing. ⁶Includes receipts for processing gas for water removal and for hauling oil and gas-field supplies and equipment. ⁷In 1954, figures for New York are included with those for Montana and Colorado. ⁸No secondary products were reported and the only services reported were for contract processing of natural gas or condensate. See footnote 5. ⁹No natural gas liquids were reported transferred to other natural gas liquids plants for further processing. Hence, these figures represent both "gross" and "net" statistics. ¹⁰In 1939, figures for Michigan are included with those for Montana and Colorado. ¹¹Includes distillate oils amounting to less than one-half of one percent of total. ¹²For 1954, represents liquified petroleum gases for "all other uses" only. ¹³Finished gasoline is included with natural gasoline, amounting to less than 4 percent of the total. ¹⁴Figures for the cycle condensate industry are included with those for the natural gasoline industry. ¹⁵Distillate and residual oils are included with finished gasoline. ¹⁶Includes slop and heavy bottoms amounting to less than 3 percent of the total.

Table 6.—GENERAL STATISTICS FOR NATURAL GAS LIQUIDS ESTABLISHMENTS CLASSIFIED BY EMPLOYMENT SIZE, BY GEOGRAPHIC DIVISIONS AND STATES: 1954

(For explanation of column captions, see INTRODUCTION)

Geographic division, State, and number of employees in establishment	Number of establish- ments	Value of shipments (\$1,000)	Number of employees		Man-hours worked by production and development workers ¹ (1,000)	Wages and salaries		New capital expenditures (\$1,000)
			Production and development workers ¹	All other employees		Production and development workers ¹ (\$1,000)	All other employees (\$1,000)	
United States.....	562	640,422	13,560	² 3,780	27,862	63,983	² 21,074	107,021
0.....	6	2,279	133	10	301	566	44	2,862
1-4.....	³ 66							
5-9.....	72							
10-19.....	131	12,289	452	42	940	1,800	167	7,199
20-49.....	201	53,250	1,652	204	3,424	7,543	1,121	31,478
50-99.....	73	226,006	5,670	709	11,716	26,693	4,200	33,331
100-249.....	12	199,388	4,035	774	8,189	19,382	4,688	15,538
250-499.....	1	147,210	1,618	346	3,292	7,999	2,023	6,752
Middle Atlantic (Pennsylvania).....	10	405	37	...	61	106	...	39
1-4.....	³ 6	405	37	...	61	106	...	39
5-9.....	4							
East North Central.....	13	13,180	269	35	551	1,261	172	243
1-4.....	³ 4	19	4	...	7	14	...	...
5-9.....	2	465	32	5	71	152	8	(D)
10-19.....	2							
20-49.....	3	12,696	233	30	473	1,095	164	(D)
50-99.....	2							
Illinois.....	8	12,914	244	33	502	1,143	167	243
1-4.....	2	12,914	244	33	502	1,143	167	243
10-19.....	1							
20-49.....	3							
50-99.....	2							
Ohio and Michigan.....	5	266	25	2	49	118	5	...
1-4.....	³ 2	266	25	2	49	118	5	...
5-9.....	2							
10-19.....	1							
West North Central (North Dakota, Nebraska, and Kansas).....	16	8,757	329	59	650	1,514	349	7,884
5-9.....	1	1,812	94	14	191	423	104	7,684
10-19.....	7							
20-49.....	7	6,945	235	45	459	1,091	245	200
50-99.....	1							
South Atlantic (West Virginia).....	41	10,512	406	24	807	1,767	126	451
0.....	2	1,403	138	7	262	520	35	304
1-4.....	³ 22							
5-9.....	8							
10-19.....	3							
20-49.....	4							
50-99.....	2	9,109	268	17	545	1,247	91	147
East South Central.....	9	9,785	224	12	455	1,080	78	1,303
5-9.....	3	790	29	1	61	129	9	145
10-19.....	1							
20-49.....	4	8,995	195	11	394	951	69	1,158
50-99.....	1							
Kentucky.....	6	7,445	175	5	357	839	26	1,153
5-9.....	2	7,445	175	5	357	839	26	1,153
20-49.....	3							
50-99.....	1							
Mississippi.....	3	2,340	49	7	98	241	52	150
5-9.....	1	2,340	49	7	98	241	52	150
10-19.....	1							
20-49.....	1							
West South Central.....	367	456,236	9,623	² 3,214	20,005	45,047	² 17,454	73,804
0.....	3	...	...	...	...	...	...	2,638
1-4.....	³ 26	1,171	58	10	156	265	43	7,934
5-9.....	41	8,010	255	25	567	990	96	3,264
10-19.....	97	33,861	1,220	146	2,546	5,465	767	22,671
20-49.....	138	139,945	3,885	498	8,119	18,052	2,897	20,153
50-99.....	50	130,626	2,733	539	5,606	13,007	3,105	10,485
100-249.....	11	142,623	1,472	329	3,011	7,268	1,892	6,659
250-499.....	1							
Arkansas.....	9	5,811	210	48	448	977	273	192
10-19.....	6	5,811	210	48	448	977	273	192
20-49.....	1							
50-99.....	2							
Louisiana.....	52	61,515	1,010	² 191	2,092	4,897	² 1,034	15,960
1-4.....	³ 5	394	5	...	10	23	...	135
5-9.....	8	1,451	48	3	102	220	18	...
10-19.....	19	6,515	209	32	446	965	180	9,010
20-49.....	16	25,527	453	75	960	2,237	441	5,945
50-99.....	3	27,628	295	68	574	1,452	309	870
100-249.....	1							

See footnotes at end of table.

Table 6.—GENERAL STATISTICS FOR NATURAL GAS LIQUIDS ESTABLISHMENTS CLASSIFIED BY EMPLOYMENT SIZE, BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Con.

(For explanation of column captions, see INTRODUCTION)

Geographic division, State, and number of employees in establishment	Number of establishments	Value of shipments (\$1,000)	Number of employees		Man-hours worked by production and development workers ¹ (1,000)	Wages and salaries		New capital expenditures (\$1,000)
			Production and development workers ¹	All other employees		Production and development workers ¹ (\$1,000)	All other employees (\$1,000)	
West South Central—Con.								
Oklahoma.....	75	42,539	1,670	² 714	3,416	7,501	² 4,023	10,091
1-4.....	5	144	13	2	33	56	7	} 667
5-9.....	13	3,999	79	12	165	272	44	
10-19.....	23	4,757	277	26	568	1,193	140	4,844
20-49.....	25	13,795	728	66	1,472	3,178	364	1,193
50-99.....	7	19,844	573	115	1,178	2,802	671	3,387
100-249.....	2							
Texas.....	231	346,371	6,733	² 2,261	14,049	31,672	² 12,124	47,561
0.....	3	633	40	8	113	186	36	10,189
1-4.....	116							
5-9.....	20	2,560	128	10	300	498	34	2,845
10-19.....	49	21,121	655	71	1,362	2,959	363	8,795
20-49.....	96	99,640	2,674	348	5,629	12,494	2,040	12,994
50-99.....	38	98,997	2,092	412	4,325	9,872	2,373	9,180
100-249.....	8	123,420	1,144	251	2,320	5,663	1,507	3,558
250-499.....	1							
Mountain.....	34	27,623	881	126	1,787	4,218	715	18,527
0.....	1	1,174	33	6	58	138	29	4,843
1-4.....	2							
5-9.....	5	1,217	61	7	127	297	28	36
10-19.....	5							
20-49.....	14	14,853	386	43	803	1,849	249	11,310
50-99.....	7	10,379	401	70	799	1,934	409	2,338
Wyoming.....	10	5,667	255	42	493	1,215	268	1,774
0.....	1	684	42	7	74	180	35	1,464
5-9.....	2							
10-19.....	3	4,983	213	35	419	1,035	233	310
20-49.....	1							
50-99.....	3	2,570	69	14	138	340	86	3,455
Montana and Colorado.....	6							
1-4.....	2	2,570	69	14	138	340	86	3,455
5-9.....	3							
50-99.....	1	19,386	557	70	1,156	2,663	361	13,298
New Mexico.....	18							
10-19.....	2	14,554	372	45	781	1,799	243	11,313
20-49.....	13							
50-99.....	3	4,832	185	25	375	864	118	1,985
Pacific (California).....	72	113,924	1,791	² 310	3,546	8,990	² 2,180	4,770
1-4.....	36	716	13	...	29	77	...	} 1,112
5-9.....	8	1,474	54	5	108	265	25	
10-19.....	16	15,301	209	30	421	1,068	188	727
20-49.....	31	49,658	824	105	1,636	4,171	715	1,375
50-99.....	10	46,775	691	142	1,352	3,409	1,075	1,556
100-249.....	1							

¹See Table 1, footnote 4.²Figures for 1,695 central office employees paid \$8,831,000 in salaries are included only in total figures for the United States and in the total figures for the geographic divisions and States in which these offices were located. These offices were not classified by size of establishment.³Includes data for plants for which no separate employment figures were reported. See Table 1, footnote 4.

Table 7.—EMPLOYMENT IN SELECTED MONTHS IN THE NATURAL GAS LIQUIDS INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES AND BY TYPE OF OPERATION: 1954

Geographic division, State, and type of operation	Average employment for the year ¹	Number of employees in selected months			
		March	May	August	November
United States, total.....	17,340	17,175	17,228	17,589	17,272
GEOGRAPHIC DIVISIONS AND STATES					
Middle Atlantic (Pennsylvania).....	37	37	38	38	36
East North Central, total.....	304	316	311	298	292
Illinois.....	277	289	285	272	265
Ohio and Michigan.....	27	27	26	26	27
West North Central (North Dakota, Nebraska, and Kansas).....	388	373	371	395	414
South Atlantic (West Virginia).....	430	432	435	423	415
East South Central, total.....	236	229	230	253	228
Kentucky.....	180	173	174	197	174
Mississippi.....	56	56	56	56	54
West South Central, total.....	12,837	12,730	12,778	13,022	12,750
Arkansas.....	258	275	252	255	252
Louisiana.....	1,201	1,190	1,169	1,241	1,197
Oklahoma.....	2,384	2,413	2,380	2,385	2,346
Texas.....	8,994	8,852	8,977	9,141	8,955
Mountain, total.....	1,007	961	968	1,036	1,055
Wyoming.....	297	293	287	303	302
New Mexico.....	627	598	605	648	655
Montana and Colorado.....	83	70	76	85	98
Pacific (California).....	2,101	2,097	2,097	2,124	2,082
TYPE OF OPERATION ²					
Producing operations, total.....	15,620	15,466	15,514	15,862	15,533
Absorption.....	12,462	12,319	12,412	12,653	12,387
Compression.....	793	766	766	809	815
Combination.....	2,365	2,381	2,336	2,400	2,331
Nonproducing operations.....	25	8	8	29	51

¹Represents the sum of the average employment figures for the year as shown in the separate establishment reports. These are the averages shown in other tables of this report. Because of roundings the sum of such average figures may differ slightly from the average of the March, May, August, and November totals.

²Excludes employees at central offices. These offices were not classified by type of operation.

Table 8.—GENERAL STATISTICS FOR ESTABLISHMENTS CLASSIFIED BY OUTPUT PER MAN-HOUR: 1954

(Such statistics were not compiled for these industries)

Table 9.—GENERAL STATISTICS FOR ESTABLISHMENTS CLASSIFIED BY RATIO OF WAGES AND SALARIES TO VALUE ADDED IN MINING: 1954

(Such statistics were not compiled for these industries)

Table 10.--HORSEPOWER OF POWER EQUIPMENT USED IN THE NATURAL GAS LIQUIDS INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES AND BY TYPE OF OPERATION: 1954

(For explanation of column captions, see INTRODUCTION)

Geographic division, State, and type of operation	Aggregate horsepower per production worker	Aggregate horsepower (prime movers and electric motors driven by purchased energy) (1,000)	Prime movers (1,000 horsepower)				Electric motors (1,000 horsepower)		
			Total	Highway type	All other equipment		Total	Driven by purchased energy	Driven by energy generated at the establishment
					Driving generators	Not driving generators			
United States, total.....	214	2,902	2,808	106	293	2,409	302	94	208
GEOGRAPHIC DIVISIONS AND STATE									
Middle Atlantic (Pennsylvania).....	70	3	2	...	...	2	1	1	...
East North Central, total.....	106	29	27	3	3	21	4	2	2
Illinois.....	100	25	23	2	3	18	4	2	2
Ohio and Michigan.....	169	4	4	1	...	3	...	...	...
West North Central, (North Dakota, Nebraska, and Kansas).....	230	76	74	2	14	58	11	2	9
South Atlantic (West Virginia).....	121	49	47	...	3	44	3	2	1
East South Central, total.....	207	46	46	1	4	41	3	...	3
Kentucky.....	216	37	37	...	3	34	2	...	2
Mississippi.....	176	9	9	1	1	7	1	...	1
West South Central, total.....	221	2,118	2,052	83	230	1,739	233	66	167
Arkansas.....	189	40	37	4	1	32	3	3	...
Louisiana.....	172	173	171	7	18	146	13	2	11
Oklahoma.....	237	395	388	18	35	335	34	7	27
Texas.....	225	1,510	1,456	54	176	1,226	183	54	129
Mountain, total.....	238	210	206	9	34	163	27	4	23
Wyoming.....	168	43	41	3	9	29	9	2	7
New Mexico.....	253	141	139	5	23	111	16	2	14
Montana and Colorado.....	380	26	26	1	2	23	2	...	2
Pacific (California).....	207	371	354	8	5	341	20	17	3
TYPE OF OPERATION									
Producing operations, total.....	213	2,878	2,785	104	293	2,388	301	93	208
Absorption.....	211	2,267	2,203	90	236	1,877	237	64	173
Compression.....	178	129	125	4	5	116	7	4	3
Combination ¹	236	482	457	10	52	395	57	25	32
Nonproducing operations.....	1,215	24	23	...	...	23	1	1	...

¹See table 4, footnote 2.Table 11.--NUMBER OF LOADING MACHINES: 1954 AND 1939
(Not applicable to these industries)

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 12.—GAS PROCESSED; DISPOSITION OF RESIDUE GAS; EXTRACTION LOSS; AND SUPPLIES, MATERIALS, FUELS,

(For explanation of line

Item	Unit of measure for quantity	United States						Middle Atlantic (Pennsylvania)	
		Total		Natural gasoline industry		Cycle condensate industry		Quantity	Cost (\$1,000)
		Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)		
1 Gas processed, total.....	Million cu. ft. ¹	7,459,918	xxx	6,117,960	xxx	1,341,958	xxx	20,201	xxx
2 Casinghead gas processed.....	....do.....	3,110,023	xxx	2,726,264	xxx	383,759	xxx	204	xxx
3 Dry gas processed.....	....do.....	4,349,895	xxx	3,391,696	xxx	958,199	xxx	19,997	xxx
4 Residue gas, total.....	....do.....	7,072,920	xxx	5,793,916	xxx	1,279,004	xxx	19,979	xxx
5 Used by company for power or heat:									
6 At natural gas liquids plants.....	....do.....	352,296	xxx	288,483	xxx	63,813	xxx	40	xxx
7 At other company operations.....	....do.....	215,847	xxx	210,059	xxx	5,788	xxx	2	xxx
8 Returned to supplying producer for all purposes ².....	....do.....	2,457,456	xxx	1,730,447	xxx	727,009	xxx	19,937	xxx
9 Returned to formations ³.....	....do.....	144,493	xxx	10,486	xxx	134,007	xxx	...	xxx
10 Blown to air or burned in flares.....	....do.....	27,355	xxx	23,283	xxx	4,072	xxx	...	xxx
11 Delivered to other companies.....	....do.....	3,875,473	xxx	3,531,158	xxx	344,315	xxx	...	xxx
12 Extraction loss ⁴.....	....do.....	386,998	xxx	324,045	xxx	62,953	xxx	222	xxx
13 Natural gas liquids received for further processing.....	1,000 barrels..	35,719	57,556	35,719	57,556	...	...	...	...
14 Supplies used.....	....do.....	xxx	43,891	xxx	37,534	xxx	6,357	xxx	81
15 Purchased fuels used.....	Million kwh equivalent.	4,728	1,964	4,715	1,929	13	35	44	(D)
16 Fuel oils.....	1,000 barrels..	7	49	7	49	...	...	...	...
17 Natural gas.....	Million cu. ft.	15,087	1,614	15,070	1,612	17	2	144	(D)
18 Other fuels.....	....do.....	xxx	301	xxx	268	xxx	33	xxx	...
19 Electric energy used, total.....	Million kwh...	1,257	xxx	1,061	xxx	196	xxx	1	xxx
20 Purchased.....	....do.....	321	3,190	302	2,996	19	194	1	(D)
Generated and used.....	....do.....	936	xxx	759	xxx	177	xxx	...	xxx

Item	Unit of measure for quantity	East South Central					
		Total		Kentucky		Mississippi	
		Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
1 Gas processed, total.....	Million cu. ft. ¹	490,644	xxx	370,111	xxx	120,533	xxx
2 Casinghead gas processed.....	....do.....	490,644	xxx	370,111	xxx	120,533	xxx
3 Dry gas processed.....	....do.....						
4 Residue gas, total.....	....do.....	481,210	xxx	362,662	xxx	118,548	xxx
5 Used by company for power or heat:							
6 At natural gas liquids plants.....	....do.....	5,973	xxx	3,026	xxx	2,947	xxx
7 At other company operations.....	....do.....	(D)	xxx	(D)	xxx	(D)	xxx
8 Returned to supplying producer for all purposes ².....	....do.....	76,592	xxx	(D)	xxx	(D)	xxx
9 Returned to formations ³.....	....do.....	...	xxx	...	xxx	...	xxx
10 Blown to air or burned in flares.....	....do.....	44	xxx	...	xxx	44	xxx
11 Delivered to other companies.....	....do.....	(D)	xxx	(D)	xxx	(D)	xxx
12 Extraction loss ⁴.....	....do.....	9,434	xxx	7,449	xxx	1,985	xxx
13 Natural gas liquids received for further processing.....	1,000 barrels..	...	...	...	...	...	...
14 Supplies used.....	....do.....	xxx	827	xxx	546	xxx	281
15 Purchased fuels used.....	Million kwh equivalent.	(D)	(D)	(D)	(D)	(D)	(D)
16 Fuel oils.....	1,000 barrels..	...	...	...	...	...	...
17 Natural gas.....	Million cu. ft.	(D)	(D)	(D)	(D)	...	...
18 Other fuels.....	....do.....	xxx	(D)	xxx	...	xxx	(D)
19 Electric energy used, total.....	Million kwh...	15	xxx	(D)	xxx	(D)	xxx
20 Purchased.....	....do.....	(D)	(D)	(D)	(D)	(D)	(D)
Generated and used.....	....do.....	(D)	xxx	(D)	xxx	(D)	xxx

See footnotes at end of table.

AND ELECTRIC ENERGY USED IN THE NATURAL GAS LIQUIDS INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954
captions, see INTRODUCTION)

East North Central						West North Central (North Dakota, Nebraska, and Kansas)		South Atlantic (West Virginia)		
Total		Illinois		Ohio and Michigan						
Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	
159,225	xxx	(D)	xxx	(D)	xxx	400,791	xxx	205,151	xxx	1
155,058	xxx	(D)	xxx	(D)	xxx	8,030	xxx	2,697	xxx	2
4,167	xxx	...	xxx	4,167	xxx	392,761	xxx	202,454	xxx	3
148,176	xxx	(D)	xxx	(D)	xxx	393,588	xxx	197,060	xxx	4
7,874	xxx	7,699	xxx	175	xxx	4,928	xxx	2,621	xxx	5
(D)	xxx	...	xxx	(D)	xxx	(D)	xxx	(D)	xxx	6
(D)	xxx	(D)	xxx	(D)	xxx	(D)	xxx	186,288	xxx	7
...	xxx	...	xxx	...	xxx	...	xxx	...	xxx	8
...	xxx	...	xxx	...	xxx	1,362	xxx	...	xxx	9
(D)	xxx	(D)	xxx	(D)	xxx	(D)	xxx	(D)	xxx	10
11,049	xxx	10,985	xxx	64	xxx	7,203	xxx	8,091	xxx	11
...	...	...	...	...	...	...	...	...	...	12
xxx	932	xxx	864	(D)	68	xxx	784	xxx	1,451	13
14	(D)	6	(D)	8	9	228	106	(D)	(D)	14
...	...	...	...	...	...	...	...	...	...	15
36	11	(D)	(D)	(D)	9	733	97	(D)	(D)	16
xxx	12	xxx	(D)	xxx	9	xxx	9	xxx	...	17
16	xxx	16	xxx	...	...	32	xxx	18	xxx	18
9	(D)	9	(D)	...	...	8	85	(D)	(D)	19
7	xxx	7	xxx	...	xxx	24	xxx	(D)	xxx	20

West South Central												
Both industries, total		Natural gasoline industry		Cycle condensate industry		Arkansas		Louisiana		Oklahoma		
Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	
5,076,107	xxx	3,853,397	xxx	1,222,710	xxx	64,561	xxx	627,006	xxx	540,822	xxx	1
5,076,107	xxx	3,853,397	xxx	{ 301,107 921,603 }	xxx xxx	{ 64,561	xxx	{ 264,336 362,670 }	xxx xxx	{ 371,733 169,089 }	xxx xxx	2 3
4,800,832	xxx	3,637,609	xxx	1,163,223	xxx	57,159	xxx	598,534	xxx	504,357	xxx	4
267,536	xxx	209,599	xxx	57,937	xxx	5,310	xxx	28,789	xxx	36,074	xxx	5
172,022	xxx	166,344	xxx	5,678	xxx	127	xxx	13,052	xxx	4,149	xxx	6
1,783,109	xxx	1,016,601	xxx	{ 632,501 134,007 4,072 }	xxx xxx xxx	22,545	xxx	335,521	xxx	222,062	xxx	7
21,450	xxx	17,378	xxx	...	...	...	xxx	...	xxx	...	xxx	8
2,556,715	xxx	2,227,687	xxx	329,028	xxx	29,064	xxx	5,266	xxx	3,877	xxx	9
275,275	xxx	215,788	xxx	59,487	xxx	7,402	xxx	215,906	xxx	238,195	xxx	10
(D)	...	(D)	...	59,487	xxx	7,402	xxx	28,472	xxx	36,465	xxx	11
xxx	85,953	{ (D) xxx }	80,053	{ ... xxx }	5,900	xxx	561	(D) xxx	6,777	{ (D) xxx }	6,798	12 13
3,984	1,394	3,972	(D)	12	(D)	6	7	27	42	69	64	14
(D)	(D)	(D)	(D)	...	...	...	...	(D)	(D)	...	...	15
12,758	1,175	(D)	(D)	(D)	(D)	(D)	7	48	10	(D)	64	16
xxx	(D)	xxx	(D)	xxx	(D)	xxx	{	xxx	(D)	xxx	...	17
976	xxx	643	xxx	173	xxx	10	xxx	74	xxx	122	xxx	18
220	2,176	(D)	(D)	(D)	(D)	9	81	13	148	16	221	19
756	xxx	(D)	xxx	(D)	xxx	1	xxx	61	xxx	106	xxx	20

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 12.—GAS PROCESSED; DISPOSITION OF RESIDUE GAS; EXTRACTION LOSS; AND SUPPLIES, MATERIALS, FUELS,

(For explanation of line

Item	Unit of measure for quantity	West South Central—Con.					
		Texas					
		Total		Natural gasoline industry		Cycle condensate industry	
		Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
1 Gas processed, total.....	Million cu. ft. ¹	3,843,718	xxx	2,943,182	xxx	900,536	xxx
2 Casinghead gas processed.....	....do.....	1,458,934	xxx	1,270,272	xxx	188,662	xxx
3 Dry gas processed.....	....do.....	2,384,784	xxx	1,672,910	xxx	711,874	xxx
4 Residue gas, total.....	....do.....	3,640,782	xxx	2,782,707	xxx	858,075	xxx
Used by company for power or heat:							
At natural gas liquids plants.....	....do.....	197,363	xxx	153,783	xxx	43,580	xxx
At other company operations.....	....do.....	154,694	xxx	149,221	xxx	5,473	xxx
7 Returned to supplying producer for all purposes ².....	....do.....	1,202,981	xxx	695,781	xxx	373,193	xxx
8 Returned to formations ³.....	....do.....	12,194	xxx	11,268	xxx	134,007	xxx
9 Blown to air or burned in flares.....	....do.....	2,073,550	xxx	1,772,654	xxx	926	xxx
10 Delivered to other companies.....	....do.....					300,896	xxx
11 Extraction loss ⁴.....	....do.....	202,936	xxx	160,475	xxx	42,461	xxx
12 Natural gas liquids received for further processing.....	1,000 barrels..	(D)		(D)		...	...
13 Supplies used.....	....do.....	xxx	71,817	xxx	67,805	xxx	4,012
14 Purchased fuels used.....	Million kwh equivalent.	3,882	1,281	3,879	1,268	3	13
15 Fuel oils.....	1,000 barrels..	(D)	(D)	(D)	(D)	...	...
16 Natural gas.....	Million cu. ft.	12,503	1,144	12,503	1,144	...	...
17 Other fuels.....	....do.....	xxx	(D)	xxx	(D)	xxx	13
18 Electric energy used, total.....	Million kwh....	770	xxx	643	xxx	127	xxx
19 Purchased.....	....do.....	182	1,726	181	1,707	1	19
20 Generated and used.....	....do.....	588	xxx	462	xxx	126	xxx

(D) Withheld to avoid approximately disclosing figures for individual companies.

xxx Not applicable.

¹See table 4, footnote 11.²Includes gas returned to formations by natural gas liquids plants for the account of the producer. Such gas is included in the figures shown for the quantity of gas returned to formations in the report, "Crude petroleum and natural gas."³Represents only gas returned to formations by natural gas liquids plants not for the account of the producer.⁴See table 4, footnote 12.

AND ELECTRIC ENERGY USED IN THE NATURAL GAS LIQUIDS INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954

captions, see INTRODUCTION)

Mountain								Pacific (California)		
Total		Wyoming		New Mexico		Montana and Colorado				
Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	
536,097	xxx	60,372	xxx	439,556	xxx	36,169	xxx	571,702	xxx	
536,097	{	xxx	27,201	xxx	183,663	xxx	36,169	{	xxx	
		xxx	33,171	xxx	255,893	xxx			xxx	
504,435	xxx	56,310	xxx	412,938	xxx	35,187	xxx	527,640	xxx	
25,748	xxx	4,163	xxx	18,511	xxx	3,074	xxx	37,576	xxx	
10,081	xxx	(D)	xxx	(D)	xxx	...	xxx	31,214	xxx	
62,744	{	xxx	23,918	(D)	xxx	(D)	xxx	303,807	{	
		xxx	...	(D)	xxx	(D)	xxx			
4,244		xxx	131	xxx	4,113	xxx	...			xxx
401,618		xxx	(D)	xxx	369,366	xxx	(D)			xxx
31,662	xxx	4,062	xxx	26,618	xxx	982	xxx	44,062	xxx	
(D)	}	5,172	...	(D)	}	4,213	...	...	...
xxx			xxx	773			xxx	xxx	186	xxx	6,247
188	93	(D)	(D)	184	81	(D)	(D)	15	84	
...	...	...	...	...	...	...	...	(D)	(D)
587	67	2	1	585	66	...	...	4	2
xxx	26	xxx	(D)	xxx	15	xxx	(D)	xxx	(D)	
125	xxx	(D)	xxx	76	xxx	(D)	...	73	xxx	
13	148	(D)	(D)	4	57	(D)	(D)	61	578	
112	xxx	(D)	xxx	72	xxx	(D)	...	12	xxx	

Table 13.—WATER USE IN THE NATURAL GAS LIQUIDS INDUSTRIES, BY

(For explanation of column

	Geographic division, State, and type of operation	Number of production and related workers	Water intake				
			Total		By use (Million gallons)		
			Million gallons	Million gallons per production worker	Process water ¹	Cooling and air con- ditioning	Boiler feed, sanitary services, and other uses
1	United States, total.....	13,560	67,262	4.96	718	59,468	7,076
	GEOGRAPHIC DIVISIONS AND STATES						
2	Middle Atlantic (Pennsylvania).....	37	491	13.27	...	276	215
3	East North Central.....	269	378	1.4	...	276	102
4	Illinois.....	244	354	1.45	...	255	99
5	Ohio and Michigan.....	25	24	0.96	...	21	3
6	West North Central (North Dakota, Nebraska, and Kansas).....	329	507	1.54	1	438	68
7	South Atlantic (West Virginia).....	406	7,078	17.43	20	6,892	166
8	East South Central.....	224	1,850	8.26	9	1,726	115
9	Kentucky.....	175	1,565	8.94	8	1,491	66
10	Mississippi.....	49	285	5.82	1	235	49
11	West South Central.....	9,623	52,451	5.45	596	46,593	5,262
12	Arkansas.....	210	888	4.23	...	679	209
13	Louisiana.....	1,010	26,415	26.15	50	25,785	580
14	Oklahoma.....	1,670	2,856	1.71	77	2,131	648
15	Texas.....	6,733	22,292	3.31	469	17,998	3,825
16	Mountain.....	881	2,051	2.33	79	1,462	510
17	Wyoming.....	255	235	0.92	2	187	46
18	New Mexico.....	557	1,426	2.56	74	1,007	345
19	Montana and Colorado.....	69	390	5.65	3	268	119
20	Pacific (California).....	1,791	2,456	1.37	13	1,805	638
	TYPE OF OPERATION						
21	Producing operations, total.....	13,540	67,262	4.96	718	59,468	7,076
22	Absorption.....	10,771	48,356	4.49	669	41,840	5,847
23	Compression.....	724	2,550	3.52	36	2,148	366
24	Combination ²	2,045	³ 16,356	³ 8.00	13	³ 15,480	³ 863
25	Nonproducing operations.....	20	(³)	(³)	...	(³)	(³)

¹Represents all water that comes directly in contact with products.²See table 4, footnote 2.³Water used by nonproducing operations in compressors for gas boosting service is included with figures for combination method plants, amounting to less than one-tenth of one percent of the totals for such plants.

GEOGRAPHIC DIVISIONS AND STATES AND BY TYPE OF OPERATION: 1954

captions, see INTRODUCTION)

Water intake—Con.		Water discharged (Million gallons)	Gross water use, including recirculation (Million gallons)	Water treated (Million gallons)		Fresh water intake, by source (Million gallons)			
By kind (Million gallons)				Intake water treated prior to use	Waste water treated prior to discharge	Public water systems	Company surface water systems	Company ground water systems	
Fresh water	Brackish water								
64,267	2,995	41,714	1,046,468	22,387	880	2,616	25,341	36,310	1
491	...	469	1,394	5	5	...	417	74	2
378	...	185	21,827	232	20	94	175	109	3
354	...	180	18,511	229	20	75	175	104	4
24	...	5	3,316	3	...	19	...	5	5
507	...	194	17,935	316	...	...	15	492	6
7,078	...	7,026	36,228	163	23	...	7,068	10	7
1,850	...	1,698	23,998	202	8	...	1,555	295	8
1,565	...	1,480	23,644	167	8	...	1,555	10	9
285	...	218	354	35	...	...	...	285	10
49,523	2,928	31,238	786,210	17,882	734	1,554	15,727	32,242	11
888	...	272	21,166	270	...	...	11	877	12
23,514	2,901	24,893	73,545	2,724	339	27	14,738	8,749	13
2,850	6	500	147,962	1,755	22	227	307	2,316	14
22,271	21	5,573	543,537	13,133	373	1,300	671	20,300	15
2,051	...	631	44,875	1,853	46	104	380	1,567	16
235	...	123	1,266	69	...	...	121	114	17
1,426	...	468	36,600	1,412	46	104	87	1,235	18
390	...	40	7,009	372	...	...	172	218	19
2,389	67	273	114,001	1,734	44	864	4	1,521	20
64,267	2,995	41,714	1,046,468	22,387	880	2,616	25,341	36,310	21
45,428	2,928	30,779	842,587	17,319	817	2,257	18,900	24,271	22
2,483	67	2,115	68,146	403	18	26	1,957	500	23
³ 16,356	...	³ 8,820	³ 135,735	4,665	45	³ 333	4,484	³ 11,539	24
(³)	...	(³)	(³)	...	...	(³)	...	(³)	25

Oil and Gas Field Contract Services

This report shows 1954 Census of Mineral Industries statistics for establishments classified in Industry Group 133, Oil and Gas Field Contract Services. The separate industries included in Industry Group 133 are as follows:

- Industry 1331, Drilling Oil and Gas Wells: Establishments primarily engaged in drilling wells for oil or gas for others, including contractors that specialize in "spudding in" or "drilling in."
- Industry 1332, Building, Repairing, and Dismantling Rigs and Derricks: Establishments primarily engaged in such activities for others.
- Industry 1339, Oil and Gas Field Contract Services, Not Elsewhere Classified: Establishments primarily engaged in performing miscellaneous oil and gas field contract services, n.e.c., such as oil and gas field exploration; excavating slush pits and cellars; grading and building foundations at well locations; well surveying; running, cutting, and pulling casing, tubes, and rods; cementing wells; shooting wells; perforating well casing; acidizing and chemically treating wells; cleaning out, bailing out, and swabbing wells; and drilling water intake wells.

Establishments primarily engaged in hauling oil and gas field supplies and equipment, and in oil and gas field machine shop work, are not included in the Mining Division for 1954, according to the Standard Industrial Classification, and were not covered in the 1954 minerals census. In the 1939 census, contractors performing such services were covered, but for comparative statistics in this report, data for these services in 1939 have been excluded. Receipts for hauling and machine shop services accounted for about 8 percent of the total receipts for oil and gas field services covered for 1939.

Separate subindustry statistics are shown in this report for establishments primarily performing 14 types of services classified in Industry 1339. (See tables 3C, 3D, and 10.) For Industry 1331, separate statistics are shown for establishments classified on the basis of the principal secondary service performed. (See table 4.)

Establishments classified in the Oil and Gas Field Contract Services Industries, in general, filed one report for all contract services performed in the United States and Alaska. These reports were classified on the basis of the principal kind of work performed and the principal State in which the service was performed. Tables 3A, 3B, and 3D show the extent to which contractors classified in one State or Geographic Division performed services in other areas and the extent to which services in a particular area were performed by contractors classified in other areas. The figures indicate a fairly high degree of concentration of activities, although some contractors performed services in almost every oil producing State. This

concentration was greater for drilling contractors than for contractors primarily performing certain other types of work.

Industries 1331 and 1339 include establishments producing crude petroleum and natural gas whose receipts for contract work were greater than the value of shipments of oil and gas. Some operating companies prepared separate reports for their oil and gas production and their contract service activities, or for both activities combined for each State. Separate reports for each State, with or without contract work, were required if the company operated wells in more than one State. In some cases a parent company had subsidiaries engaged in only production or only contract activities; and separate reports were prepared for these. Table 1 of this report shows statistics for wells drilled for own account and the number of wells operated by contractors who prepared establishment reports including such activities. Tables 3A, 3C, and 5A show statistics for the crude petroleum and natural gas shipped by such establishments. Although about one-fourth of all contractors indicated that they also operated wells, the consolidated reports for contractors who also operated oil and gas properties accounted for less than one percent of all oil and gas production in 1954.

The total receipts for the oil and gas field contract services industries in 1954 amounted to \$1,631 million. Of this total, the drilling oil and gas wells industry accounted for \$973 million, of which \$893 million was for receipts for services primary to the industry; \$13 million was for services classified in other industries in Industry Group 133; \$59 million was for shipments of crude petroleum and natural gas; \$3 million was for hauling and other services not classified in these industries; and \$5 million was for products purchased and resold without further processing. The building, repairing, and dismantling rigs and derricks industry accounted for \$12 million, of which \$11 million was for services primary to this industry. The oil and gas field contract services, n.e.c., industry accounted for \$647 million, of which \$582 million was for services primary to the industry; \$7 million was for other services classified in Industry Group 133; \$2 million was for shipments of crude petroleum and natural gas; \$7 million was for hauling and other services not classified in these industries; and \$49 million was for products purchased and resold without further processing.

In addition to the contract services covered in this report, establishments classified in Industry 1312, Crude Petroleum, and Industry 1313, Natural Gas, reported receipts of \$33.5 million for oil and gas field contract services for others. Industry 1314, Natural Gasoline, and Industry 1315, Cycle Condensate, reported receipts of \$0.6 million for such services. Other establishments classified in Division B, Mining reported receipts of less than \$0.1 million for oil and gas field contract services. The following table shows for Geographic Divisions and the State of Texas, the total receipts for oil and gas field contract services by the Crude Petroleum and Natural Gas Extraction Industries and the amount paid contractors and subcontractors for services by establishments classified in the Crude Petroleum and Natural Gas and the Oil and Gas Field Contract Services Industries.

PAYMENTS AND RECEIPTS FOR OIL AND GAS FIELD CONTRACT SERVICES: 1954

Geographic division and State	Payments for contract services reported by industry using the service (\$1,000,000)			Receipts for contract services reported by the contractor (\$1,000,000)			
	Total	Contract work for the crude petroleum and natural gas industries	Subcontract work for the oil and gas field contract services industries	Total	By the oil and gas field contract services industries	By the crude petroleum and natural gas industries	By the natural gas liquids industries
United States, total.....	1,521.3	1,458.9	62.4	1,540.6	1,506.4	33.6	0.6
Middle Atlantic.....	22.8	22.6	0.2	22.4	21.7	0.7	...
East North Central.....	55.4	53.2	2.2	54.6	51.7	2.9	...
West North Central.....	91.2	87.0	4.2	74.4	69.8	4.6	...
South Atlantic.....	10.6	10.4	0.2	9.8	9.7	0.1	...
East South Central.....	30.7	29.8	0.9	25.1	24.5	0.6	...
West South Central.....	998.0	952.2	45.8	1,124.3	1,105.0	18.7	0.6
Texas.....	583.8	553.2	30.6	763.4	751.2	11.7	0.5
Mountain.....	181.4	175.9	5.5	122.1	119.7	2.4	...
Pacific.....	131.2	127.8	3.4	107.9	104.3	3.6	...

In considering this table it should be noted that the regional figures shown for the oil and gas field contract services industries are based on data for an entire establishment, classified according to the geographic location of the principal services performed. For example, many establishments classified in Texas also performed work in the Mountain States and, hence, receipts shown for Texas exceed payments whereas receipts shown for the Mountain States are less than payments shown. Other reasons for differences between payments and receipts are the exclusion from "receipts for oil and gas field contract services" of receipts for hauling and machine shop work and the probable exclusion from payments to contractors of some data shown instead as cost of purchased machinery, if the contractor furnished and installed the machinery.

Contractors reported drilling and completing 45,264 wells during 1954, as compared with 38,260 wells reported drilled on contract by oil and gas field operators. It is probable that operators frequently reported, as wells drilled by own company, wells on which contractors actually drilled most of the footage, but which the operating company drilled into the producing sands. Operating companies reported paying \$967 million to contractors for wells drilled on contract and completed during 1954. Contract drillers reported receipts during 1954 for drilling oil, gas, dry, and service wells amounting to \$872 million, and in addition, contractors reported receipts of \$40 million for running, cutting, and pulling casing tubes and rods; \$63 million for cementing wells and \$8 million for excavating slush pits and cellars which would usually be charged to cost of drilling and completing wells by the operating company. Other major contract receipts which would be partly so charged by operating companies are \$114 million for geophysical and other exploration work, \$69 million for well surveying and well logging, \$39 mil-

lion for perforating well casing, and \$53 million for acidizing and other chemical treatment of wells.

The kind of wells drilled on contract in 1954, as reported by drilling contractors, was 27,447 oil wells, 3,103 gas wells, 13,270 dry holes and 1,444 service wells. Operating companies reported as drilled on contract, 21,567 oil wells; 2,923 gas wells, 11,556 dry holes, and 2,214 service wells. Some contractors found it difficult to report the kind of wells drilled, since the wells were frequently drilled into producing sands by the operators themselves and the contractor's records did not always indicate whether or not the hole resulted in a producing well; if a producer, whether the principal product was oil or gas, or if not a producer, whether the hole would be used as a service well. However, most contractors who did not have complete records were able to estimate a distribution by kind of well. In a few cases where the contractor indicated that he could not prepare an estimated distribution, the kind of well was estimated on the basis of the reported distribution indicated by other contractors operating in the same area.

The contract service industries constituted a considerably more significant segment of oil and gas field activities in 1954 than in previous Census years. Employment in the contract service industries amounted to 42 percent of total employment at oil and gas field operations in 1954 as compared with 23 percent for 1939, and about 29 percent for 1902, the only other year for which such data are available. Operators reported that 73 percent of all wells were drilled on contract in 1954 and 62 percent in 1939. This trend toward contract operations in the oil and gas fields has considerably complicated the collection of Census reports, particularly those for oil and gas field operators. This is discussed further in the report Crude Petroleum and Natural Gas.

Table 1.—COMPARATIVE STATISTICS FOR THE OIL AND GAS FIELD CONTRACT SERVICES INDUSTRIES IN THE UNITED STATES: 1954 AND 1939

(Contractors were requested to prepare one report for all oil and gas field contract services performed in the United States. These reports were classified on the basis of the principal kind of work performed. For explanation of line captions and for statement on the minimum size of establishments included for each year, see INTRODUCTION)

Item	All oil and gas field contract services industries		Drilling oil and gas wells industry		Building, repairing, and dismantling rigs and derricks industry		Oil and gas field contract services, n.e.c., industry	
	1954	1939 ¹	1954	1939	1954	1939	1954	1939
Number of operating companies.....	5,463	1,619	2,846	985	120	115	2,502	519
Number of establishments.....	5,515	(NA)	2,869	(NA)	120	(NA)	2,526	(NA)
Amount received or due for services, total ².....\$1,000..	1,631,020	187,539	972,745	128,107	11,657	9,155	646,618	50,277
Drilling oil, gas, dry, and service wells ³.....do....	897,895	(NA)	892,957	(NA)	...	(NA)	4,938	(NA)
Building, repairing, and dismantling rigs and derricks.....do....	12,803	(NA)	148	(NA)	10,736	(NA)	1,919	(NA)
Other oil and gas field contract services.....do....	595,803	(NA)	13,408	(NA)	335	(NA)	582,060	(NA)
All other receipts.....do....	124,519	(NA)	66,232	(NA)	586	(NA)	57,701	(NA)
Value added in mining services.....do....	1,118,544	(NA)	623,967	(NA)	9,552	(NA)	485,025	(NA)
Number of persons engaged, total.....	132,325	41,188	71,375	25,086	1,763	3,847	59,187	12,255
Production and development workers.....	112,131	35,159	62,145	22,548	1,539	3,478	48,447	9,133
All other employees.....	13,758	4,603	5,831	1,676	93	258	7,834	2,669
Proprietors and firm members.....	6,436	1,426	3,399	862	131	111	2,906	453
Performing manual labor.....	3,100	507	1,684	292	68	44	1,348	171
Man-hours worked by production and development workers, total.....1,000..	247,275	57,720	133,216	38,621	1,720	3,265	112,339	15,834
Drilling wells and rig building.....do....	131,552	40,802	125,708	37,594	1,446	2,959	4,398	249
Exploration work (except drilling).....do....	23,789	(4)	342	(4)	...	(4)	23,447	(4)
Operating and maintaining wells.....do....	1,709	400	1,500	102	...	...	209	298
Other work.....do....	90,225	416,518	5,666	4925	274	4306	84,285	415,287
Principal expenses designated below, total.....\$1,000..	1,095,620	(NA)	686,173	(NA)	7,416	(NA)	402,031	(NA)
Wages of production and development workers.....do....	452,657	51,523	264,797	36,020	4,769	3,725	183,091	11,778
Salaries of all other employees.....do....	88,989	13,696	39,515	5,917	452	568	49,022	7,211
Supplies.....do....	5394,776	(NA)	5291,995	(NA)	1,524	(NA)	101,257	(NA)
Products purchased for resale.....do....	37,000	(NA)	6,794	(NA)	165	(NA)	30,041	(NA)
Fuel purchased.....do....	58,669	(NA)	36,704	(NA)	308	(NA)	21,657	(NA)
Electric energy purchased.....do....	1,203	(NA)	320	(NA)	3	(NA)	880	(NA)
Subcontract work.....do....	62,326	(NA)	46,048	(NA)	195	(NA)	16,083	(NA)
Purchased machinery installed.....do....	176,405	(NA)	120,385	(NA)	347	(NA)	55,673	(NA)
Capital expenditures, total.....do....	217,903	(NA)	153,468	(NA)	437	(NA)	63,998	(NA)
Development and exploration of mineral property.....do....	23,744	(NA)	23,416	(NA)	...	(NA)	328	(NA)
New construction and major alterations of fixed structures.....do....	4,799	(NA)	1,939	(NA)	56	(NA)	2,804	(NA)
New machinery and equipment.....do....	157,573	(NA)	99,722	(NA)	308	(NA)	57,543	(NA)
Used plant and equipment.....do....	31,787	(NA)	28,391	(NA)	73	(NA)	3,323	(NA)
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....1,000..	8,076	932	4,265	678	39	15	3,772	239
Per production worker.....	72	27	69	30	25	4	78	26
Prime movers.....1,000..	8,034	913	4,247	665	39	14	3,748	234
Electric motors driven by purchased energy.....do....	42	19	18	13	(6)	1	24	5
Horsepower rating of electric motors driven by energy generated at the establishment.....do....	96	21	89	21	...	...	7	...
Energy used.....million kwh equivalent..	29,992	(NA)	23,302	(NA)	84	(NA)	6,606	(NA)
Natural gas produced and used at same establishment.....million cu. ft..	410	(NA)	362	(NA)	...	(NA)	48	(NA)
Fuels purchased								
Coal.....1,000 short tons..	5	(NA)	4	(NA)	1	(NA)	(6)	(NA)
Fuel oils.....1,000 barrels..	2,382	(NA)	2,108	(NA)	9	(NA)	265	(NA)
Natural gas.....million cu. ft..	50,890	(NA)	47,339	(NA)	8	(NA)	3,543	(NA)
Other fuels.....\$1,000..	40,094	(NA)	19,943	(NA)	264	(NA)	19,887	(NA)
Electric energy purchased.....million kwh..	95	(NA)	18	(NA)	(6)	(NA)	77	(NA)
Electric energy generated and used.....do....	118	(NA)	113	(NA)	(6)	(NA)	5	(NA)
Number of wells drilled on contract for others, total.....	43,538	12,322	42,965	(NA)	...	(NA)	573	(NA)
Oil wells.....	26,456	10,024	26,109	(NA)	...	(NA)	347	(NA)
Gas wells.....	3,040	744	3,022	(NA)	...	(NA)	18	(NA)
Dry holes.....	12,650	1,554	12,489	(NA)	...	(NA)	161	(NA)
Service wells.....	1,392	(NA)	1,345	(NA)	...	(NA)	47	(NA)
Footage drilled on contract for others, total.....1,000 ft..	165,959	38,898	164,850	(NA)	...	(NA)	1,109	(NA)
Oil wells.....do....	100,359	31,840	99,601	(NA)	...	(NA)	758	(NA)
Gas wells.....do....	12,216	2,135	12,182	(NA)	...	(NA)	34	(NA)
Dry holes.....do....	51,387	4,923	51,101	(NA)	...	(NA)	286	(NA)
Service wells.....do....	1,997	(NA)	1,966	(NA)	...	(NA)	31	(NA)

See footnotes at end of table.

Table 1.—COMPARATIVE STATISTICS FOR THE OIL AND GAS FIELD CONTRACT SERVICES INDUSTRIES IN THE UNITED STATES: 1954 AND 1939—Continued

Item	All oil and gas field contract services industries		Drilling oil and gas wells industry		Building, repairing, and dismantling rigs and derricks industry		Oil and gas field contract services, n.e.c., industry	
	1954	1939 ¹	1954	1939	1954	1939	1954	1939
Costs borne by contractors in drilling and equipping wells on contract, total.....\$1,000..	698,184	96,343	694,857	(NA)	...	(NA)	3,327	(NA)
Oil wells.....do....	427,750	79,406	425,403	(NA)	...	(NA)	2,347	(NA)
Gas wells.....do....	54,629	4,467	54,486	(NA)	...	(NA)	143	(NA)
Dry holes.....do....	209,886	12,470	209,143	(NA)	...	(NA)	743	(NA)
Service wells.....do....	5,919	(NA)	5,825	(NA)	...	(NA)	94	(NA)
Wells drilled and completed except those drilled on contract for others:								
Number drilled.....	3,094	(NA)	3,011	(NA)	...	(NA)	83	(NA)
Footage drilled.....1,000 ft..	10,814	(NA)	10,631	(NA)	...	(NA)	183	(NA)
Cost of drilling and equipping.....\$1,000..	76,088	(NA)	74,539	(NA)	...	(NA)	1,549	(NA)
Number of wells producing December 1954, total.....	7,704	(NA)	7,372	(NA)	...	(NA)	332	(NA)
Oil wells.....	7,186	(NA)	6,879	(NA)	...	(NA)	307	(NA)
Gas wells.....	518	(NA)	493	(NA)	...	(NA)	25	(NA)

NA Not available.

D Withheld to avoid approximately disclosing figures for individual companies.

¹The 1939 Census report contains the results of the first census of the oil and gas field contract services industries in the United States.²Includes receipts for services not classified in these industries, oil and gas shipped, and products purchased and resold without further processing. For further details, see Table 5.³Includes receipts for drilling in, spudding in, tailing in, and reworking wells, amounting to \$46,984,000 for the Drilling oil and gas wells industry and to \$988,000 for the Oil and gas field contract services, n.e.c., industry.⁴Man-hours for exploration work are included with those for other work.⁵Includes cost of gas purchased for gas lift and repressuring, amounting, for the United States total, to 297,000 MCF purchased at a cost of \$18,000.⁶Less than one-half of the unit of measure specified.

Table 2.—COMPARATIVE STATISTICS FOR THE OIL AND GAS FIELD CONTRACT SERVICES INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954 AND 1939

(For explanation of column captions, see INTRODUCTION)

Industry, subindustry, geographic division, State, and year	Number of operating companies	Amount received or due for services	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		Aggregate horsepower rating of power equipment (1,000)
			Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
		(\$1,000)						
DRILLING OIL AND GAS WELLS INDUSTRY								
United States, total								
1954 ¹	2,846	972,745	62,145	5,831	133,216	264,797	39,515	4,265
1939.....	985	128,107	22,548	1,676	38,621	36,020	5,917	678
Middle Atlantic, total:								
1954.....	165	10,362	1,045	47	2,355	3,650	169	73
1939.....	149	3,175	1,082	17	1,937	1,348	43	26
New York:								
1954.....	33	975	131	5	282	425	14	10
1939.....	25	508	149	1	279	201	...	5
Pennsylvania:								
1954.....	132	9,387	914	42	2,073	3,225	155	63
1939.....	124	2,667	933	16	1,658	1,147	43	21
East North Central, total:								
1954.....	346	50,605	3,738	224	7,156	13,507	1,223	187
1939.....	176	23,311	3,796	313	6,466	6,325	1,001	88
Ohio:								
1954.....	111	5,878	742	30	1,383	2,313	89	32
1939.....	30	529	191	12	248	229	12	3
Indiana:								
1954.....	54	3,177	328	8	555	946	28	15
1939.....	18	572	76	8	116	93	8	1
Illinois:								
1954.....	135	33,653	2,133	128	4,033	7,744	651	102
1939.....	89	20,072	3,056	241	5,320	5,248	860	78
Michigan:								
1954.....	46	7,897	535	58	1,185	2,504	455	38
1939.....	39	2,138	473	52	782	755	121	6
West North Central:								
1954 ²	303	60,154	3,743	348	7,527	15,072	1,855	218
1939 ²	82	9,810	1,791	134	2,677	2,773	556	59
Kansas:								
1954.....	277	51,939	3,349	301	6,665	13,091	1,511	188
1939.....	82	9,810	1,791	134	2,677	2,773	556	59
South Atlantic:								
1954 ³	110	8,824	1,095	52	2,374	3,529	188	58
1939 ³	32	1,218	388	11	644	447	34	10
West Virginia:								
1954.....	96	7,192	937	29	2,033	2,952	75	49
1939.....	32	1,218	388	11	644	447	34	10
East South Central:								
1954 ⁴	167	20,604	1,898	104	3,481	6,046	540	122
1939 ⁴	15	367	117	8	135	103	9	2
Kentucky:								
1954.....	140	9,735	1,040	51	1,865	2,776	208	61
1939.....	15	367	117	8	135	103	9	2
West South Central, total:								
1954.....	1,461	652,414	40,155	4,025	89,615	174,695	27,938	2,863
1939.....	470	75,443	13,131	1,047	21,954	20,636	3,606	391
Arkansas:								
1954.....	18	3,280	249	13	452	857	68	15
1939.....	13	5,617	960	59	1,582	1,403	236	15
Louisiana:								
1954.....	134	147,721	8,079	967	20,133	39,788	7,130	551
1939.....	39	9,008	1,612	109	2,608	2,421	347	42
Oklahoma:								
1954.....	424	116,235	8,170	745	17,173	31,826	5,080	528
1939.....	93	8,749	1,901	191	3,045	2,545	512	64
Texas:								
1954.....	888	385,178	23,657	2,300	51,857	102,224	15,660	1,769
1939.....	325	52,069	8,658	688	14,719	14,267	2,511	270

Table 2.—COMPARATIVE STATISTICS FOR THE OIL AND GAS FIELD CONTRACT SERVICES INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954 AND 1939—Continued
(For explanation of column captions, see INTRODUCTION)

Industry, subindustry, geographic division, State, and year	Number of operating companies	Amount received or due for services (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		Aggregate horsepower rating of power equipment (1,000)
			Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
DRILLING OIL AND GAS WELLS INDUSTRY—Continued								
Mountain:								
1954 ⁵	206	96,827	5,780	485	12,075	25,645	3,179	384
1939 ⁵	29	3,672	659	42	1,207	1,055	121	21
Montana:								
1954.....	38	9,272	694	17	1,619	3,344	81	44
1939.....	14	363	61	3	97	95	5	2
New Mexico:								
1954.....	59	29,966	1,859	148	3,905	8,502	1,029	132
1939.....	15	3,309	598	39	1,110	960	116	19
Pacific:								
1954.....	98	72,955	4,691	546	8,633	22,653	4,423	360
1939.....	24	7,874	1,182	84	2,368	2,555	347	67
BUILDING, REPAIRING, AND DISMANTLING RIGS AND DERRICKS INDUSTRY								
United States:								
1954.....	120	11,657	1,539	93	1,720	4,769	452	39
1939.....	115	9,155	3,478	258	3,265	3,725	568	15
Middle Atlantic (Pennsylvania):								
1954.....	4	102	22	...	32	58	...	...
1939.....	4	42	27	...	19	21	...	...
East North Central: ⁶								
1954.....	5	79	18	...	23	44	...	...
1939.....	16	1,961	703	73	689	815	153	2
West North Central: ⁷								
1954.....	6	162	19	...	31	53	...	1
1939.....	15	472	229	8	210	200	17	1
South Atlantic (West Virginia):								
1954.....	8	98	38	...	39	62	...	...
1939.....	3	65	36	...	38	43	...	...
South Central, total:								
1954.....	82	8,801	1,241	67	1,261	3,641	275	27
1939.....	64	4,493	1,838	102	1,534	1,847	245	8
Louisiana:								
1954.....	18	2,612	266	35	370	918	101	5
1939.....	10	1,851	608	40	619	712	141	2
Oklahoma:								
1954.....	10	953	125	7	146	332	41	5
1939.....	8	198	110	9	57	73	17	...
Texas:								
1954.....	48	4,963	807	22	714	2,287	121	17
1939.....	43	2,381	1,098	52	842	1,032	87	6
Mississippi and Arkansas:								
1954.....	6	273	43	3	31	104	12	...
1939 ⁸	3	63	22	1	16	30	...	...
Mountain: ⁹								
1954.....	7	491	60	...	112	225	...	2
1939.....	3	60	25	...	31	30	...	...
Pacific (California):								
1954.....	8	1,924	141	26	222	686	177	9
1939.....	10	2,062	620	75	744	769	153	4
OIL AND GAS FIELD CONTRACT SERVICES N.E.C., INDUSTRY								
1954.....	2,502	646,618	48,447	7,834	112,339	183,091	49,022	3,772
1939.....	519	50,277	9,133	2,669	15,834	11,778	7,211	239
GEOPHYSICAL AND OTHER EXPLORATION, WELL SURVEYING, WELL LOGGING, AND CEMENTING WELLS SUBINDUSTRIES								
United States:								
1954.....	432	306,151	17,708	4,248	47,912	74,659	28,541	1,928
1939.....	99	27,037	3,442	1,869	6,864	5,448	5,199	124
Texas:								
1954.....	199	242,424	12,129	3,703	35,296	51,190	25,252	1,246
1939.....	42	19,946	2,236	1,343	4,623	3,719	3,743	76
California:								
1954.....	24	9,561	476	133	1,231	2,350	750	60
1939.....	21	4,482	825	233	1,525	1,199	916	27

Table 2.—COMPARATIVE STATISTICS FOR THE OIL AND GAS FIELD CONTRACT SERVICES INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954 AND 1939—Continued
(For explanation of column captions, see INTRODUCTION)

Industry, subindustry, geographic division, State, and year	Number of operating companies	Amount received or due for services (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		Aggregate horsepower rating of power equipment (1,000)
			Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
		DRILLING WATER WELLS SUBINDUSTRY						
United States:								
1954.....	41	1,216	122	3	203	338	2	15
1939.....	22	404	125	12	195	120	22	3
Texas:								
1954.....	15	350	55	2	64	110	2	5
1939.....	11	213	78	2	113	63	...	2
EXCAVATING SLUSH PITS AND CELLARS SUBINDUSTRY								
United States:								
1954.....	63	7,489	576	44	1,338	2,202	196	63
1939.....	73	1,852	806	32	1,239	626	51	17
Illinois:								
1954.....	6	204	17	...	30	66	...	1
1939.....	6	388	123	9	244	127	8	3
Kansas:								
1954.....	14	1,708	120	4	272	528	15	12
1939.....	16	194	92	5	137	55	4	2
Oklahoma:								
1954.....	13	1,809	127	10	366	560	33	16
1939.....	10	168	89	1	92	53	1	1
Texas:								
1954.....	13	2,109	198	4	403	601	20	17
1939.....	28	732	381	11	590	268	23	5
California:								
1954.....	5	413	28	2	52	112	6	8
1939.....	7	192	55	3	92	76	8	4
RUNNING, CUTTING, AND PULLING CASING, TUBES, AND RODS SUBINDUSTRY								
United States:								
1954.....	565	40,599	5,444	204	10,234	17,055	1,068	341
1939.....	98	1,753	865	56	1,158	757	100	15
Ohio:								
1954.....	14	233	43	...	60	91	...	2
1939.....	3	30	20	3	21	13	4	...
Illinois:								
1954.....	19	949	113	3	245	353	5	7
1939.....	4	57	26	...	42	27	...	...
Michigan:								
1954.....	13	386	55	...	101	166	...	4
1939.....	7	85	22	...	49	28	...	1
Kansas:								
1954.....	85	5,243	738	22	1,511	2,401	33	60
1939.....	11	327	162	7	219	155	5	3
Oklahoma:								
1954.....	94	4,117	683	7	1,173	1,682	17	40
1939.....	25	403	216	11	262	163	19	3
Texas:								
1954.....	187	16,842	2,148	80	4,112	6,743	626	129
1939.....	37	605	326	24	450	263	48	6
California:								
1954.....	17	3,094	283	31	568	1,437	266	26
1939.....	5	178	60	8	76	78	22	1
SHOOTING WELLS SUBINDUSTRY								
United States:								
1954.....	34	2,747	135	28	241	603	159	19
1939.....	34	3,564	257	81	390	486	324	14
Texas:								
1954.....	4	321	25	4	49	123	43	5
1939.....	10	1,949	122	38	172	224	138	6
PERFORATING WELL CASING SUBINDUSTRY								
United States:								
1954.....	14	46,037	2,342	870	6,162	11,983	5,738	55
1939.....	10	2,777	294	204	747	691	471	7
Texas:								
1954.....	5	43,009	2,158	803	5,724	10,920	5,322	47
1939.....	4	2,515	259	200	669	609	458	5

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 2.—COMPARATIVE STATISTICS FOR THE OIL AND GAS FIELD CONTRACT SERVICES INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954 AND 1939—Continued

(For explanation of column captions, see INTRODUCTION)

Industry, subindustry, geographic division, State, and year	Number of operating companies	Amount received or due for services (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		Aggregate horsepower rating of power equipment (1,000)
			Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
ACIDIZING AND OTHER CHEMICAL TREATMENT OF WELLS SUBINDUSTRY								
United States:								
1954.....	23	55,056	1,663	1,039	4,169	7,982	5,995	329
1939.....	10	3,285	202	167	375	247	464	4
Texas								
1954.....	12	53,314	1,583	1,028	3,971	7,570	5,932	324
1939.....	5	797	88	18	139	114	83	3
CLEANING OUT, BAILING OUT, AND SWABBING WELLS SUBINDUSTRY								
United States:								
1954.....	482	51,737	5,633	335	11,361	19,998	1,684	365
1939.....	37	1,586	533	55	804	643	93	8
Pennsylvania								
1954.....	17	583	76	2	211	253	1	6
1939.....	3	27	14	...	19	10	...	1
Illinois								
1954.....	30	2,976	308	10	659	1,198	29	13
1939.....	9	298	100	5	152	136	4	2
Oklahoma								
1954.....	83	9,544	991	71	2,229	3,514	362	51
1939.....	3	205	86	7	96	86	19	1
Texas								
1954.....	208	23,750	2,675	160	5,224	9,080	869	177
1939.....	15	953	304	39	489	370	63	5
New Mexico								
1954.....	16	1,785	217	9	485	696	33	40
1939.....	3	52	10	2	21	19	5	...
INSTALLING PRODUCTION EQUIPMENT SUBINDUSTRY								
United States:								
1954.....	130	15,111	2,195	147	4,101	6,338	754	86
1939.....	12	327	142	4	185	118	6	3
Kansas								
1954.....	9	341	36	...	60	107	...	1
1939.....	6	153	78	2	94	57	3	1
Texas								
1954.....	55	6,546	876	93	1,737	2,632	430	40
1939.....	3	112	28	...	45	29	...	2
ERECTING, CLEANING, REPAIRING, AND DISMANTLING LEASE TANKS SUBINDUSTRY								
United States:								
1954.....	85	6,989	922	27	1,628	2,756	138	44
1939.....	33	2,415	614	67	1,028	648	150	2
Kansas								
1954.....	15	495	64	...	96	179	...	3
1939.....	3	86	29	5	50	28	7	...
Oklahoma								
1954.....	17	978	130	2	190	260	5	9
1939.....	6	79	30	3	34	22	7	...
Texas								
1954.....	22	2,450	392	7	621	1,062	25	16
1939.....	11	606	121	22	141	102	48	1
California								
1954.....	7	1,568	124	17	268	607	105	7
1939.....	7	742	148	28	315	232	77	1

¹In addition to contracting companies classified in the United States, one company reported Alaska as the location of primary activity.²For 1954, represents contractors classified in Iowa, Missouri, North Dakota, South Dakota, and Nebraska, in addition to Kansas. For 1939, 5 or less contractors reported work primarily in Missouri, but statistics for that State are not available separately.³For 1954, represents contractors classified in Maryland, Virginia, Georgia, and Florida, in addition to West Virginia. For 1939, no oil and gas well drilling contractors reported work performed in South Atlantic States other than West Virginia.⁴For 1954, represents Mississippi, Tennessee, and Alabama, in addition to Kentucky. For 1939, 5 or less contractors reported work primarily in Mississippi, but statistics for that State are not available separately.⁵For 1954, represents Wyoming, Colorado, Arizona, and Utah, in addition to Montana and New Mexico. For 1939, 6 or less contractors reported work primarily in Wyoming and Colorado, but statistics for those States are not available separately.⁶For 1954, represents Ohio and Michigan. For 1939, represents Ohio, Illinois, and Michigan.⁷For 1954, represents North Dakota and Kansas. For 1939, represents Kansas.⁸Represents Arkansas only.⁹For 1954, represents Wyoming, New Mexico, and Utah. For 1939, represents Wyoming and New Mexico.

Table 3A.—DETAILED STATISTICS FOR THE DRILLING OIL AND GAS WELLS CONTRACT SERVICES INDUSTRY, BY GEOGRAPHIC DIVISIONS AND STATES: 1954

(Contractors were requested to prepare one report for all oil and gas field contract services performed in the United States. These reports were classified on the basis of the principal kind of work and the principal State in which the service was performed. For explanation of line captions, see INTRODUCTION)

Item	United States, total	Middle Atlantic			East North Central		
		Total	New York	Pennsylvania	Total	Ohio	Indiana
Number of operating companies.....	2,846	165	33	132	346	111	54
Number of establishments.....	2,869	165	33	132	348	111	54
Amount received or due for services, total ⁵.....\$1,000..	972,745	10,362	975	9,387	50,605	5,878	3,177
Receipts for services in the specified State by contractors classified in that State as percent of line 3.....percent.	xxx	91	97	79	81	88	81
Receipts for services in the specified State by contractors classified in all States as percent of line 3 ⁶.....do....	xxx	102	105	92	84	92	119
Drilling oil, gas, dry, and service wells.....\$1,000..	845,973	8,061	700	7,361	36,838	4,852	2,576
Drilling in, spudding in, tailing in, and reworking wells.....do....	46,984	626	198	428	2,754	(D)	(D)
Running, cutting, and pulling casing, tubes, and rods ⁷.....do....	2,847	60	(D)		160	30	19
Cleaning out, bailing out, and swabbing wells.....do....	4,205			221	633	56	40
Other services classified in the oil and gas field contract services industries ⁸.....do....	6,504	417	(D)	244	635	150	27
Services classified in other industries.....do....	2,911	296	..	296	391	65	42
Crude petroleum shipped.....do....	954,177	304	65	239	8,203	331	420
Natural gas shipped.....do....	4,528	598	..	598	427	292	4
Products purchased and resold without further processing.....do....	4,616	..	..	..	564	(D)	(D)
Value added in mining services.....do....	623,967	7,893	854	7,039	36,191	4,537	2,330
Number of persons engaged, total.....do....	71,375	1,332	190	1,142	4,416	925	405
Production and development workers.....do....	62,145	1,045	131	914	3,738	742	328
All other employees.....do....	5,831	47	5	42	224	30	8
Proprietors and firm members.....do....	3,399	240	54	186	454	153	69
Performing manual labor.....do....	1,684	134	29	105	221	92	38
Man-hours worked by production and development workers, total.....1,000..	133,216	2,355	282	2,073	7,156	1,383	555
Drilling wells and rig building.....do....	125,708	2,068	272	1,796	6,765	1,333	512
Exploration work (except drilling).....do....	342	..	..	..	46	1	17
Operating and maintaining wells.....do....	1,500	55	2	53	134	29	3
Other work.....do....	5,666	232	8	224	211	20	23
Principal expenses designated below, total.....\$1,000..	686,173	6,621	572	6,049	31,043	4,060	2,042
Wages of production and development workers.....do....	264,797	3,650	425	3,225	13,507	2,313	946
Salaries of all other employees.....do....	39,515	169	14	155	1,223	89	28
Supplies.....do....	10291,995	2,260	91	2,169	1011,793	1,294	10805
Products purchased for resale.....do....	6,794	1	..	1	574	19	8
Fuel purchased.....do....	36,704	325	36	289	1,988	176	146
Electric energy purchased.....do....	320	11	1	10	28	4	1
Subcontract work.....do....	46,048	205	5	200	1,930	165	108
Purchased machinery installed.....do....	120,385	920	59	861	4,599	584	270
Capital expenditures, total.....do....	153,468	1,253	71	1,182	6,498	901	491
Development and exploration of mineral property.....do....	23,416	172	..	172	1,081	199	155
New construction and major alterations of fixed structures.....do....	1,939	8	1	7	158	32	252
New machinery and equipment.....do....	99,722	976	50	926	4,299	606	252
Used plant and equipment.....do....	28,391	97	20	77	960	64	84
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....1,000..	4,265	73	10	63	187	32	15
Per production worker.....do....	69	70	76	69	50	43	46
Prime movers.....do....	4,247	73	10	63	186	32	15
Electric motors driven by purchased energy.....do....	18	..	..	..	1	..	..
Horsepower rating of electric motors driven by energy generated at the establishment.....do....	89	1	..	1	..	..	..
Energy used.....million kwh equivalent..	23,302	127	12	115	687	101	49
Natural gas produced and used at same establishment.....million cu. ft..	362	7	..	7	2	..	..
Fuels purchased:							
Coal.....1,000 short tons..	4	(11)	..	(11)	1	(11)	1
Fuel oils.....1,000 barrels..	2,108	11	(11)	11	129	3	5
Natural gas.....million cu. ft..	47,339	186	16	170	556	229	15
Other fuels.....\$1,000..	19,943	195	27	168	1,146	103	112
Electric energy purchased.....million kwh..	18	(11)	(11)	(11)	1	(11)	(11)
Electric energy generated and used.....do....	113	(11)	..	(11)	1	..	..
Water intake.....million gallons..	8,313	230	9	221	195	23	4
Per production worker.....do....	0.13	0.22	0.57	0.24	0.05	0.03	0.01
Wells drilled and completed on contract for others:							
Number drilled.....	42,965	980	301	679	4,322	763	495
Footage drilled.....1,000 ft..	164,850	2,124	393	1,731	9,349	1,567	706
Cost of drilling and equipping done by contractors.....\$1,000..	694,857	6,777	497	6,280	29,893	3,783	2,224
Wells drilled and completed except those drilled on contract for others:							
Number drilled.....	3,011	99	4	95	398	79	65
Footage drilled.....1,000 ft..	10,631	335	(D)	(D)	940	162	137
Cost of drilling and equipping.....\$1,000..	74,539	1,791	(D)	(D)	4,959	789	701

See footnotes at end of table.

Table 3A.--DETAILED STATISTICS FOR THE DRILLING OIL AND GAS WELLS CONTRACT

Item	East North Central—Continued		West North Central				
	Illinois	Michigan	Total	North Dakota	Nebraska	Kansas	Iowa, Missouri, and South Dakota ¹
1 Number of operating companies.....	135	46	303	8	13	277	5
2 Number of establishments.....	137	46	304	8	13	278	5
3 Amount received or due for services, total ⁵.....\$1,000..	33,653	7,897	60,154	3,673	3,774	51,939	768
4 Receipts for services in the specified State by contractors classified in that State as percent of line 3.....percent..	71	99	79	73	33	91	63
5 Receipts for services in the specified State by contractors classified in all States as percent of line 3 ⁶.....do....	74	101	118	275	157	105	88
6 Drilling oil, gas, dry, and service wells.....\$1,000..	22,593	6,817	45,709	3,063	3,391	38,601	654
7 Drilling in, spudding in, tailing in, and reworking wells.....do....	2,573	47	3,879	...	33	3,846	...
8 Running, cutting, and pulling casing, tubes, and rods ⁷.....do....	95	16	14	...	...	14	...
9 Cleaning out, bailing out, and swabbing wells.....do....	500	37	733	(D)	...	717	(D)
10 Other services classified in the oil and gas field contract services industries ⁸.....do....	407	51	701	...	...	662	39
11 Services classified in other industries.....do....	263	21	381	...	...	381	...
12 Crude petroleum shipped.....do....	6,671	781	8,173	558	340	7,275	...
13 Natural gas shipped.....do....	4	127	478	35	10	433	...
14 Products purchased and resold without further processing.....do....	547	...	86	(D)	...	10	(D)
15 Value added in mining services.....do....	23,777	5,547	39,884	2,472	2,667	34,353	392
16 Number of persons engaged, total.....do....	640	640	4,468	172	229	4,005	62
17 Production and development workers.....do....	2,133	535	3,743	149	194	3,349	51
18 All other employees.....do....	128	58	348	15	25	301	7
19 Proprietors and firm members.....do....	185	47	377	8	10	355	4
20 Performing manual labor.....do....	72	19	165	3	2	158	2
21 Man-hours worked by production and development workers, total.....1,000..	4,033	1,185	7,527	384	351	6,665	127
22 Drilling wells and rig building.....do....	3,773	1,147	7,030	384	351	6,189	106
23 Exploration work (except drilling).....do....	28	...	22	...	...	4	18
24 Operating and maintaining wells.....do....	89	13	169	...	...	169	...
25 Other work.....do....	143	25	306	...	...	303	3
26 Principal expenses designated below, total.....\$1,000..	19,244	5,697	38,461	2,306	2,500	32,980	675
27 Wages of production and development workers.....do....	7,744	2,504	15,072	857	866	13,091	258
28 Salaries of all other employees.....do....	651	455	1,855	118	177	1,511	49
29 Supplies.....do....	107,555	2,139	1015,452	1,094	1,100	1013,036	222
30 Products purchased for resale.....do....	547	...	112	...	...	36	76
31 Fuel purchased.....do....	1,276	390	2,287	78	121	2,043	45
32 Electric energy purchased.....do....	22	1	21	...	...	21	...
33 Subcontract work.....do....	1,449	208	3,662	159	236	3,242	25
34 Purchased machinery installed.....do....	2,791	954	6,976	155	489	6,201	131
35 Capital expenditures, total.....do....	3,764	1,342	8,240	285	839	6,993	123
36 Development and exploration of mineral property.....do....	460	267	1,042	116	179	747	...
37 New construction and major alterations of fixed structures.....do....	113	926	138	...	...	137	1
38 New machinery and equipment.....do....	2,528	...	5,396	...	...	4,726	122
39 Used plant and equipment.....do....	663	149	1,664	169	660	1,383	...
40 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....1,000 hp..	102	38	218	12	13	188	5
41 Per production worker.....hp....	48	71	58	81	67	56	98
42 Prime movers.....1,000 hp..	101	38	217	12	13	187	5
43 Electric motors driven by purchased energy.....do....	1	...	1	...	...	1	...
44 Horsepower rating of electric motors driven by energy generated at the establishment.....do....	...	...	5	...	...	5	...
45 Energy used.....million kwh equivalent..	431	106	802	31	31	726	14
46 Natural gas produced and used at same establishment.....million cu. ft..	...	2	38	5	...	33	...
47 Fuels purchased:							
48 Coal.....1,000 short tons..	...	...	2	...	...	2	...
49 Fuel oils.....1,000 barrels..	89	32	184	2	7	170	5
50 Natural gas.....million cu. ft..	303	9	474	33	...	441	...
51 Other fuels.....\$1,000..	739	192	1,254	60	78	1,095	21
Electric energy purchased.....million kwh..	1	(11)	1	...	...	1	...
52 Electric energy generated and used.....do....	1	...	1	...	...	1	...
53 Water intake.....million gallons..	119	49	502	138	31	333	...
54 Per production worker.....do....	0.06	0.09	0.13	0.93	0.16	0.10	...
Wells drilled and completed on contract for others:							
55 Number drilled.....	2,622	442	4,699	95	181	4,404	19
56 Footage drilled.....1,000 ft..	5,881	1,195	12,571	633	933	10,970	35
57 Cost of drilling and equipping done by contractors.....\$1,000..	18,453	5,433	34,425	2,300	2,745	29,087	293
Wells drilled and completed except those drilled on contract for others:							
58 Number drilled.....	185	69	363	32	14	317	...
59 Footage drilled.....1,000 ft..	459	182	1,201	155	68	978	...
60 Cost of drilling and equipping.....\$1,000..	2,433	1,036	6,985	1,215	524	5,246	...

See footnotes at end of table.

OIL AND GAS FIELD CONTRACT SERVICES

13D-11

SERVICES INDUSTRY, BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

South Atlantic				East South Central				West South Central				
Total	Virginia	West Virginia	Maryland, Georgia, and Florida ²	Total	Kentucky	Mississippi	Tennessee and Alabama ³	Total	Arkansas	Louisiana	Oklahoma	Texas
110	7	96	7	167	140	19	9	1,461	18	134	424	888
111	7	97	7	169	140	20	9	1,466	18	134	425	889
8,824	735	7,192	897	20,604	9,735	10,628	241	652,414	3,280	147,721	116,235	385,178
85	81	86	63	81	86	77	73	91	88	65	83	87
102	81	95	175	125	100	140	381	93	165	77	99	97
7,887	721	6,287	879	17,550	7,938	9,389	223	573,875	2,949	{ 136,902 7,898 }	109,167	{ 332,780 19,172 }
168	...	168	...	786	(D)	424	(D)	34,993				
...	...	...	...	28	28	...	...	1,499	...	(D)	(D)	1,269
...	...	...	...	82	(D)	(D)	...	1,903	...	146	750	1,007
192	(D)	258	(D)	373	92	273	8	3,795	...	32	332	3,431
83	...	(D)	(D)	60	43	15	2	1,486	...	219	156	1,111
199	(D)	(D)	...	1,662	(D)	(D)	...	929,688	313	2,053	5,186	922,136
246	...	246	...	48	21	27	...	2,291	18	187	469	1,617
49	...	(D)	(D)	15	(D)	...	(D)	2,884	...	(D)	(D)	2,655
7,506	495	6,449	562	13,397	6,570	6,672	155	412,554	2,301	96,696	72,932	240,625
1,319	117	1,123	79	2,223	1,274	911	38	45,811	289	9,154	9,363	27,005
1,095	98	937	60	1,898	1,040	831	27	40,155	249	8,079	8,170	23,657
52	10	29	13	104	51	53	...	4,025	13	967	745	2,300
172	9	157	6	221	183	27	11	1,631	27	108	448	1,048
67	4	58	5	128	106	13	9	777	9	78	199	491
2,374	205	2,033	136	3,481	1,865	1,571	45	89,615	452	20,133	17,173	51,857
2,296	202	1,958	136	3,223	1,824	1,355	44	84,540	446	19,478	16,210	48,406
5	...	5	...	5	4	...	1	202	...	50	37	115
17	3	14	...	86	16	70	...	944	2	93	326	523
56	...	56	...	167	21	146	...	3,929	4	512	600	2,813
6,941	622	5,676	643	14,031	6,274	7,610	147	464,265	2,102	100,094	81,077	280,992
3,529	328	2,952	249	6,046	2,776	3,211	59	174,695	857	39,788	31,826	102,224
188	59	75	54	540	208	332	...	27,938	68	7,130	5,080	15,660
102,718	202	102,270	286	5,682	2,354	3,290	38	101,995,538	774	42,393	1034,263	{ 122,286 5,043 }
40	...	...	...	...	...	...	...	5,221	...			
247	6	193	48	918	432	472	14	24,800	140	5,872	4,122	14,666
6	1	5	...	4	4	...	...	187	...	27	50	110
213	26	181	6	841	500	305	36	31,886	263	4,884	5,736	21,003
1,445	(D)	455	(D)	2,312	519	1,785	8	87,736	381	30,251	13,660	43,444
3,351	(D)	2,361	(D)	2,550	644	1,896	10	109,508	579	32,402	14,528	61,999
1,345	...	1,345	...	154	76	78	...	15,253	105	2,289	1,347	11,512
24	...	(D)	(D)	166	(D)	1,338	...	1,338	...	270	239	829
1,838	(D)	909	(D)	1,333	346	1,146	7	71,994	400	26,123	10,955	34,516
144	(D)	107	(D)	897	222	672	3	20,923	74	3,720	1,987	15,142
58	3	49	6	122	61	58	3	2,863	15	551	528	1,769
53	31	52	100	64	59	70	111	71	60	68	65	75
57	3	48	6	122	61	58	3	2,852	15	550	526	1,761
1	...	1	...	...	...	...	...	11	...	1	2	8
...	...	...	...	...	...	...	...	78	...	51	2	25
116	2	97	17	624	208	413	3	18,619	43	5,859	3,315	9,402
5	1	4	...	204	204	...	...	97	...	22	75	...
...
9	...	2	7	56	20	36	(11)	1,275	8	457	125	685
194	1	189	4	1,140	120	1,020	...	42,468	18	15,207	7,805	19,438
158	6	138	14	459	296	152	11	13,337	96	1,564	2,697	8,980
(11)	(11)	(11)	...	(11)	(11)	...	...	12	...	2	3	7
...	...	...	...	1	1	...	...	91	...	22	15	54
24	...	22	2	63	37	25	1	6,534	19	1,275	814	4,426
0.02	...	0.02	0.03	0.03	0.04	0.03	0.04	0.16	0.08	0.16	0.10	0.19
541	33	488	20	1,559	1,257	262	40	25,539	214	3,313	7,441	14,571
1,645	142	1,387	116	3,993	2,008	1,926	59	109,933	763	21,052	22,429	65,689
6,935	600	5,631	704	15,287	6,081	9,044	162	469,124	2,188	110,927	82,319	273,690
166	1	165	...	37	22	15	...	1,746	27	58	465	1,196
485	(D)	(D)	...	129	(D)	(D)	...	6,498	99	339	1,309	4,751
3,600	(D)	(D)	...	538	(D)	(D)	...	45,541	468	4,799	7,176	33,098

Table 3A.—DETAILED STATISTICS FOR THE DRILLING OIL AND GAS WELLS CONTRACT SERVICES INDUSTRY, BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

Item	Mountain						Pacific (California)
	Total	Montana	Wyoming	Colorado	New Mexico	Arizona and Utah ⁴	
Number of operating companies.....	206	38	54	44	59	11	98
Number of establishments.....	207	38	54	44	60	11	99
Amount received or due for services, total ⁵.....\$1,000..	96,827	9,272	33,026	22,328	29,966	2,235	72,955
Receipts for services in the specified State by contractors classified in that State as percent of line 3.....percent..	85	73	82	68	62	52	93
Receipts for services in the specified State by contractors classified in all States as percent of line 3 ⁶.....do....	128	136	113	119	137	210	97
Drilling oil, gas, dry, and service wells.....\$1,000..	88,989	9,011	{ 29,493 }	21,411	{ 27,713 }	2,022	{ 67,064 }
Drilling in, spudding in, tailing in, and reworking wells.....do....	1,995						
Running, cutting, and pulling casing, tubes, and rods ⁷.....do....	63						
Cleaning out, bailing out, and swabbing wells.....do....	498						
Other services classified in the oil and gas field contract services industries ⁸.....do....	271	74	65	62	...	70	416
Services classified in other industries.....do....	166	60	38	...	68	...	48
Crude petroleum shipped.....do....	4,251	64	2,547	591	906	143	1,697
Natural gas shipped.....do....	376	(D)	(D)	48	304	...	64
Products purchased and resold without further processing.....do....	218	(D)	...	(D)	202	...	800
Value added in mining services.....do....	59,474	6,158	22,075	11,465	18,724	1,052	47,068
Number of persons engaged, total.....	6,468	765	1,835	1,653	2,055	160	5,338
Production and development workers.....	5,780	694	1,586	1,504	1,859	137	4,691
All other employees.....	485	17	209	100	148	11	546
Proprietors and firm members.....	203	54	40	49	48	12	101
Performing manual labor.....	107	32	16	25	27	7	55
Man-hours worked by production and development workers, total.....1,000..	12,075	1,619	3,491	2,764	3,905	296	8,633
Drilling wells and rig building.....do....	11,721	1,493	3,415	2,748	3,772	293	8,065
Exploration work (except drilling).....do....	3	...	...	...	3	...	59
Operating and maintaining wells.....do....	29	7	21	...	1	...	66
Other work.....do....	322	119	55	16	129	3	443
Principal expenses designated below, total.....\$1,000..	70,699	6,748	22,466	17,363	22,143	1,979	54,112
Wages of production and development workers.....do....	25,645	3,344	7,560	5,498	8,502	741	22,653
Salaries of all other employees.....do....	3,179	81	1,428	584	1,029	57	4,423
Supplies.....do....	32,799	2,593	{ 10,462 }	8,921	{ 9,862 }	1,013	21,758
Products purchased for resale.....do....	243						
Fuel purchased.....do....	4,080						
Electric energy purchased.....do....	29						
Subcontract work.....do....	4,724	130	1,561	1,327	1,621	85	2,587
Purchased machinery installed.....do....	10,679	757	4,633	2,355	2,601	333	5,718
Capital expenditures, total.....do....	15,201	966	7,160	2,773	3,971	331	6,867
Development and exploration of mineral property.....do....	3,582	23	2,006	326	1,227	...	787
New construction and major alterations of fixed structures.....do....	36	3	4	21	8	...	71
New machinery and equipment.....do....	8,883	929	4,124	1,540	2,054	236	5,003
Used plant and equipment.....do....	2,700	11	1,026	886	682	95	1,006
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....1,000 hp..	384	44	124	72	132	12	360
Per production worker.....hp....	66	63	78	48	71	88	77
Prime movers.....1,000 hp..	381	44	121	72	132	12	359
Electric motors driven by purchased energy.....do....	3	...	3	...	...	...	1
Horsepower rating of electric motors driven by energy generated at the establishment.....do....	1	...	...	1	...	...	4
Energy used.....million kwh equivalent..	1,623	391	476	300	434	22	704
Natural gas produced and used at same establishment.....million cu. ft..	9	1	...	8	...	...	...
Fuels purchased:							
Coal.....1,000 short tons..	...	...	...	...	...	...	(11)
Fuel oils.....1,000 barrels..	245	68	91	51	31	4	199
Natural gas.....million cu. ft..	1,881	766	318	119	678	...	440
Other fuels.....\$1,000..	2,486	155	884	696	689	62	908
Electric energy purchased.....million kwh..	2	...	2	(11)	(11)	...	2
Electric energy generated and used.....do....	4	1	1	1	1	...	15
Water intake.....million gallons..	552	58	140	186	167	1	213
Per production worker.....do....	0.10	0.08	0.09	0.12	0.09	0.01	0.05

See footnotes at end of table.

Table 3A.—DETAILED STATISTICS FOR THE DRILLING OIL AND GAS WELLS CONTRACT SERVICES INDUSTRY, BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

Item	Mountain						Pacific (California)
	Total	Montana	Wyoming	Colorado	New Mexico	Arizona and Utah ⁴	
Wells drilled and completed on contract for others:							
Number drilled.....	3,441	295	884	1,346	881	35	1,884
Footage drilled.....1,000 ft..	16,419	1,266	4,813	6,175	4,030	135	8,816
Cost of drilling and equipping done by contractors.....\$1,000..	76,325	7,507	25,092	18,580	23,730	1,416	56,091
Wells drilled and completed except those drilled on contract for others:							
Number drilled.....	170	12	69	52	31	6	32
Footage drilled.....1,000 ft..	874	(D)	389	262	175	(D)	169
Cost of drilling and equipping.....\$1,000..	9,029	(D)	3,991	1,331	2,878	(D)	2,096

D Withheld to avoid approximately disclosing figures for individual companies.

¹Represents 2 establishments in Iowa, 1 in Missouri, and 2 in South Dakota.

²Represents 3 establishments in Maryland, 3 in Georgia, and 1 in Florida.

³Represents 6 establishments in Tennessee and 3 in Alabama.

⁴Represents 1 establishment in Arizona and 10 in Utah.

⁵Includes receipts for services not classified in these industries, such as prospect and test drilling for the metal mining and bituminous coal industries; other drilling for the nonmetallic minerals, except fuels, industries; road construction and maintenance; oil and gas field machine shop work; miscellaneous work; and receipts for products purchased and resold without further processing.

⁶Each contractor was asked to report the amount received or due for work performed in each State. Thus, it was possible to determine the total amount received by these contractors for work in each State, even though other State statistics were based on the classification of the establishment according to the State for which the total amount received was greatest. The ratio in this line has been computed to indicate the extent to which contract work in the specified State or States was done by contractors classified in other States. In Industry 1331, Drilling Oil and Gas Wells, in addition to the States shown, contractors reported receipts for services in Idaho, Nevada, Washington, Oregon, and Alaska. Receipts were \$2,314,000 for work in these States and Alaska.

⁷Includes plugging and abandoning wells.

⁸For details on kinds of work performed, see table 4.

⁹Includes receipts for field condensate and drips shipped in Texas, amounting to less than 0.1 percent of the receipts for crude petroleum shipped in that State.

¹⁰See table 1, footnote 5.

¹¹See table 1, footnote 6.

Table 3B.—DETAILED STATISTICS FOR THE BUILDING, REPAIRING, AND DISMANTLING RIGS AND
(Contractors were requested to prepare one report for all oil and gas field contract services performed
and the principal State in which the service was performed.)

	Item	United States, total	Middle Atlantic (Pennsylvania)	East North Central (Ohio and Michigan) ¹	West North Central (North Dakota and Kansas) ²	South Atlantic (West Virginia)
1	Number of operating companies ⁵	120	4	5	6	8
2	Amount received or due for services, total ⁶.....\$1,000..	11,657	102	79	162	98
3	Receipts for services in the specified State by contractors classified in that State as percent of line 2.....percent..	xxx	82	100	100	92
4	Receipts for services in the specified State by contractors classified in all States as percent of line 2 ⁷.....do....	xxx	82	104	110	102
5	Building, repairing, and dismantling rigs and derricks....\$1,000..	10,736	102	79	148	98
6	Other services classified in the oil and gas field contract services industries ⁸.....do....	335	...	...	14	...
7	Services classified in other industries.....do....	421	...	...	...	...
8	Products purchased and resold without further processing...do....	165	...	...	...	...
9	Value added in mining services.....do....	9,552	99	67	122	96
10	Number of persons engaged, total.....	1,763	26	23	27	47
11	Number of employees, total.....	1,632	22	18	19	38
12	Number employed in the specified State by contractors classified in that State as percent of line 11.....	xxx	100	94	126	100
13	Number employed in the specified State by contractors classified in all States as percent of line 11.....do....	xxx	100	133	126	100
14	Production and development workers.....	1,539	22	18	19	38
15	All other employees.....	93	...	...	...	...
16	Proprietors and firm members.....	131	4	5	8	9
17	Performing manual labor.....	68	2	2	6	2
18	Man-hours worked by production and development workers, total.....\$1,000..	1,720	32	23	31	39
19	Drilling wells and rig building.....do....	1,446	32	23	25	39
20	Other work.....do....	274	...	...	6	...
21	Principal expenses designated below, total.....\$1,000..	7,416	61	56	93	66
22	Wages of production and development workers.....do....	4,769	58	44	53	62
23	Salaries of all other employees.....do....	452	...	...	...	...
24	Supplies.....do....	1,524	...	9	28	2
25	Products purchased for resale.....do....	165	...	...	...	...
26	Fuel purchased.....do....	308	3	3	12	1
27	Electric energy purchased.....do....	3	...	...	...	...
28	Contract work.....do....	195	...	...	...	1
29	Purchased machinery installed.....do....	347	...	...	1	...
30	Capital expenditures, total.....do....	437	...	...	1	2
31	Development and exploration of mineral property.....do....	...	...	...	...	...
32	New construction and major alterations of fixed structures.do....	56	...	...	...	2
33	New machinery and equipment.....do....	308	...	...	1	...
34	Used plant and equipment.....do....	73	...	...	...	...
35	Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....\$1,000..	39	...	...	1	...
36	Per production worker.....	25	...	...	53	...
37	Prime movers.....\$1,000..	39	...	...	1	...
38	Electric motors driven by purchased energy.....do....	...	...	...	...	...
39	Horsepower rating of electric motors driven by energy generated at the establishment.....do....	...	...	...	...	...
40	Energy used.....million kwh equivalent..	84	1	2	3	(⁹)
41	Coal.....\$1,000 short tons..	1	...	...	...	...
42	Fuel oil.....\$1,000 barrels..	9	...	...	...	...
43	Natural gas.....million cu. ft..	8	...	8	...	...
44	Other fuels.....\$1,000..	264	3	1	12	1
45	Electric energy purchased.....million kwh..	(⁹)	...	...	...	...
46	Electric energy generated and used.....do....	(⁹)	...	...	...	...
47	Water intake.....million gallons..	21	...	...	...	...
48	Per production worker.....do....	0.01	...	...	...	...

D Withheld to avoid approximately disclosing figures for individual companies.

¹Represents 2 establishments in Ohio and 3 in Michigan.

²Represents 2 establishments in North Dakota and 4 in Kansas.

³Represents 3 establishments in Mississippi and 3 in Arkansas.

⁴Represents 3 establishments in Wyoming, 3 in New Mexico, and 1 in Utah.

⁵In this industry the number of operating companies is the same as the number of establishments.

DERRICKS CONTRACT SERVICES INDUSTRY, BY GEOGRAPHIC DIVISIONS AND STATES: 1954

in the United States. These reports were classified on the basis of the principal kind of work performed
 For explanation of line captions, see INTRODUCTION)

South Central					Mountain (Wyoming, New Mexico, and Utah) ⁴	Pacific (California)	
Total	Louisiana	Oklahoma	Texas	Mississippi and Arkansas ³			
82	18	10	48	6	7	8	1
8,801	2,612	953	4,963	273	491	1,924	2
97	94	89	95	85	77	100	3
98	95	89	101	123	119	100	4
8,059	2,488	953	4,561	273	486	1,764	5
284	(D)		51		(D)	44	6
458	(D)		308		(D)	116	7
		...	43	...			8
7,247	2,192	757	4,058	240	413	1,508	9
1,399	321	146	878	54	68	173	10
1,308	301	132	829	46	60	167	11
103	109	102	95	139	102	107	12
103	111	102	98	167	110	107	13
1,241	266	125	807	43	60	141	14
67	35	7	22	3	...	26	15
91	20	14	49	8	8	6	16
45	9	8	22	6	6	5	17
1,261	370	146	714	31	112	222	18
1,004	322	117	534	31	112	211	19
257	48	29	180	...	...	11	20
5,520	1,427	571	3,373	149	303	1,317	21
3,641	918	332	2,287	104	225	686	22
275	101	41	121	12	...	177	23
1,114	360	129	643	29	52	400	24
84		38	37	...			25
239	44		153	4	26	24	26
3	2		1	...	...	...	27
164	2	31	131	...	...	30	28
274	88	75	107	4	(D)	(D)	29
324	76	77	167	4	(D)	(D)	30
...	...	...	...	...	...	...	31
54	...	1	53	...	...	...	32
270	76	76	74	4	(D)	(D)	33
	...		40	...	(D)	...	34
27	5	5	17	...	2	9	35
22	19	40	21	...	33	64	36
27	5	5	17	...	2	9	37
...	...	...	...	...	...	...	38
...	...	...	...	...	...	...	39
66	15	10	40	1	6	6	40
1	...	...	1	...	...	...	41
8	5	...	3	...	...	1	42
...	...	...	...	...	...	...	43
201	25	38	134	4	26	20	44
(⁹)	(⁹)	...	(⁹)	...	...	(⁹)	45
(⁹)	(⁹)	...	...	...	...	...	46
21	(D)	...	(D)	...	...	...	47
0.02	(D)	...	(D)	...	...	...	48

⁶Includes receipts for services not classified in these industries, such as road construction and maintenance, hauling, and oil and gas field machine shop work.

⁷For explanation of computation, see table 3A, footnote 6. In Industry 1332, Building, Repairing, and Dismantling Rigs and Derricks, in addition to the States shown, contractors reported receipts for services in New York, Maryland, Florida, Montana, and Colorado. Receipts were \$42,000 for services performed in these States.

⁸Represents excavating slush pits and cellars; installing production equipment, such as wellhead fittings, pumps, and engines; erecting, cleaning, and dismantling lease tanks; and miscellaneous kinds of work.

⁹See table 1, footnote 6.

Table 3C.—DETAILED STATISTICS FOR THE OIL AND GAS FIELD CONTRACT SERVICES, N.E.C.,

(Contractors were requested to prepare one report for all oil and gas field contract services performed in the United States. These

	Item	Total	By principal kind of work performed		
			Geophysical exploration	Other exploration	Well surveying, well logging, and cementing wells
1	Number of operating companies.....	2,502	264	45	123
2	Number of establishments.....	2,526	285	45	124
3	Amount received or due for services, total ².....\$1,000..	646,618	104,513	10,302	191,336
4	Geophysical exploration.....do....	91,680	91,531	148	...
5	Other exploration.....do....	18,552	9,638	8,869	1
6	Well surveying and well logging.....do....	68,360	(D)	(D)	57,212
7	Drilling water wells.....do....	1,125	82	2	...
8	Excavating slush pits and cellars.....do....	7,357	...	...	...
9	Running, cutting, and pulling casing, tubes, and rods ¹.....do....	37,025	...	2	2
10	Cementing wells.....do....	62,697	...	...	61,810
11	Shooting wells.....do....	3,380	...	...	...
12	Perforating well casing.....do....	38,806	...	...	6,980
13	Acidizing and other chemical treatment of wells.....do....	53,295	...	...	4,084
14	Cleaning out, bailing, out, and swabbing wells.....do....	50,678	1	(D)	(D)
15	Installing production equipment, such as wellhead fittings, pumps, and engines.....do....	13,149	...	...	...
16	Erecting, cleaning, and dismantling lease tanks.....do....	7,857	...	...	...
17	Building board roads in oil and gas fields.....do....	2,577	...	...	...
18	Other services classified in the oil and gas field contract services, n.e.c., industries ³.....do....	125,522	91	...	20,613
19	Drilling oil, gas, dry, and service wells.....do....	3,950	1,034	315	...
20	Drilling in, spudding in, tailing in, and reworking wells.....do....	988	...	...	(D)
21	Building, repairing, and dismantling rigs and derricks.....do....	1,919	...	...	...
22	Hauling oil and gas field supplies and equipment.....do....	3,994	2	...	...
23	Other services.....do....	2,674	374	140	24
24	Crude petroleum shipped ⁴.....do....	1,729	(D)	...	...
25	Natural gas shipped.....do....	82	...	...	...
26	Products purchased and resold without further processing.....do....	49,222	1,713	(D)	40,495
27	Value added in mining services.....do....	485,025	74,348	6,953	145,686
28	Number of persons engaged, total.....	59,187	10,831	848	10,592
29	Production and development workers.....	48,447	9,509	501	7,698
30	All other employees.....	7,834	1,180	298	2,770
31	Proprietors and firm members.....	2,906	142	49	124
32	Performing manual labor.....	1,348	124	24	88
33	Man-hours worked by production and development workers, total.....1,000..	112,339	22,702	1,276	23,934
34	Drilling wells and rig building.....do....	4,398	472	126	17
35	Exploration work (except drilling).....do....	23,447	21,601	841	731
36	Operating and maintaining wells.....do....	209	3	2	...
37	Other work.....do....	84,285	626	307	23,186
38	Principal expenses designated below, total.....\$1,000..	402,031	76,246	6,940	106,821
39	Wages of production and development workers.....do....	183,091	38,570	2,243	33,846
40	Salaries of all other employees.....do....	49,022	7,273	1,381	19,887
41	Supplies.....do....	101,257	18,776	2,094	23,272
42	Products purchased for resale.....do....	30,041	1,915	695	22,258
43	Fuel purchased.....do....	21,657	3,200	386	5,743
44	Electric energy purchased.....do....	880	105	1	386
45	Subcontract work.....do....	16,083	6,407	140	1,429
46	Purchased machinery installed.....do....	55,673	5,746	791	14,518
47	Capital expenditures, total.....do....	63,998	5,984	758	21,956
48	Development and exploration of mineral property.....do....	328	...	...	...
49	New construction and major alterations of fixed structures.....do....	2,804	19	13	911
50	New machinery and equipment.....do....	57,543	5,754	606	20,951
51	Used plant and equipment.....do....	3,323	211	139	94
52	Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....1,000..	3,772	890	45	993
53	Per production worker.....	78	94	90	129
54	Prime movers.....1,000..	3,748	886	45	988
55	Electric motors driven by purchased energy.....do....	24	4	...	5
56	Horsepower rating of electric motors driven by energy generated at the establishment.....do....	7	...	2	4
57	Energy used ⁶.....million kwh equivalent..	6,606	844	98	1,662
58	Coal.....1,000 short tons..	(7)	...	...	...
59	Fuel oil.....1,000 barrels..	265	19	2	4
60	Natural gas.....million cu. ft..	3,543	139	...	709
61	Other fuels.....\$1,000..	19,887	3,045	380	5,595
62	Electric energy purchased.....million kwh..	77	8	(7)	38
63	Electric energy generated and used.....do....	5	1	...	3
64	Water intake.....million gallons..	483	87	25	28
65	Per production worker.....do....	0.01	0.01	0.05	...

D Withheld to avoid approximately disclosing figures for individual companies. ¹See table 3A, footnote 7. ²Includes receipts for services not classified in these industries, such as prospect and test drilling for the metal mining, bituminous coal, and nonmetallic minerals, except fuels, industries; exploration work for the metal mining industries; erection of steel buildings and oil field storage tanks off the lease; oil and gas field machine shop work; and products purchased and resold without further processing. ³Represents flooding and water injection, and repressuring; building board roads in oil and gas fields; pumping oil and gas wells but not operating leases; processing gas for sulfur and water removal;

INDUSTRY IN THE UNITED STATES, BY PRINCIPAL KIND OF WORK PERFORMED: 1954

reports were classified on the basis of the principal kind of work performed. For explanation of line captions, see INTRODUCTION)

By principal kind of work performed—Continued										
Drilling water wells	Excavating slush pits and cellars	Running, cutting, and pulling casing, tubes, and rods ¹	Shooting wells	Perforating well casing	Acidizing and other chemical treatment of wells	Cleaning out, bailing out, and swabbing wells	Installing production equipment such as wellhead fittings, pumps, and engines	Erecting, cleaning, repairing, and dismantling lease tanks	Building board roads in oil and gas fields	Other kinds of work
41	63	565	34	14	23	482	130	85	10	623
41	63	567	34	14	23	482	130	85	10	623
1,216	7,489	40,599	2,747	46,037	55,056	51,737	15,111	6,989	2,528	110,958
1	...	...	...	...	...	...	...	...	...	...
...
...	...	1	...	9,510	(D)	71	(D)	...	...	16
951	...	26	1	...	...	63	...	...	...	963
1	5,861	1	...	...	...	(D)	...	...	...	...
1	...	31,291	...	...	...	(D)	237	(D)	179	1,054
...	...	268	...	586	...	3,883	1,120	1	...	(D)
...	...	...	2,740	...	...	119	...	...	...	...
...	...	197	1	...	3,484	53	...	...	...	...
...	...	...	...	28,444	...	46	...	...	...	483
...	...	232	...	...	48,765	77	...	2	...	134
(D)	(D)	5,566	1	(D)	...	43,689	158	114	...	441
...	125	509	...	...	(D)	224	10,546	345	(D)	1,393
...	(D)	138	...	...	...	(D)	1,362	4,918	60	1,283
...	...	...	...	...	...	...	...	...	1,569	...
...	...	...	...	...	...	...	496	...	...	98,173
...	806	273	...	4,450	31	515	...	673	409	...
137	...	795	2	...	...	1,475	(D)	...	...	(D)
...	...	279	...	...	...	354	...	...	...	(D)
(D)	132	3	...	...	...	...	112	(D)	...	1,332
(D)	342	429	2	...	...	383	271	620	306	1,875
...	76	86	...	...	87	146	632	208	...	932
...	...	72	...	(D)	(D)	161	...	(D)	...	4,529
...	...	...	...	...	...	31	...	...	...	51
(D)	70	433	...	2,302	1,468	407	91	47	(D)	1,532
790	5,610	32,560	1,647	35,497	36,330	40,918	12,136	5,794	1,834	84,922
179	704	6,372	188	3,222	2,713	6,586	2,474	1,044	337	13,097
122	576	5,444	135	2,342	1,663	5,633	2,195	922	296	11,411
3	44	204	28	870	1,039	335	147	27	29	860
54	84	724	25	10	11	618	132	95	12	826
31	38	301	22	8	9	261	66	46	7	323
203	1,338	10,234	241	6,162	4,169	11,361	4,101	1,628	534	24,456
181	...	372	...	1,024	...	1,483	22	52	40	609
...	...	90	...	4	...	33	...	...	...	147
...	...	7	...	1	10	2	...	...	...	184
22	1,338	9,765	241	5,133	4,159	9,843	4,079	1,576	494	23,516
783	4,229	26,217	1,871	27,619	31,056	32,533	9,981	4,204	1,630	71,901
338	2,202	17,055	603	11,983	7,982	19,998	6,338	2,756	822	38,355
2	196	1,068	159	5,738	5,995	1,684	754	138	182	4,565
276	942	5,193	1,011	6,800	14,412	6,982	1,747	5,909	376	19,016
82	53	313	41	1,335	1,347	410	67	43	9	1,473
77	519	2,102	51	601	1,295	2,363	610	357	138	4,215
...	2	66	6	81	25	21	11	1	1	174
8	315	420	...	1,081	(⁵)	1,075	454	(⁵)	102	4,103
72	1,081	4,233	198	3,999	11,982	5,272	1,019	369	224	6,169
89	1,033	4,288	207	3,357	10,335	5,304	933	484	156	9,114
...	...	121	...	112	...	55	...	...	...	88
...	16	...	8	525	316	68	54	...	1	747
89	955	3,412	55	2,718	10,006	4,319	717	339	77	7,545
...	62	755	144	2	13	862	162	67	78	734
15	63	341	19	55	329	365	86	44	17	510
123	109	63	141	23	198	65	39	48	57	45
15	61	340	19	51	329	364	86	44	17	503
...	2	1	...	4	...	1	...	...	...	7
...	...	...	...	...	...	...	...	...	...	1
30	140	610	13	182	372	669	155	91	37	61,703
...	...	(⁷)	...	...	...	...	...	...	...	...
2	22	16	(⁷)	...	(⁷)	17	3	(⁷)	5	175
34	4	266	3	95	158	271	...	6	...	1,858
67	404	1,974	48	591	1,286	2,228	594	355	113	3,207
...	(⁷)	7	(⁷)	5	1	1	1	(⁷)	(⁷)	16
...	...	...	...	...	...	1	...	...	...	...
...	14	30	1	18	18	121	4	3	...	134
...	0.02	0.01	0.01	0.01	0.01	0.02	...	...	...	0.01

and other miscellaneous services. ⁴Includes receipts for field condensate and drips shipped, amounting to less than 2 percent of the total receipts for crude petroleum shipped by establishments classified in "Other kinds of work." ⁵The cost of subcontract work is included with the cost of supplies. ⁶Includes natural gas produced and used at same establishment, amounting to 48 million cubic feet for the United States. See table 12.

⁷See table 1, footnote 6.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 3D.—DETAILED STATISTICS FOR THE OIL AND GAS FIELD CONTRACT SERVICES, N.E.C., INDUSTRY, BY
(Contractors were requested to prepare one report for all oil and gas field contract services performed
was performed and the principal kind of work performed.)

Item	United States, total	Middle Atlantic				
		Total	New York	Pennsylvania		
				Total	Principal kind of work performed	
					Cleaning out, bailing out, and swabbing wells	Other work
1 Number of operating companies.....	2,502	65	16	49	17	32
2 Number of establishments.....	2,526	65	16	49	17	32
3 Amount received or due for services, total ⁷.....\$1,000..	646,618	12,472	254	12,218	583	11,635
4 Receipts for services in the specified State by contractors classified in that State as percent of line 3.....percent..	xxx	97	80	96	xxx	xxx
5 Receipts for services in the specified State by contractors classified in all States as percent of line 3 ⁸.....do....	xxx	101	111	101	xxx	xxx
6 Value added in mining services.....\$1,000..	485,025	10,477	192	10,285	396	9,889
7 Number of persons engaged, total.....	59,187	1,501	44	1,457	102	1,355
8 Production and development workers.....	48,447	1,406	23	1,383	76	1,307
9 All other employees.....	7,834	25	2	23	2	21
10 Proprietors and firm members.....	2,906	70	19	51	24	27
11 Performing manual labor.....	1,348	39	13	26	9	17
12 Man-hours worked by production and development workers, total.....1,000..	112,339	2,898	40	2,858	211	2,647
13 Drilling wells and rig building.....do....	4,398	30	7	23	20	3
14 Exploration work (except drilling).....do....	23,447	2,475	...	2,475	...	2,475
15 Operating and maintaining wells.....do....	209	7	...	7	1	6
16 Other work.....do....	84,285	386	33	353	190	163
17 Principal expenses designated below, total.....\$1,000..	402,031	8,276	140	8,136	452	7,684
18 Wages of production and development workers.....do....	183,091	6,134	64	6,070	253	5,817
19 Salaries of all other employees.....do....	49,022	108	12	96	1	95
20 Supplies.....do....	101,257	1,834	55	1,779	182	1,597
21 Products purchased for resale.....do....	30,041	6	...	6	...	6
22 Fuel purchased.....do....	21,657	105	9	96	12	84
23 Electric energy purchased.....do....	880	83	...	83	1	82
24 Subcontract work.....do....	16,083	6	...	6	3	3
25 Purchased machinery installed.....do....	55,673	773	19	754	11	743
26 Capital expenditures, total.....do....	63,998	812	21	791	22	769
27 Development and exploration of mineral property.....do....	328	2	...	2	...	2
28 New construction and major alterations of fixed structures.....do....	2,804	22	...	22	21	637
29 New machinery and equipment.....do....	57,543	651	15	636	...	...
30 Used plant and equipment.....do....	3,323	137	6	131	1	130
31 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....1,000..	3,772	26	3	23	6	17
32 Per production worker.....	78	18	130	17	79	13
33 Prime movers.....1,000..	3,748	23	3	20	6	14
34 Electric motors driven by purchased energy.....do....	24	3	...	3	...	3
35 Horsepower rating of electric motors driven by energy generated at the establishment.....do....	7	...	...	...	...	...
36 Energy used ¹⁰.....million kwh equivalent..	6,606	57	3	54	6	48
37 Coal.....1,000 short tons..	(11)	...	...	...	...	...
38 Fuel oil.....1,000 barrels..	265	2	...	2	1	1
39 Natural gas.....million cu. ft..	3,543	113	4	109	6	103
40 Other fuels.....\$1,000..	19,887	46	8	38	6	32
41 Electric energy purchased.....million kwh..	77	7	...	7	(11)	7
42 Electric energy generated and used.....do....	5	...	...	...	...	...
43 Water intake.....million gallons..	483	4	...	4	...	4
44 Per production worker.....do....	0.01	(11)	...	(11)	...	(11)

See footnotes at end of table.

GEOGRAPHIC DIVISIONS AND STATES, AND BY PRINCIPAL KIND OF WORK PERFORMED: 1954

in the United States. These reports were classified on the basis of the principal State in which the service
For explanation of line captions, see INTRODUCTION)

East North Central											
Total	Ohio			Indiana			Illinois				
	Total	Principal kind of work performed		Total	Principal kind of work performed		Total	Principal kind of work performed			
		Running, cutting, and pulling casing, tubes, and rods	Other work		Running, cutting, and pulling casing, tubes, and rods	Other work		Well surveying, well logging, and cementing wells	Excavating slush pits and cellars	Running, cutting, and pulling casing, tubes, and rods	
180	24	14	10	25	6	19	101	5	6	19	1
180	24	14	10	25	6	19	101	5	6	19	2
11,191	388	233	155	1,322	168	1,154	8,475	1,320	204	949	3
110	97	xxx	xxx	53	xxx	xxx	99	xxx	xxx	xxx	4
216	320	xxx	xxx	145	xxx	xxx	219	xxx	xxx	xxx	5
8,448	317	192	125	1,034	133	901	6,325	791	139	781	6
1,543	93	59	34	177	35	142	1,121	75	26	147	7
1,250	64	43	21	133	26	107	940	61	17	113	8
78	4	...	4	17	1	16	55	12	...	3	9
215	25	16	9	27	8	19	126	2	9	31	10
104	10	5	5	16	4	12	55	2	3	15	11
2,433	100	60	40	259	44	215	1,860	166	30	245	12
445	8	...	8	21	...	21	407	...	...	...	13
75	15	...	15	22	...	22	29	...	...	...	14
17	...	...	...	2	...	2	...	...	...	...	15
1,896	77	60	17	214	44	170	1,424	166	30	245	16
7,490	234	134	100	945	104	841	5,663	911	154	541	17
4,062	144	91	53	357	65	292	3,177	312	66	353	18
518	14	...	14	270	4	266	233	58	...	5	19
1,910	51	25	26	200	28	172	1,527	506	967	108	20
269	18	11	7	24	...	24	181	...	...	...	21
503	...	...	...	42	7	35	389	34	21	67	22
3	...	...	...	...	...	...	3	...	...	...	23
225	7	7	...	52	...	52	153	1	(9)	8	24
711	16	7	9	70	6	64	599	62	37	68	25
878	21	9	12	100	6	94	702	74	60	83	26
39	1	...	1	26	...	26	...	...	...	...	27
675	12	...	...	27	...	...	590	69	60	77	28
164	8	9	11	47	6	68	105	4	...	6	29
62	3	2	1	6	1	5	43	5	1	7	31
50	47	47	47	45	38	47	46	82	59	62	32
61	3	2	1	6	1	5	42	5	1	7	33
1	...	...	...	...	...	...	1	...	...	...	34
...	...	...	...	...	...	...	...	...	...	...	35
146	4	3	1	10	2	8	18	9	6	17	36
...	...	...	...	...	...	...	...	...	...	...	37
2	...	...	...	(11)	...	(11)	2	...	1	...	38
77	...	...	...	...	...	...	75	...	...	...	39
477	18	11	7	40	7	33	368	34	16	67	40
(11)	...	...	...	...	...	...	(11)	...	...	...	41
...	...	...	...	...	...	...	...	...	...	...	42
3	...	...	...	1	...	1	2	...	...	...	43
...	...	...	...	0.01	...	0.01	(11)	...	...	...	44

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 3D.—DETAILED STATISTICS FOR THE OIL AND GAS FIELD CONTRACT SERVICES, N.E.C., INDUSTRY, BY

Item		East North Central—Continued							
		Illinois—Continued				Michigan			
		Principal kind of work performed—Con.				Total	Principal kind of work performed		
		Cleaning out, bailing out, and swabbing wells	Installing production equipment, such as wellhead fittings, pumps, and engines	Erecting, cleaning, repairing, and dismantling lease tanks	Other work		Running, cutting, and pulling casing, tubes, and rods	Cleaning out, bailing out, and swabbing wells	Other work
1	Number of operating companies.....	30	7	6	28	30	13	6	11
2	Number of establishments.....	30	7	6	28	30	13	6	11
3	Amount received or due for services, total ⁷.....\$1,000..	2,976	440	239	2,347	1,006	386	258	362
4	Receipts for services in the specified State by contractors classified in that State as percent of line 3.....percent..	xxx	xxx	xxx	xxx	93	xxx	xxx	xxx
5	Receipts for services in the specified State by contractors classified in all States as percent of line 3 ⁸.....do....	xxx	xxx	xxx	xxx	247	xxx	xxx	xxx
6	Value added in mining services.....\$1,000..	2,188	372	210	1,844	772	312	212	248
7	Number of persons engaged, total.....	359	89	53	372	152	72	31	49
8	Production and development workers.....	308	78	44	319	113	55	22	36
9	All other employees.....	10	4	...	26	2	...	2	...
10	Proprietors and firm members.....	41	7	9	27	37	17	7	13
11	Performing manual labor.....	17	2	4	12	23	10	5	8
12	Man-hours worked by production and development workers, total.....1,000..	659	112	77	571	214	101	47	66
13	Drilling wells and rig building.....do....	355	...	...	52	9	...	9	...
14	Exploration work (except drilling).....do....	...	...	...	29	9	...	4	5
15	Operating and maintaining wells.....do....	...	...	...	...	15	...	...	15
16	Other work.....do....	304	112	77	490	181	101	34	46
17	Principal expenses designated below, total.....\$1,000..	2,046	262	151	1,598	648	246	136	266
18	Wages of production and development workers.....do....	1,198	170	108	970	384	166	83	135
19	Salaries of all other employees.....do....	29	14	...	127	1	...	1	...
20	Supplies.....do....	410	53	918	374	137	52	27	58
21	Products purchased for resale.....do....	179	...	...	2	59	4	...	55
22	Fuel purchased.....do....	139	16	25	87	54	24	14	16
23	Electric energy purchased.....do....	...	2	...	1	...	...	...	...
24	Subcontract work.....do....	91	7	(9)	37	13	...	11	2
25	Purchased machinery installed.....do....	110	26	25	271	26	9	15	2
26	Capital expenditures, total.....do....	141	36	39	269	55	15	21	19
27	Development and exploration of mineral property.....do....	...	...	...	...	...	...	...	...
28	New construction and major alterations of fixed structures.....do....	...	...	5	1	5	...	5	...
29	New machinery and equipment.....do....	79	28	33	244	46	13	14	19
30	Used plant and equipment.....do....	62	8	1	24	4	2	2	...
31	Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....1,000..	13	1	3	13	10	4	2	4
32	Per production worker.....	42	13	68	41	88	73	91	111
33	Prime movers.....1,000..	13	1	3	12	10	4	2	4
34	Electric motors driven by purchased energy.....do....	...	...	...	1	...	...	...	...
35	Horsepower rating of electric motors driven by energy generated at the establishment.....do....	...	...	...	...	...	...	...	...
36	Energy used ¹⁰.....million kwh equivalent..	55	4	6	21	14	6	3	5
37	Coal.....1,000 short tons..	...	...	...	...	...	...	...	...
38	Fuel oil.....1,000 barrels..	1	...	...	...	...	...	...	...
39	Natural gas.....million cu. ft..	74	...	...	1	2	...	...	2
40	Other fuels.....\$1,000..	125	16	25	85	51	24	13	14
41	Electric energy purchased.....million kwh..	...	(11)	...	(11)	...	...	...	...
42	Electric energy generated and used.....do....	...	...	...	...	...	...	...	...
43	Water intake.....million gallons..	2	...	...	...	...	...	...	...
44	Per production worker.....do....	(11)	...	...	...	...	...	...	...

See footnotes at end of table.

GEOGRAPHIC DIVISIONS AND STATES, AND BY PRINCIPAL KIND OF WORK PERFORMED: 1954—Continued

West North Central										
Total	North Dakota			Kansas						
	Total	Principal kind of work performed		Total	Principal kind of work performed					
		Geophysical exploration	Other work		Geophysical exploration	Other exploration	Well surveying, well logging, and cementing wells	Excavating slush pits and cellars	Running, cutting, and pulling casing, tubes, and rods	
256	18	7	11	226	11	4	5	14	85	1
257	18	7	11	226	11	4	5	14	85	2
19,394	3,409	414	2,995	15,350	1,933	444	880	1,708	5,243	3
104	76	xxx	xxx	110	xxx	xxx	xxx	xxx	xxx	4
228	211	xxx	xxx	220	xxx	xxx	xxx	xxx	xxx	5
15,524	3,030	332	2,698	11,932	1,194	417	655	1,256	4,428	6
2,488	327	39	288	2,064	164	30	68	143	884	7
2,035	284	32	252	1,672	119	26	44	120	738	8
120	25	...	25	95	34	...	17	4	22	9
333	18	7	11	297	11	4	7	19	124	10
128	4	1	3	119	4	...	6	9	44	11
4,333	685	78	607	3,466	297	51	133	272	1,511	12
198	22	22	...	176	...	...	...	...	71	13
436	75	56	19	358	297	51	5	...	5	14
...	...	...	...	...	...	...	...	...	...	15
3,699	588	...	588	2,932	...	...	128	272	1,435	16
11,931	1,860	193	1,667	9,702	1,514	225	501	944	3,258	17
7,457	1,356	135	1,221	5,813	491	177	211	528	2,401	18
547	135	...	135	412	263	...	62	15	33	19
2,047	121	20	101	1,876	327	28	134	200	438	20
272	57	...	57	215	...	...	45	...	25	21
1,096	188	38	150	887	104	19	48	138	321	22
11	3	...	3	8	...	1	1	...	...	23
501	...	...	...	491	329	...	...	63	40	24
1,225	(D)	(D)	(D)	1,021	11	(D)	42	175	428	25
1,282	(D)	(D)	(D)	1,080	32	(D)	45	124	437	26
...	...	...	...	...	...	...	...	...	...	27
43	...	...	...	42	...	13	...	4	18	28
945	(D)	(D)	(D)	766	32	(D)	44	105	303	29
294	(D)	...	(D)	272	...	9	1	15	116	30
153	22	3	19	128	9	3	6	12	60	31
75	77	94	75	77	76	115	136	100	81	32
153	22	3	19	128	9	3	6	12	60	33
...	...	...	...	...	...	...	...	...	...	34
...	...	...	...	...	...	...	...	...	...	35
342	79	10	69	258	26	5	12	39	109	36
...	...	...	...	...	...	...	...	...	...	37
18	4	...	4	14	...	...	...	7	2	38
216	106	...	106	110	...	...	...	...	101	39
979	155	38	117	803	104	19	48	106	301	40
(11)	(11)	...	(11)	(11)	...	(11)	(11)	...	...	41
...	...	...	...	...	...	...	...	...	...	42
21	13	7	6	8	...	...	...	...	3	43
0.01	0.05	0.22	0.02	(11)	...	...	...	...	(11)	44

Table 3D.—DETAILED STATISTICS FOR THE OIL AND GAS FIELD CONTRACT SERVICES, N.E.C., INDUSTRY, BY

Item		West North Central—Continued					Missouri and Nebraska ¹
		Kansas—Continued					
		Principal kind of work performed—Continued					
		Shooting wells	Cleaning out, bailing out, and swabbing wells	Installing production equipment, such as wellhead fittings, pumps, and engines	Erecting, cleaning, repairing, and dismantling lease tanks	Other work	
1	Number of operating companies.....	3	21	9	15	59	13
2	Number of establishments.....	3	21	9	15	59	13
3	Amount received or due for services, total ⁷.....\$1,000..	115	1,168	341	495	3,023	635
4	Receipts for services in the specified State by contractors classified in that State as percent of line 3.....percent..	xxx	xxx	xxx	xxx	xxx	98
5	Receipts for services in the specified State by contractors classified in all States as percent of line 3 ⁸.....do....	xxx	xxx	xxx	xxx	xxx	509
6	Value added in mining services.....\$1,000..	78	972	263	358	2,311	562
7	Number of persons, engaged, total.....	10	168	47	83	467	97
8	Production and development workers.....	6	131	36	64	388	79
9	All other employees.....	...	4	...	...	14	...
10	Proprietors and firm members.....	4	33	11	19	65	18
11	Performing manual labor.....	3	14	6	6	27	5
12	Man-hours worked by production and development workers, total.....1,000..	12	271	60	96	763	182
13	Drilling wells and rig building.....do....	...	60	...	...	45	...
14	Exploration work (except drilling).....do....	...	...	...	...	...	3
15	Operating and maintaining wells.....do....	...	...	...	...	...	...
16	Other work.....do....	12	211	60	96	718	179
17	Principal expenses designated below, total.....\$1,000..	62	737	191	308	1,962	369
18	Wages of production and development workers.....do....	25	516	107	179	1,178	288
19	Salaries of all other employees.....do....	...	9	...	...	30	...
20	Supplies.....do....	34	140	63	76	521	50
21	Products purchased for resale.....do....	...	...	...	...	60	...
22	Fuel purchased.....do....	3	50	12	34	158	21
23	Electric energy purchased.....do....	...	5	...	...	1	...
24	Subcontract work.....do....	...	17	9	19	14	10
25	Purchased machinery installed.....do....	(D)	90	43	40	127	(D)
26	Capital expenditures, total.....do....	(D)	106	49	32	169	(D)
27	Development and exploration of mineral property.....do....	...	...	...	...	...	...
28	New construction and major alterations of fixed structures.....do....	...	...	6	...	1	1
29	New machinery and equipment.....do....	(D)	68	7	32	111	(D)
30	Used plant and equipment.....do....	...	38	36	...	57	(D)
31	Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....1,000..	1	11	1	3	22	3
32	Per production worker.....	167	84	28	47	57	38
33	Prime movers.....1,000..	1	11	1	3	22	3
34	Electric motors driven by purchased energy.....do....	...	...	...	...	...	...
35	Horsepower rating of electric motors driven by energy generated at the establishment.....do....	...	...	...	...	...	...
36	Energy used ¹⁰.....million kwh equivalent..	1	15	3	9	39	5
37	Coal.....1,000 short tons..	...	...	...	...	...	...
38	Fuel oil.....1,000 barrels..	...	2	...	...	3	...
39	Natural gas.....million cu. ft..	...	9	...	...	...	...
40	Other fuels.....\$1,000..	3	35	12	34	141	21
41	Electric energy purchased.....million kwh..	...	...	...	...	(¹¹)	...
42	Electric energy generated and used.....do....	...	...	...	...	...	...
43	Water intake.....million gallons..	...	...	...	2	3	...
44	Per production worker.....do....	...	...	...	0.03	0.01	...

See footnotes at end of table.

OIL AND GAS FIELD CONTRACT SERVICES

13D-23

GEOGRAPHIC DIVISIONS AND STATES, AND BY PRINCIPAL KIND OF WORK PERFORMED: 1954—Continued

South Atlantic							East South Central						
Total	West Virginia					Virginia and Florida ²	Total	Mississippi				Kentucky and Alabama ³	
	Total	Principal kind of work performed						Total	Principal kind of work performed				
		Running, cutting, and pulling casing, tubes, and rods	Shooting wells	Cleaning out, bailing out, and swabbing wells	Other work				Geophysical exploration	Running, cutting, and pulling casing, tubes, and rods	Other work		
37	34	12	5	9	8	3	52	21	6	5	10	32	1
37	34	12	5	9	8	3	53	21	6	5	10	32	2
1,467	1,314	227	344	199	544	153	5,770	2,874	277	893	1,704	2,896	3
97	98	xxx	xxx	xxx	xxx	93	104	73	xxx	xxx	xxx	119	4
241	155	xxx	xxx	xxx	xxx	882	250	264	xxx	xxx	xxx	235	5
1,063	920	189	113	183	435	143	4,283	2,200	257	785	1,158	2,083	6
228	207	56	25	44	82	21	844	446	43	158	245	398	7
177	160	43	16	30	71	17	767	416	33	151	232	351	8
11	11	1	7	...	3	...	17	8	3	...	5	9	9
40	36	12	2	14	8	4	60	22	7	7	8	38	10
12	10	3	2	3	2	2	32	12	4	3	5	20	11
345	304	79	22	63	140	41	1,486	808	75	298	435	678	12
12	12	...	...	8	4	...	24	...	...	...	...	24	13
40	...	...	...	...	...	40	355	75	75	...	...	280	14
...	...	...	...	...	...	...	1	...	...	...	...	1	15
293	292	79	22	55	136	1	1,106	733	...	298	435	373	16
1,004	919	146	296	112	365	85	3,815	1,813	160	515	1,138	2,002	17
555	480	104	45	95	236	75	2,270	1,097	119	413	565	1,173	18
43	43	3	21	1	18	...	61	26	1	...	25	35	19
351	346	31	225	13	77	5	1,018	458	23	58	377	560	20
2	2	...	...	...	2	...	37	31	...	...	31	6	21
51	46	8	5	3	30	5	341	152	17	44	91	189	22
...	...	...	...	...	...	...	3	...	...	...	...	3	23
2	2	...	...	...	2	...	85	49	...	...	49	36	24
83	(D)	4	1	(D)	70	(D)	308	156	14	49	93	152	25
85	(D)	5	...	(D)	72	(D)	305	172	34	43	95	133	26
...	...	...	...	...	...	...	...	...	...	...	...	...	27
...	...	...	...	...	...	...	1	...	...	...	...	1	28
69	(D)	3	...	(D)	58	(D)	247	129	20	15	94	118	29
16	16	2	...	...	14	...	57	43	14	28	1	14	30
11	11	3	1	1	6	...	33	18	...	3	15	15	31
62	69	70	63	33	85	...	43	43	...	20	65	43	32
11	11	3	1	1	6	...	33	18	...	3	15	15	33
...	...	...	...	...	...	...	...	...	...	...	...	...	34
...	...	...	...	...	...	...	...	...	...	...	...	...	35
14	13	3	1	1	8	1	91	38	4	11	23	53	36
...	...	...	...	...	...	...	(11)	(11)	...	...	(11)	(11)	37
1	1	...	...	...	1	...	22	...	...	...	...	22	38
4	4	4	...	...	...	...	337	150	17	44	89	187	39
46	41	8	5	3	25	5	(11)	...	...	...	...	(11)	40
...	...	...	...	...	...	...	...	...	...	...	...	...	41
...	...	...	...	...	...	...	...	...	...	...	...	...	42
...	...	...	...	...	...	...	13	13	5	...	8	...	43
...	...	...	...	...	...	...	0.02	0.03	0.15	...	0.03	...	44

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 3D.—DETAILED STATISTICS FOR THE OIL AND GAS FIELD CONTRACT SERVICES, N.E.C., INDUSTRY, BY

Item	West South Central				
	Total	Arkansas			
		Total	Principal kind of work performed		
			Running, cutting, and pulling casing, tubes, and rods	Cleaning out, bailing out, and swabbing wells	Other work
1 Number of operating companies.....	1,509	34	12	5	17
2 Number of establishments.....	1,515	34	12	5	17
3 Amount received or due for services, total ⁷.....\$1,000..	534,496	3,223	991	535	1,697
4 Receipts for services in the specified State by contractors classified in that State as percent of line 3.....percent..	71	91	xxx	xxx	xxx
5 Receipts for services in the specified State by contractors classified in all States as percent of line 3 ⁸.....do....	72	167	xxx	xxx	xxx
6 Value added in mining services.....\$1,000..	398,664	2,523	809	440	1,274
7 Number of persons engaged, total.....	46,193	531	196	87	248
8 Production and development workers.....	37,427	480	179	72	229
9 All other employees.....	7,024	16	7	5	4
10 Proprietors and firm members.....	1,742	35	10	10	15
11 Performing manual labor.....	803	9	2	3	4
12 Man-hours worked by production and development workers, total.....1,000..	89,315	866	305	115	446
13 Drilling wells and rig building.....do....	3,292	60	39	...	21
14 Exploration work (except drilling).....do....	17,967	151	80	...	71
15 Operating and maintaining wells.....do....	65	3	...	...	3
16 Other work.....do....	67,991	652	186	115	351
17 Principal expenses designated below, total.....\$1,000..	328,456	2,082	720	339	1,023
18 Wages of production and development workers.....do....	140,188	1,250	442	223	585
19 Salaries of all other employees.....do....	44,519	75	33	21	21
20 Supplies.....do....	83,363	477	⁹ 156	⁹ 64	272
21 Products purchased for resale.....do....	28,837	21	21	...	...
22 Fuel purchased.....do....	17,097	201	68	31	102
23 Electric energy purchased.....do....	736	...	...	...	...
24 Subcontract work.....do....	13,716	58	(⁹)	(⁹)	43
25 Purchased machinery installed.....do....	47,419	415	175	(D)	(D)
26 Capital expenditures, total.....do....	55,336	472	238	(D)	(D)
27 Development and exploration of mineral property.....do....	192	4	...	...	4
28 New construction and major alterations of fixed structures.do....	2,530	...	...	...	...
29 New machinery and equipment.....do....	50,774	411	181	(D)	(D)
30 Used plant and equipment.....do....	1,840	57	57	...	...
31 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....1,000..	3,086	32	15	3	14
32 Per production worker.....	82	67	84	42	61
33 Prime movers.....1,000..	3,069	32	15	3	14
34 Electric motors driven by purchased energy.....do....	17	...	...	...	...
35 Horsepower rating of electric motors driven by energy generated at the establishment.....do....	5	...	...	...	...
36 Energy used ¹⁰.....million kwh equivalent..	¹⁰ 5,290	59	22	8	29
37 Coal.....1,000 short tons..	(¹¹)	...	...	...	...
38 Fuel oil.....1,000 barrels..	207	3	...	...	3
39 Natural gas.....million cu. ft..	3,024	28	14	...	14
40 Other fuels.....\$1,000..	15,742	184	67	31	86
41 Electric energy purchased.....million kwh..	68	...	...	...	...
42 Electric energy generated and used.....do....	5	...	...	...	...
43 Water intake.....million gallons..	421	...	...	...	...
44 Per production worker.....do....	0.01	...	...	...	...

See footnotes at end of table.

GEOGRAPHIC DIVISIONS AND STATES, AND BY PRINCIPAL KIND OF WORK PERFORMED: 1954—Continued

West South Central—Continued								
Louisiana								
Total	Principal kind of work performed							
	Geophysical exploration	Well surveying, well logging, and cementing wells	Running, cutting, and pulling casing, tubes, and rods	Cleaning out, bailing out, and swabbing wells	Installing production equipment, such as wellhead fittings, pumps, and engines	Building board roads in oil and gas fields	Other work	
156	18	15	33	14	9	3	64	1
156	18	15	33	14	9	3	64	2
60,353	14,076	2,753	3,712	640	1,259	822	37,091	3
83	xxx	xxx	xxx	xxx	xxx	xxx	xxx	4
156	xxx	xxx	xxx	xxx	xxx	xxx	xxx	5
40,849	8,893	2,430	2,645	562	951	618	24,750	6
6,058	1,468	276	560	121	284	107	3,242	7
5,555	1,357	244	491	104	264	97	2,998	8
353	97	19	36	...	12	8	181	9
150	14	13	33	17	8	2	63	10
60	9	8	6	8	3	...	26	11
12,505	2,688	572	838	186	496	174	7,551	12
660	145	364	63	54	...	31	3	13
2,912	2,543	...	2	...	...	...	367	14
19	...	...	...	...	...	...	19	15
8,914	...	208	773	132	496	143	7,162	16
42,117	11,160	1,268	2,762	349	972	508	25,098	17
19,336	5,231	817	1,543	260	595	270	10,620	18
1,938	724	118	110	...	72	32	882	19
14,632	3,578	193	863	960	222	165	9,580	20
1,459	626	28	19	...	...	...	779	21
1,767	284	81	163	29	51	41	1,118	22
24	4	...	8	...	1	...	11	23
2,961	713	31	56	(9)	31	(9)	2,108	24
4,308	371	83	451	94	89	95	3,125	25
5,647	393	93	493	105	86	97	4,380	26
...	...	...	...	...	...	...	...	27
230	...	9	20	...	3	...	198	28
5,167	393	76	443	83	83	97	4,057	29
250	...	8	30	22	...	...	125	30
565	432	10	20	4	6	3	90	31
102	318	41	41	38	23	31	30	32
563	431	10	20	4	6	3	89	33
2	1	...	...	...	...	...	1	34
1	...	...	...	...	...	...	1	35
10532	75	20	42	17	9	11	10358	36
...	...	...	...	...	...	...	...	37
136	13	...	...	1	...	1	121	38
36	...	...	...	29	...	...	7	39
1,131	211	81	163	24	50	35	567	40
3	(11)	...	1	...	(11)	...	2	41
...	...	...	...	...	...	...	...	42
32	3	...	20	...	4	...	5	43
0.01	(11)	...	0.04	...	0.02	...	(11)	44

Table 3D.—DETAILED STATISTICS FOR THE OIL AND GAS FIELD CONTRACT SERVICES, N.E.C., INDUSTRY, BY

Item	West South Central--Continued						
	Oklahoma						
	Total	Principal kind of work performed					
		Geo-physical exploration	Other exploration	Well surveying, well logging, and cementing wells	Excavating slush pits and cellars	Running, cutting, and pulling casing, tubes, and rods	Cleaning out, bailing out, and swabbing wells
1 Number of operating companies.....	344	19	4	17	13	94	83
2 Number of establishments.....	344	19	4	17	13	94	83
3 Amount received or due for services, total ⁷.....\$1,000..	32,386	6,180	165	1,934	1,809	4,117	9,544
4 Receipts for services in the specified State by contractors classified in that State as percent of line 3.....percent..	87	xxx	xxx	xxx	xxx	xxx	xxx
5 Receipts for services in the specified State by contractors classified in all States as percent of line 3 ⁸.....do....	207	xxx	xxx	xxx	xxx	xxx	xxx
6 Value added in mining services.....\$1,000..	25,411	4,315	78	1,631	1,394	3,439	7,871
7 Number of persons engaged, total.....	4,455	854	14	157	154	818	1,178
8 Production and development workers.....	3,767	710	8	131	127	683	991
9 All other employees.....	261	124	...	12	10	7	71
10 Proprietors and firm members.....	427	20	6	14	17	128	116
11 Performing manual labor.....	204	12	6	8	8	62	40
12 Man-hours worked by production and development workers, total.....1,000..	7,673	1,723	23	276	366	1,173	2,229
13 Drilling wells and rig building.....do....	350	...	...	17	...	17	265
14 Exploration work (except drilling).....do....	1,794	1,716	23	43	...	...	12
15 Operating and maintaining wells.....do....	14	...	...	...	...	...	1
16 Other work.....do....	5,515	7	...	216	366	1,156	1,951
17 Principal expenses designated below, total.....\$1,000..	20,970	5,588	121	970	1,004	2,377	5,617
18 Wages of production and development workers.....do....	12,226	2,931	34	538	560	1,682	3,514
19 Salaries of all other employees.....do....	1,407	761	...	85	33	17	362
20 Supplies.....do....	4,349	...	972	238	...	345	1,196
21 Products purchased for resale.....do....	272	941	...	...	279	39	28
22 Fuel purchased.....do....	1,430	176	15	80	132	263	341
23 Electric energy purchased.....do....	7	...	...	...	...	1	2
24 Subcontract work.....do....	1,279	779	(9)	29	(9)	30	174
25 Purchased machinery installed.....do....	3,115	598	...	168	326	462	951
26 Capital expenditures, total.....do....	3,477	629	...	212	322	462	1,019
27 Development and exploration of mineral property.....do....	117	...	...	...	...	...	(D)
28 New construction and major alterations of fixed structures.do....	73	...	...	10	...	45	(D)
29 New machinery and equipment.....do....	3,031	613	...	157	285	373	903
30 Used plant and equipment.....do....	256	16	...	45	37	44	57
31 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....1,000..	210	35	1	14	16	40	51
32 Per production worker.....	56	49	125	107	126	59	51
33 Prime movers.....1,000..	210	35	1	14	16	40	51
34 Electric motors driven by purchased energy.....do....	...	...	...	...	...	...	...
35 Horsepower rating of electric motors driven by energy generated at the establishment.....do....	...	...	...	...	...	...	...
36 Energy used ¹⁰.....million kwh equivalent..	402	44	4	22	37	78	110
37 Coal.....1,000 short tons..	...	...	...	...	...	...	...
38 Fuel oil.....1,000 barrels..	13	...	...	...	9	...	...
39 Natural gas.....million cu. ft..	132	...	...	11	...	40	81
40 Other fuels.....\$1,000..	1,357	176	15	79	86	259	337
41 Electric energy purchased.....million kwh..	(11)	...	...	...	...	(11)	(11)
42 Electric energy generated and used.....do....	...	...	...	...	...	...	...
43 Water intake.....million gallons..	46	8	...	26	...	1	9
44 Per production worker.....do....	0.01	0.01	...	0.20	...	...	0.01

See footnotes at end of table.

GEOGRAPHIC DIVISIONS AND STATES, AND BY PRINCIPAL KIND OF WORK PERFORMED: 1954—Continued

West South Central—Continued												
Oklahoma—Continued			Texas									
Principal kind of work performed—Continued			Total	Principal kind of work performed								
Installing production equipment, such as wellhead fittings, pumps, and engines	Erecting, cleaning, repairing, and dismantling lease tanks	Other work		Geophysical exploration	Other exploration	Well surveying, well logging, and cementing wells	Drilling water wells	Excavating slush pits and cellars	Running, cutting, and pulling casing, tubes, and rods	Shooting wells	Perforating well casing	
21	17	76	978	136	18	45	15	13	187	4	5	1
21	17	76	981	136	18	45	15	13	188	4	5	2
1,819	978	5,840	438,534	61,261	6,859	174,304	350	2,109	16,842	321	43,009	3
xxx	xxx	xxx	44	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	4
xxx	xxx	xxx	47	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	5
1,368	852	4,463	329,881	43,124	4,688	134,445	264	1,758	13,066	160	33,028	6
333	146	801	35,149	6,222	538	9,288	75	221	2,463	32	2,961	7
310	130	677	27,625	5,215	231	6,683	55	198	2,148	25	2,158	8
4	2	31	6,394	864	287	2,552	2	4	80	4	803	9
19	14	93	1,130	143	20	53	18	19	235	3	...	10
12	8	48	530	58	9	35	10	8	88	2	...	11
459	190	1,234	68,271	13,254	616	21,426	64	403	4,112	49	5,724	12
1	...	50	2,222	235	69	...	42	...	177	...	1,024	13
...	...	...	13,110	12,525	301	177	...	...	5	...	...	14
...	...	13	29	1	2	...	...	...	...	...	...	15
458	190	1,171	52,910	493	244	21,249	22	403	3,930	49	4,700	16
1,258	495	3,540	263,287	44,209	4,392	95,339	209	996	10,966	327	26,534	17
761	260	1,946	107,376	20,740	1,003	29,447	110	601	6,743	123	10,920	18
12	5	132	41,099	5,223	1,322	18,707	2	20	626	43	5,322	19
267	85	1,097	63,905	11,076	...	18,325	57	180	2,300	148	7,349	20
27	85	50	27,085	1,067	1,875	21,983	...	...	191	...	1,320	21
98	73	252	13,699	1,991	139	5,133	34	102	818	11	568	22
2	...	2	705	21	...	367	...	...	51	2	72	23
91	72	61	9,418	4,091	53	1,377	6	93	237	...	983	24
52	167	391	39,581	3,271	563	13,413	(D)	278	1,861	(D)	2,799	25
86	271	476	45,740	3,380	459	20,739	(D)	302	1,682	(D)	3,110	26
...	(D)	3	71	...	...	...	...	...	...	...	...	27
10	(D)	...	2,227	6	...	806	...	1	26	...	522	28
68	175	457	42,165	3,283	390	19,912	(D)	298	1,393	(D)	2,588	29
8	33	16	1,277	91	69	21	...	3	263	(D)	...	30
12	9	32	2,279	333	22	891	5	17	129	5	47	31
39	69	47	82	64	95	133	91	86	60	200	22	32
12	9	32	2,264	333	22	886	5	17	129	5	44	33
...	...	...	15	...	...	5	...	...	...	...	3	34
...	...	...	4	...	...	3	...	...	...	...	...	35
24	18	65	4,297	510	35	1,499	12	25	238	3	172	36
...	...	...	(11)	...	...	...	...	...	(11)	...	...	37
2	...	2	55	4	...	2	...	2	6	...	...	38
...	...	...	2,828	36	...	684	12	...	105	...	89	39
86	71	248	13,070	1,962	139	4,998	34	92	759	11	558	40
(11)	...	(11)	65	1	...	37	...	...	6	...	5	41
...	...	...	5	...	...	4	...	...	...	...	...	42
...	...	2	343	55	13	1	...	6	1	...	17	43
...	...	(11)	0.01	0.01	0.06	(11)	...	0.03	(11)	...	0.01	44

Table 3D.—DETAILED STATISTICS FOR THE OIL AND GAS FIELD CONTRACT SERVICES, N.E.C., INDUSTRY, BY

Item	West South Central—Continued					
	Texas—Continued					
	Principal kind of work performed—Continued					
	Acidizing and other chemical treatment of wells	Cleaning out, bailing out, and swabbing wells	Installing production equipment, such as wellhead fittings, pumps, and engines	Erecting, cleaning, repairing, and dismantling lease tanks	Building board roads in oil and gas fields	Other work
1 Number of operating companies.....	12	208	55	22	7	253
2 Number of establishments.....	12	208	55	22	7	253
3 Amount received or due for services, total ⁷.....\$1,000..	53,314	23,750	6,546	2,450	1,706	45,713
4 Receipts for services in the specified State by contractors classified in that State as percent of line 3.....percent..	xxx	xxx	xxx	xxx	xxx	xxx
5 Receipts for services in the specified State by contractors classified in all States as percent of line 3 ⁸.....do....	xxx	xxx	xxx	xxx	xxx	xxx
6 Value added in mining services.....\$1,000..	34,987	18,325	5,274	1,865	1,216	37,681
7 Number of persons engaged, total.....	2,616	3,099	1,028	422	230	5,954
8 Production and development workers.....	1,583	2,675	876	392	199	5,187
9 All other employees.....	1,028	160	93	7	21	489
10 Proprietors and firm members.....	5	264	59	23	10	278
11 Performing manual labor.....	4	117	31	14	7	147
12 Man-hours worked by production and development workers, total.....1,000..	3,971	5,224	1,737	621	360	10,710
13 Drilling wells and rig building.....do....	...	491	2	...	9	173
14 Exploration work (except drilling).....do....	...	6	...	...	...	96
15 Operating and maintaining wells.....do....	10	...	...	...	...	16
16 Other work.....do....	3,961	4,727	1,735	621	351	10,425
17 Principal expenses designated below, total.....\$1,000..	30,179	15,385	4,255	1,652	1,122	27,722
18 Wages of production and development workers.....do....	7,570	9,080	2,632	1,062	552	16,793
19 Salaries of all other employees.....do....	5,932	869	430	25	150	2,428
20 Supplies.....do....	15,387	3,503	856	418	932	4,598
21 Products purchased for resale.....do....	97	1	20	...	386	...
22 Fuel purchased.....do....	1,267	1,195	240	116	97	1,988
23 Electric energy purchased.....do....	23	12	5	...	1	151
24 Subcontract work.....do....	(⁹)	629	91	11	(⁹)	1,378
25 Purchased machinery installed.....do....	11,712	2,497	513	77	129	2,427
26 Capital expenditures, total.....do....	10,062	2,508	434	57	59	2,896
27 Development and exploration of mineral property.....do....	...	...	...	...	...	...
28 New construction and major alterations of fixed structures.....do....	315	15	31	1	1	574
29 New machinery and equipment.....do....	9,746	2,005	374	56	58	2,045
30 Used plant and equipment.....do....	1	488	29	...	...	277
31 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....1,000..	324	177	40	16	14	259
32 Per production worker.....do....	205	66	46	41	70	50
33 Prime movers.....1,000..	324	176	40	16	14	253
34 Electric motors driven by purchased energy.....do....	...	1	...	...	...	6
35 Horsepower rating of electric motors driven by energy generated at the establishment.....do....	...	1	...	...	...	...
36 Energy used ¹⁰.....million kwh equivalent..	364	321	60	29	27	1,002
37 Coal.....1,000 short tons..	...	...	...	...	...	...
38 Fuel oil.....1,000 barrels..	(¹¹)	9	(¹¹)	...	4	28
39 Natural gas.....million cu. ft..	157	61	...	...	...	1,684
40 Other fuels.....\$1,000..	1,258	1,144	238	116	78	1,683
41 Electric energy purchased.....million kwh..	1	1	(¹¹)	...	(¹¹)	14
42 Electric energy generated and used.....do....	...	1	...	...	...	...
43 Water intake.....million gallons..	17	108	...	...	...	125
44 Per production worker.....do....	0.01	0.04	...	...	...	0.02

See footnotes at end of table.

GEOGRAPHIC DIVISIONS AND STATES, AND BY PRINCIPAL KIND OF WORK PERFORMED: 1954—Continued

Mountain											
Total	Wyoming							New Mexico			
	Total	Principal kind of work performed						Total	Principal kind of work performed		
		Geophysical exploration	Excavating slush pits and cellars	Running, cutting, and pulling casing, tubes, and rods	Cleaning out, bailing out, and swabbing wells	Installing production equipment, such as wellhead fittings, pumps, and engines	Other work		Geophysical exploration	Well surveying, well logging, and cementing wells	
255	89	24	4	11	16	4	30	75	10	4	1
262	89	24	4	11	16	4	30	77	10	4	2
28,484	9,390	3,638	135	777	1,561	480	2,799	8,525	980	104	3
79	78	xxx	xxx	xxx	xxx	xxx	xxx	80	xxx	xxx	4
231	181	xxx	xxx	xxx	xxx	xxx	xxx	301	xxx	xxx	5
21,781	6,901	2,633	111	632	1,239	377	1,909	6,544	850	67	6
3,324	1,005	353	26	91	160	71	304	1,095	82	13	7
2,830	823	305	7	69	138	62	242	963	69	9	8
188	61	24	12	...	4	5	16	44	...	...	9
306	121	24	7	22	18	4	46	88	13	4	10
149	62	6	3	17	8	2	26	45	5	4	11
6,152	1,812	808	22	163	283	103	433	2,080	173	19	12
172	22	...	...	...	1	14	7	48	4	...	13
1,915	782	731	...	...	...	...	51	222	...	4	14
...	...	...	...	...	...	...	...	...	...	...	15
4,065	1,008	77	22	163	282	89	375	1,810	169	15	16
18,346	6,111	2,386	126	464	971	369	1,795	5,491	457	64	17
10,419	3,300	1,245	43	319	640	225	828	3,153	297	25	18
961	292	128	57	...	20	36	51	206	...	...	19
4,545	1,589	981	15	101	...	...	651	1,589	107	32	20
251	150	...	...	...	218	985	95	55	...	...	21
1,387	509	202	11	44	91	23	138	392	53	6	22
7	1	...	...	...	...	...	1	3	...	...	23
776	270	(9)	...	...	2	(9)	31	93	...	1	24
2,635	885	352	...	151	175	14	193	705	44	21	25
2,898	915	360	2	151	164	19	219	856	74	23	26
...	...	...	...	...	...	...	...	...	...	...	27
74	5	...	...	...	5	...	...	38	...	...	28
2,400	724	...	...	...	67	16	195	702	56	23	29
424	186	360	2	151	92	3	24	116	18	...	30
219	75	3	1	4	13	4	50	89	12	1	31
77	91	10	143	58	94	65	207	92	174	111	32
219	75	3	1	4	13	4	50	89	12	1	33
...	...	...	...	...	...	...	...	...	...	...	34
2	...	...	...	...	...	...	...	2	...	...	35
367	140	51	4	14	24	6	41	102	13	1	36
...	...	...	...	...	...	...	...	...	...	...	37
18	7	...	1	(11)	(11)	...	6	5	(11)	...	38
48	37	...	...	13	8	...	16	...	...	...	39
1,286	468	202	8	42	88	23	105	373	52	6	40
(11)	(11)	...	...	...	...	...	(11)	(11)	...	...	41
...	...	...	...	...	...	...	...	...	...	...	42
17	8	7	...	...	1	...	...	1	...	...	43
0.01	0.01	0.02	...	...	0.01	...	...	(11)	...	...	44

Table 3D.—DETAILED STATISTICS FOR THE OIL AND GAS FIELD CONTRACT SERVICES, N.E.C., INDUSTRY, BY

Item	Mountain—Continued					
	New Mexico—Continued					
	Principal kind of work performed—Continued					
	Running, cutting, and pulling casing, tubes, and rods	Shooting wells	Cleaning out, bailing out, and swabbing wells	Installing production equipment, such as wellhead fittings, pumps, and engines	Erecting, cleaning, repairing, and dismantling lease tanks	Other work
1 Number of operating companies.....	11	5	16	4	3	24
2 Number of establishments.....	11	5	16	4	3	24
3 Amount received or due for services, total ⁷.....\$1,000..	2,003	591	1,785	231	667	2,164
4 Receipts for services in the specified State by contractors classified in that State as percent of line 3.....percent..	xxx	xxx	xxx	xxx	xxx	xxx
5 Receipts for services in the specified State by contractors classified in all States as percent of line 3 ⁸.....do....	xxx	xxx	xxx	xxx	xxx	xxx
6 Value added in mining services.....\$1,000..	1,713	490	1,353	182	559	1,330
7 Number of persons engaged, total.....	282	31	245	40	94	308
8 Production and development workers.....	259	23	217	34	89	263
9 All other employees.....	14	...	9	1	1	19
10 Proprietors and firm members.....	9	8	19	5	4	26
11 Performing manual labor.....	3	7	3	...	3	20
12 Man-hours worked by production and development workers, total.....1,000..	482	38	485	68	211	604
13 Drilling wells and rig building.....do....	3	...	33	...	...	8
14 Exploration work (except drilling).....do....	...	...	...	...	...	218
15 Operating and maintaining wells.....do....	...	...	...	...	...	...
16 Other work.....do....	479	38	452	68	211	378
17 Principal expenses designated below, total.....\$1,000..	1,240	219	1,143	160	395	1,813
18 Wages of production and development workers.....do....	812	119	696	113	271	820
19 Salaries of all other employees.....do....	67	...	33	2	3	101
20 Supplies.....do....	252	93	9314	930	57	756
21 Products purchased for resale.....do....	...	...	...	...	...	12
22 Fuel purchased.....do....	94	6	99	15	47	72
23 Electric energy purchased.....do....	...	1	1	...	1	...
24 Subcontract work.....do....	15	...	(9)	(9)	16	52
25 Purchased machinery installed.....do....	205	3	231	10	5	186
26 Capital expenditures, total.....do....	276	2	213	6	18	244
27 Development and exploration of mineral property.....do....	...	...	...	...	...	...
28 New construction and major alterations of fixed structures.....do....	...	...	21	...	...	...
29 New machinery and equipment.....do....	246	2	165	6	18	220
30 Used plant and equipment.....do....	30	...	27	...	...	24
31 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....1,000..	13	3	40	2	2	16
32 Per production worker.....	50	130	184	59	22	61
33 Prime movers.....1,000..	13	3	40	2	2	16
34 Electric motors driven by purchased energy.....do....	...	...	...	...	...	...
35 Horsepower rating of electric motors driven by energy generated at the establishment.....do....	...	...	...	...	...	2
36 Energy used ¹⁰.....million kwh equivalent..	24	1	26	4	12	21
37 Coal.....1,000 short tons..	...	...	...	...	...	...
38 Fuel oil.....1,000 barrels..	1	(11)	1	...	...	3
39 Natural gas.....million cu. ft..	...	...	...	...	...	...
40 Other fuels.....\$1,000..	87	4	95	15	47	67
41 Electric energy purchased.....million kwh..	...	(11)	(11)	...	(11)	...
42 Electric energy generated and used.....do....	...	...	...	...	...	...
43 Water intake.....million gallons..	...	...	1	...	...	...
44 Per production worker.....do....	...	...	(11)	...	...	...

See footnotes at end of table.

GEOGRAPHIC DIVISIONS AND STATES, AND BY PRINCIPAL KIND OF WORK PERFORMED: 1954—Continued

Mountain—Continued									Pacific		
Montana and Colorado ⁴									Arizona, Utah, and Nevada ⁵	Total ⁶	California, total
Total	Principal kind of work performed										
	Geophysical exploration	Other exploration	Excavating slush pits and cellars	Running, cutting, and pulling casing, tubes, and rods	Cleaning out, bailing out, and swabbing wells	Installing production equipment, such as wellhead fittings, pumps, and engines	Other work				
89	30	5	3	9	13	7	22	4	157	154	1
90	31	5	3	9	13	7	22	6	157	154	2
9,995	2,963	494	281	441	2,202	2,305	1,309	574	33,344	33,291	3
56	xxx	xxx	xxx	xxx	xxx	xxx	xxx	91	92	92	4
200	xxx	xxx	xxx	xxx	xxx	xxx	xxx	502	123	122	5
7,825	2,040	416	258	361	1,599	2,027	1,124	511	24,785	24,740	6
1,148	325	58	24	66	245	289	141	76	3,066	3,059	7
973	278	47	20	52	211	255	110	71	2,555	2,551	8
82	18	6	1	2	22	28	5	1	371	371	9
93	29	5	3	12	12	6	26	4	140	137	10
40	16	3	...	4	7	2	8	2	81	78	11
2,095	667	96	51	106	399	528	248	165	5,377	5,368	12
102	35	...	...	...	58	2	7	...	225	225	13
746	583	72	...	...	10	...	81	165	184	175	14
...	...	...	...	...	...	...	...	...	119	119	15
1,247	49	24	51	106	331	526	160	...	4,849	4,849	16
6,405	2,031	302	126	266	1,594	1,405	681	339	22,713	22,690	17
3,693	983	182	89	185	876	937	441	273	12,006	11,991	18
460	111	38	3	4	105	188	11	3	2,265	2,265	19
1,337	610	970	915	957	417	37	156	30	6,189	6,181	20
46	...	...	...	...	...	28	4	...	367	367	21
453	167	11	19	20	76	95	65	33	1,077	1,077	22
3	1	1	...	...	...	...	1	...	37	37	23
413	159	(9)	(9)	(9)	120	120	3	...	772	772	24
982	251	(D)	(D)	95	332	141	106	63	2,519	2,519	25
1,064	265	(D)	(D)	92	342	143	150	63	2,402	2,402	26
...	...	...	...	...	...	...	...	...	112	...	27
31	2	(D)	...	...	...	3	15	...	117	229	28
911	263	(D)	(D)	92	342	80	104	63	1,782	1,782	29
122	...	...	...	...	...	60	31	...	391	391	30
54	17	1	2	4	9	13	8	1	182	182	31
55	61	21	100	77	43	51	73	14	71	71	32
54	17	1	2	4	9	13	8	1	179	179	33
...	...	...	...	...	...	...	...	...	3	3	34
...	...	...	...	...	...	...	...	...	...	...	35
117	41	3	4	6	18	24	21	8	10,299	10,299	36
...	(11)	...	(11)	...	...	(11)	...	...	...	...	37
6	(11)	...	(11)	1	2	(11)	3	...	17	17	38
11	...	...	...	...	...	...	11	...	39	39	39
412	166	11	16	17	60	94	48	33	974	974	40
(11)	(11)	(11)	...	...	...	...	(11)	...	2	2	41
...	...	...	...	...	...	...	...	...	...	...	42
8	2	...	...	...	...	...	6	...	4	4	43
0.01	0.01	...	...	...	...	...	0.05	...	(11)	(11)	44

Table 3D.—DETAILED STATISTICS FOR THE OIL AND GAS FIELD CONTRACT SERVICES, N.E.C., INDUSTRY, BY GEOGRAPHIC DIVISIONS AND STATES, AND BY PRINCIPAL KIND OF WORK PERFORMED: 1954—Continued

Item	Pacific—Continued							
	California—Continued							
	Principal kind of work performed							
	Geo-physical exploration	Well surveying, well logging, and cementing wells	Exca-vating slush pits and cellars	Running, cutting, and pulling casing, tubes, and rods	Cleaning out, bailing out, and swabbing wells	In-stalling produc-tion equip-ment such as wellhead fittings, pumps, and engines	Erecting, cleaning, re-pairing, and dis-mantling lease tanks	Other work
Number of operating companies.....	6	18	5	17	27	3	7	71
Number of establishments.....	6	18	5	17	27	3	7	71
Amount received or due for services, total ⁷.....\$1,000..	1,006	8,555	413	3,094	5,878	351	1,568	12,426
Receipts for services in the specified State by contractors classified in that State as percent of line 3.....percent..	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Receipts for services in the specified State by contractors classified in all States as percent of line 3 ⁸.....do....	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Value added in mining services.....\$1,000..	553	4,643	283	2,625	5,045	275	1,432	9,884
Number of persons engaged, total.....	67	563	35	332	648	33	147	1,234
Production and development workers.....	63	413	28	283	580	29	124	1,031
All other employees.....	...	133	2	31	43	...	17	145
Proprietors and firm members.....	4	17	5	18	25	4	6	58
Performing manual labor.....	2	15	5	11	9	4	2	30
Man-hours worked by production and development workers, total.....1,000..	146	1,085	52	568	1,028	62	268	2,159
Drilling wells and rig building.....do....	17	...	...	...	124	...	...	84
Exploration work (except drilling).....do....	129	22	...	...	...	...	...	24
Operating and maintaining wells.....do....	...	...	...	...	...	...	...	117
Other work.....do....	...	1,063	52	566	904	62	268	1,934
Principal expenses designated below, total.....\$1,000..	821	6,681	190	2,194	3,276	238	853	8,437
Wages of production and development workers.....do....	351	1,999	112	1,437	2,315	163	607	5,007
Salaries of all other employees.....do....	...	750	6	266	220	...	105	918
Supplies.....do....	9431	3,576	27	9363	453	966	76	1,395
Products purchased for resale.....do....	...	52	9	1	44	...	...	223
Fuel purchased.....do....	39	288	31	122	240	9	45	303
Electric energy purchased.....do....	...	16	...	5	...	...	...	16
Subcontract work.....do....	(⁹)	...	5	(⁹)	4	(⁹)	20	575
Purchased machinery installed.....do....	45	657	99	245	591	6	37	839
Capital expenditures, total.....do....	62	677	41	267	499	(D)	(D)	809
Development and exploration of mineral property.....do....	...	...	...	...	...	...	...	...
New construction and major alterations of fixed structures.....do....	...	(D)	...	10	...	...	(D)	124
New machinery and equipment.....do....	61	586	41	159	442	(D)	33	469
Used plant and equipment.....do....	1	(D)	...	98	57	...	(D)	216
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....1,000..	4	56	8	26	28	1	7	52
Per production worker.....do....	63	136	286	92	48	34	56	50
Prime movers.....do....1,000..	4	56	6	26	28	1	7	51
Electric motors driven by purchased energy.....do....	...	...	2	...	...	...	...	1
Horsepower rating of electric motors driven by energy generated at the establishment.....do....	...	...	...	...	...	...	...	...
Energy used ¹⁰.....million kwh equivalent..	10	75	7	33	61	2	11	¹⁰ 100
Coal.....do....1,000 short tons..	...	...	...	...	...	...	...	...
Fuel oil.....do....1,000 barrels..	(¹¹)	...	2	5	3	...	...	7
Natural gas.....do....million cu. ft..	...	7	...	...	...	...	...	32
Other fuels.....do....\$1,000..	38	285	16	93	225	9	45	263
Electric energy purchased.....do....million kwh..	...	1	...	(¹¹)	...	...	...	1
Electric energy generated and used.....do....	...	...	...	...	...	...	...	...
Water intake.....do....million gallons..	...	1	...	...	...	...	...	3
Per production worker.....do....	...	(¹¹)	...	...	...	...	...	(¹¹)

D Withheld to avoid approximately disclosing figures for individual companies. xxx Not applicable. ¹Represents 2 establishments in Missouri and 11 in Nebraska. ²Represents 1 establishment in Virginia and 2 in Florida. ³Represents 28 establishments in Kentucky and 4 in Alabama. ⁴Represents 46 establishments in Montana and 44 in Colorado. ⁵Represents 1 establishment in Arizona, 3 in Utah, and 2 in Nevada. ⁶In addition to California, includes 1 establishment in Washington and 2 in Oregon. ⁷See table 3C, footnote 2. ⁸For explanation of computation, see table 3A, footnote 6. In Industry 1339, Oil and Gas Field Contract Services, N.E.C., in addition to the States shown, contractors reported receipts for services in Iowa, Idaho, Washington, Oregon, and Alaska. Of the total receipts, \$752,000 was for services performed in these States and Alaska. ⁹See table 3C, footnote 5. ¹⁰See table 3C, footnote 6. ¹¹See table 1, footnote 6.

Table 4.—SELECTED STATISTICS FOR THE DRILLING OIL AND GAS WELLS INDUSTRY IN THE UNITED STATES, BY PRINCIPAL SECONDARY SERVICE PERFORMED: 1954
(Contractors were requested to prepare one report for all oil and gas field contract services performed in the United States. These reports were classified on the basis of the principal primary and the principal secondary services performed. For explanation of line captions, see INTRODUCTION)

Item	All types of establishments	Type of establishment						
		Drilling wells only	Drilling in, spudding in, tailing in, and reworking wells with or without complete well drilling	Drilling establishments with secondary services, by principal secondary service				
				Geo-physical and other exploration	Well surveying, well logging, and cementing wells	Drilling water wells	Building, repairing, and dismantling rigs and derricks	Excavating slush pits and cellars
Number of operating companies.....	2,846	1,936	440	6	10	44	9	10
Number of establishments.....	2,869	1,953	441	6	10	44	9	10
Amount received or due for services, total ¹.....\$1,000..	972,745	696,905	146,634	751	3,331	6,136	3,099	1,561
Drilling oil, gas, dry, and service wells.....do....	845,973	646,426	91,486	634	2,602	5,643	2,452	1,521
Drilling in, spudding in, tailing in, and reworking wells.....do....	46,984	...	46,081	(D)	...	46	...	...
Geophysical and other exploration.....do....	158	...	...	102	...	...	...	...
Well surveying, well logging, and cementing wells.....do....	430	...	147	1	220	...	...	...
Drilling water wells.....do....	496	...	51	...	...	358	...	...
Building, repairing, and dismantling rigs and derricks.....do....	148	...	16	...	1	1	73	...
Excavating slush pits and cellars.....do....	405	...	232	1	...	...	(D)	35
Running, cutting, and pulling casing, tubes, and rods.....do....	2,847	...	901	...	1	2	14	...
Perforating well casing and acidizing and other chemical treatment of wells.....do....	167	...	12	...	4	1	...	...
Cleaning out, bailing out, and swabbing wells.....do....	4,205	...	413	...	...	36	10	...
Installing production equipment, such as wellhead fittings, pumps, and engines.....do....	651	...	146	...	...	...	3	...
Other services classified in the oil and gas field contract services industries ².....do....	4,049	...	2,647	...	2	...	...	1
Hauling oil and gas field supplies and equipment.....do....	2,459	...	303	...	1	2	(D)	4
Other services classified in other industries.....do....	452	...	215	...	(D)	...	...	...
Crude petroleum shipped.....do....	354,177	345,947	2,168	...	...	...	...	...
Natural gas shipped.....do....	4,528	3,624	66	...	...	...	520	...
Products purchased and resold without further processing.....do....	4,616	908	1,750	(D)	(D)	47	...	...
Value added in mining services.....do....	623,967	447,079	97,273	449	1,938	3,663	2,359	1,186
Number of persons engaged, total.....	71,375	48,671	11,619	74	348	576	166	128
Production and development workers.....	62,145	42,589	10,029	59	223	482	134	107
All other employees.....	5,831	3,788	1,080	11	111	41	22	8
Proprietors and firm members.....	3,399	2,294	510	4	14	53	10	13
Performing manual labor.....	1,684	1,144	200	2	6	29	7	5
Man-hours worked by production and development workers.....1,000..	133,216	91,180	21,796	119	482	989	354	224
Wages and salaries, total.....\$1,000..	304,312	210,515	49,876	319	1,722	1,934	677	425
Wages of production and development workers.....do....	264,797	183,884	42,345	234	1,085	1,700	597	404
Salaries of all other employees.....do....	39,515	26,631	7,531	85	637	234	80	21
New capital expenditures.....do....	125,077	101,958	12,545	107	218	371	907	139

See footnotes at end of table.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 4.—SELECTED STATISTICS FOR THE DRILLING OIL AND GAS WELLS INDUSTRY IN THE UNITED STATES,
BY PRINCIPAL SECONDARY SERVICE PERFORMED: 1954—Continued

Item	Type of establishment—Continued						
	Drilling establishments with secondary services, by principal secondary service—Continued						
	Running, cutting, and pulling casing, tubes, and rods	Perforating well casing and acidizing and other chemical treatment of wells	Cleaning out, bailing out, and swabbing wells	Installing production equipment, such as wellhead fittings, pumps, and engines	Other services classified in the oil and gas field contract services industries	Hauling oil and gas field supplies and equipment	Other services classified in other industries
Number of operating companies.....	50	6	172	17	69	71	11
Number of establishments.....	50	6	172	17	69	71	11
Amount received or due for services, total ¹.....\$1,000..	9,502	273	35,549	5,864	24,133	37,149	1,858
Drilling oil, gas, dry, and service wells.....do....	6,863	199	29,350	4,083	21,368	31,660	1,686
Drilling in, spudding in, tailing in, and re-working wells.....do....	155	...	76	...	(D)	633	...
Geophysical and other exploration.....do....	...	...	...	...	28	...	...
Well surveying, well logging, and cementing wells.....do....	...	...	13	(D)	10	(D)	1
Drilling water wells.....do....	36	...	7	...	31	(D)	...
Building, repairing, and dismantling rigs and derricks.....do....	...	...	24	1	2	14	(D)
Excavating slush pits and cellars.....do....	9	...	26	14	(D)	59	(D)
Running, cutting, and pulling casing, tubes, and rods.....do....	1,641	(D)	140	80	9	47	(D)
Perforating well casing and acidizing and other chemical treatment of wells.....do....	3	27	10	84	7	(D)	(D)
Cleaning out, bailing out, and swabbing wells.....do....	150	...	3,471	34	23	63	(D)
Installing production equipment, such as wellhead fittings, pumps, and engines.....do....	88	...	23	289	8	74	20
Other services classified in the oil and gas field contract services industries ².....do....	67	...	61	47	753	471	...
Hauling oil and gas field supplies and equipment.....do....	253	...	111	39	40	1,659	(D)
Other services classified in other industries.....do....	(D)	...	25	(D)	130	...	68
Crude petroleum shipped.....do....	133	(D)	1,991	666	1,572	1,623	...
Natural gas shipped.....do....	1	...	65	...	101	74	...
Products purchased and resold without further processing.....do....	(D)	(D)	156	498	38	734	...
Value added in mining services.....do....	6,442	178	23,268	2,210	14,344	22,185	1,393
Number of persons engaged, total.....	1,028	40	3,425	474	1,900	2,769	157
Production and development workers.....	906	30	3,002	416	1,614	2,421	133
All other employees.....	53	2	221	28	197	261	8
Proprietors and firm members.....	69	8	202	30	89	87	16
Performing manual labor.....	27	4	108	19	80	45	8
Man-hours worked by production and development workers.....1,000..	1,792	55	5,532	1,097	3,652	5,592	352
Wages and salaries, total.....\$1,000..	3,978	88	12,066	2,194	7,953	11,951	614
Wages of production and development workers.....do....	3,625	81	10,784	2,075	6,878	10,521	584
Salaries of all other employees.....do....	353	7	1,282	119	1,075	1,430	30
New capital expenditures.....do....	418	19	2,719	686	880	3,923	187

D. Withheld to avoid approximately disclosing figures for individual companies.

¹See table 3A, footnote 5.²Represents flooding and water injection, and repressuring; building board roads in oil and gas fields; pumping oil and gas wells but not operating leases; and miscellaneous work.³Includes receipts for field condensate and drips shipped. See table 3A, footnote 9.

Table 5A.--RECEIPTS BY THE OIL AND GAS FIELD CONTRACT SERVICES INDUSTRIES FOR SERVICES AND SECONDARY PRODUCTS, AND TOTAL RECEIPTS FOR SUCH SERVICES AND PRODUCTS IN ALL CRUDE PETROLEUM AND NATURAL GAS EXTRACTION INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954

Services and products	United States			Middle Atlantic		
	All industries, total	Oil and gas field contract services industries	Crude petroleum and natural gas industries	Total		
				All industries, total	Oil and gas field contract services industries	Crude petroleum and natural gas industries
All services and products, total.....\$1,000..	48,701,694	1,631,020	7,070,097	100,315	22,936	77,379
<u>Primary Services</u>						
Services primary to the drilling oil and gas wells industry, total.....do....	921,233	897,895	23,338	9,299	8,734	565
Drilling oil, gas, dry, and service wells.....do....	872,210	849,923	22,287	8,672	8,108	564
Drilling in, spudding in, tailing in, and reworking wells.....do....	49,023	47,972	1,051	627	626	1
Services primary to the building, repairing, and dismantling rigs and derricks industry (building, repairing, and dismantling rigs and derricks).....do....	12,804	12,803	1	167	167	...
Services primary to the oil and gas field contract services, n.e.c., industry, total.....do....	4606,529	595,803	10,149	12,904	12,819	85
Geophysical exploration.....do....	91,883	91,710	173	10,501	10,501	...
Other exploration.....do....	18,921	18,680	241			...
Well surveying and well logging.....do....	68,718	68,718	...			...
Drilling water wells.....do....	1,653	1,621	32			(D)
Excavating slush pits and cellars.....do....	7,935	7,932	3	66	(D)	1
Running, cutting, and pulling casing, tubes, and rods ².....do....	40,198	39,872	326	366	(D)	(D)
Cementing wells.....do....	62,769	62,769	...	13	13	...
Shooting wells.....do....	3,413	3,413	...	838	838	...
Perforating well casing.....do....	38,888	38,888	...	15	15	...
Acidizing and other chemical treatment of wells.....do....	53,382	53,380	2	45	45	...
Cleaning out, bailing out, and swabbing wells.....do....	55,251	54,883	368	722	(D)	(D)
Installing production equipment, such as wellhead fittings, pumps, and engines.....do....	14,019	13,918	101	25	25	...
Erecting, cleaning, repairing, and dismantling lease tanks.....do....	7,986	7,958	28	...	...	...
Other services ⁶.....do....	4141,513	132,061	8,875	235	175	60
<u>Secondary Services and Products</u>						
Contract services classified in other industries, total.....do....	11,225	10,000	1,225	453	298	155
Hauling oil and gas field supplies and equipment.....do....	7,225	6,800	425	68	68	...
Oil and gas field machine-shop work.....do....	942	903	39	35	31	4
Other services ⁷.....do....	3,058	2,297	761	350	199	151
Crude petroleum shipped:						
Quantity.....1,000 barrels..	2,194,210	20,476	2,173,734	11,351	90	11,261
Value.....\$1,000..	6,074,969	55,885	6,019,084	38,984	318	38,666
Field condensate and drips shipped:						
Quantity.....1,000 barrels..	25,606	6	25,600	6	...	6
Value.....\$1,000..	77,161	21	77,140	20	...	20
Natural gas:						
Gross production, total.....million cu. ft..	10,121,793	36,857	10,084,936	140,139	2,391	137,748
Gas from oil wells.....do....	3,433,120	17,704	3,415,416	3,270	21	3,249
Gas from gas wells.....do....	6,688,673	19,153	6,669,520	136,869	2,370	134,499
Net deliveries to natural-gasoline plants:						
Quantity.....do....	3,175,043	1,483	3,173,560	2,894	...	2,894
Value ⁸.....\$1,000..	411,313	112	411,201	803	...	803
Delivered to distributors and transmission companies:						
Quantity.....million cu. ft..	4,345,012	33,303	4,311,709	98,079	2,381	95,698
Value.....\$1,000..	458,424	4,447	453,977	26,674	598	26,076
Delivered to consumers:						
Quantity.....million cu. ft..	493,773	863	492,910	30,668	3	30,665
Value.....\$1,000..	73,757	51	73,706	10,987	1	10,986
Electric energy generated and sold:						
Quantity.....million kwh..	22	...	22	...	...	...
Value.....\$1,000..	205	...	205	...	...	...
Products purchased and resold without further processing.....do....	54,038	54,003	35	1	1	...
Other products ⁹.....do....	36	...	36	23	...	23

See footnotes at end of table.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 5A.—RECEIPTS BY THE OIL AND GAS FIELD CONTRACT SERVICES INDUSTRIES FOR SERVICES AND SECONDARY PRODUCTS, AND TOTAL RECEIPTS FOR SUCH SERVICES

Services and products		Middle Atlantic--Continued					
		New York			Pennsylvania		
		All industries, total	Oil and gas field contract services industries	Crude petroleum and natural gas industries	All industries, total	Oil and gas field contract services industries	Crude petroleum and natural gas industries
1	All services and products, total.....\$1,000..	11,458	1,229	10,229	88,857	21,707	67,150
	<u>Primary Services</u>						
2	Services primary to the drilling oil and gas wells industry, total.....do....	911	901	10	8,388	7,833	555
3	Drilling oil, gas, dry, and service wells.....do....	713	703	10	7,959	7,405	554
4	Drilling in, spudding in, tailing in, and reworking wells..do....	198	198	...	429	428	1
5	Services primary to the building, repairing, and dismantling rigs and derricks industry (building, repairing, and dismantling rigs and derricks).....do....	...	...	...	167	167	...
6	Services primary to the oil and gas field contract services, n.e.c., industry, total.....do....	276	263	13	12,628	12,556	72
7	Geophysical exploration.....do....	...	...	...	10,501	10,501	{
8	Other exploration.....do....	...	...	...
9	Well surveying and well logging.....do....	...	...	...
10	Drilling water wells.....do....	(D)	(D)	(D)	(D)	(D)	...
11	Excavating slush pits and cellars.....do....	...	...	...	78	77	1
12	Running, cutting, and pulling casing, tubes, and rods ².....do....	102	102	...	264	(D)	(D)
13	Cementing wells.....do....	...	...	...	13	13	...
14	Shooting wells.....do....	(D)	(D)	...	(D)	(D)	...
15	Perforating well casing.....do....	...	...	...	15	15	...
16	Acidizing and other chemical treatment of wells.....do....	...	...	...	45	45	...
17	Cleaning out, bailing out, and swabbing wells.....do....	(D)	(D)	...	(D)	(D)	(D)
18	Installing production equipment, such as wellhead fittings, pumps, and engines.....do....	...	...	...	25	25	...
19	Erecting, cleaning, repairing, and dismantling lease tanks.....do....	...	...	...	...	...	...
20	Other services ⁶.....do....	41	(D)	(D)	194	(D)	(D)
	<u>Secondary Services and Products</u>						
21	Contract services classified in other industries, total.....do....	...	...	...	453	298	155
22	Hauling oil and gas field supplies and equipment.....do....	...	...	...	68	68	...
23	Oil and gas field machine-shop work.....do....	...	...	...	35	31	4
24	Other services ⁷.....do....	...	...	...	350	199	151
	<u>Crude petroleum shipped:</u>						
25	Quantity.....1,000 barrels..	2,598	17	2,581	8,753	73	8,680
26	Value.....\$1,000..	8,934	65	8,869	30,050	253	29,797
	<u>Field condensate and drips shipped:</u>						
27	Quantity.....1,000 barrels..	...	...	...	6	...	6
28	Value.....\$1,000..	...	...	...	20	...	20
	<u>Natural gas:</u>						
29	Gross production, total.....million cu. ft..	3,890	...	3,890	136,249	2,391	133,858
30	Gas from oil wells.....do....	718	...	718	2,552	21	2,531
31	Gas from gas wells.....do....	3,172	...	3,172	133,697	2,370	131,327
	<u>Net deliveries to natural-gasoline plants:</u>						
32	Quantity.....do....	1	...	1	2,893	...	2,893
33	Value ⁸.....\$1,000..	...	...	...	803	...	803
	<u>Delivered to distributors and transmission companies:</u>						
34	Quantity.....million cu. ft..	879	...	879	97,200	2,381	94,819
35	Value.....\$1,000..	264	...	264	26,410	598	25,812
	<u>Delivered to consumers:</u>						
36	Quantity.....million cu. ft..	1,881	...	1,881	28,787	3	28,784
37	Value.....\$1,000..	1,073	...	1,073	9,914	1	9,913
	<u>Electric energy generated and sold:</u>						
38	Quantity.....million kwh..	...	...	...	...	...	...
39	Value.....\$1,000..	...	...	...	...	...	...
40	Products purchased and resold without further processing.....do....	...	...	...	1	1	...
41	Other products ⁹.....do....	...	...	...	23	...	23

See footnotes at end of table.

East North Central									
Total			Ohio			Indiana			
All industries, total	Oil and gas field contract services industries	Crude petroleum and natural gas industries	All industries, total ¹	Oil and gas field contract services industries ¹	Crude petroleum and natural gas industries	All industries, total	Oil and gas field contract services industries	Crude petroleum and natural gas industries	
320,961	61,875	259,086	22,931	6,266	16,665	30,687	4,499	26,188	1
42,167	39,907	2,260	5,094	4,959	135	2,855	2,681	174	2
39,268	37,143	2,125	5,003	4,868	135	2,804	2,636	168	3
2,899	2,764	135	91	91	...	51	45	6	4
93	93	...	10	10	...	...	...	...	5
12,376	11,721	655	699	586	113	1,368	1,318	50	6
502	502	...	...	...	...	(D)	(D)	...	7
		...	...	...	...	...	...	...	8
		...	...	...	...	...	...	...	9
236	222	14	46	33	13	74	73	1	10
259	258	1	(D)	(D)	...	(D)	(D)	...	11
1,972	1,942	30	253	253	...	168	168	...	12
1,249	1,249	...	1	1	...	(D)	(D)	...	13
383	383	...	(D)	(D)	...	...	...	...	14
251	251	...	...	...	...	1	1	...	15
155	153	2	5	3	2	(D)	(D)	...	16
3,472	3,426	46	149	103	46	131	131	...	17
552	550	2	34	34	...	9	9	...	18
373	373	...	...	...	...	(D)	(D)	...	19
2,972	2,412	560	150	98	52	737	688	49	20
886	662	224	90	65	25	(D)	(D)	...	21
843	631	212	88	63	25	(D)	(D)	...	22
26	14	12	1	1	...	10	10	...	23
17	17	...	1	1	...	1	1	...	24
86,566	2,814	83,752	2,983	114	2,869	8,905	144	8,761	25
253,588	8,231	245,357	8,201	331	7,870	26,015	421	25,594	26
9	...	9	2	...	2	...	...	...	27
19	...	19	4	...	4	...	...	...	28
50,030	1,459	48,571	26,007	996	25,011	2,285	14	2,271	29
21,221	396	20,825	2,658	80	2,578	999	14	985	30
28,809	1,063	27,746	23,349	916	22,433	1,286	...	1,286	31
5,677	...	5,677	799	...	799	302	...	302	32
748	...	748	163	...	163	18	...	18	33
18,281	1,449	16,832	14,980	996	13,984	1,256	14	1,242	34
4,738	428	4,310	3,917	294	3,623	318	4	314	35
12,365	7	12,358	9,040	...	9,040	115	...	115	36
5,450	1	5,449	4,731	...	4,731	30	...	30	37
5	...	5	...	...	...	1	...	1	38
61	...	61	...	...	...	8	...	8	39
832	832	...	21	21	...	(D)	(D)	...	40
3	...	3	1	...	1	...	...	...	41

Table 5A.—RECEIPTS BY THE OIL AND GAS FIELD CONTRACT SERVICES INDUSTRIES FOR SERVICES AND SECONDARY PRODUCTS, AND TOTAL RECEIPTS FOR SUCH SERVICES

Services and products		East North Central—Continued					
		Illinois			Michigan		
		All industries, total	Oil and gas field contract services industries	Crude petroleum and natural gas industries	All industries, total ¹	Oil and gas field contract services industries ¹	Crude petroleum and natural gas industries
1	All services and products, total.....\$1,000..	224,266	42,128	182,138	43,077	8,982	34,095
	<u>Primary Services</u>						
2	Services primary to the drilling oil and gas wells industry, total.....do....	26,719	25,388	1,331	7,499	6,879	620
3	Drilling oil, gas, dry, and service wells.....do....	24,009	22,807	1,202	7,452	6,832	620
4	Drilling in, spudding in, tailing in, and reworking wells.....do....	2,710	2,581	129	47	47	...
5	Services primary to the building, repairing, and dismantling rigs and derricks industry (building, repairing, and dismantling rigs and derricks).....do....	1	1	...	82	82	...
6	Services primary to the oil and gas field contract services, n.e.c., industry, total.....do....	9,087	8,806	281	1,222	1,011	211
7	Geophysical exploration.....do....	(D)	(D)	...	(D)	(D)	...
8	Other exploration.....do....	(D)	(D)	...	(D)	(D)	...
9	Well surveying and well logging.....do....	(D)	(D)	...	...	...	...
10	Drilling water wells.....do....	116	116	...	...	...	...
11	Excavating slush pits and cellars.....do....	251	251	...	1	...	1
12	Running, cutting, and pulling casing, tubes, and rods ⁵.....do....	1,133	1,105	28	418	416	2
13	Cementing wells.....do....	1,082	1,082	...	(D)	(D)	...
14	Shooting wells.....do....	(D)	(D)	...	...	...	...
15	Perforating well casing.....do....	250	250	...	...	...	...
16	Acidizing and other chemical treatment of wells.....do....	118	118	...	(D)	(D)	...
17	Cleaning out, bailing out, and swabbing wells.....do....	2,938	2,938	...	254	254	...
18	Installing production equipment, such as wellhead fittings, pumps, and engines.....do....	485	483	2	24	24	...
19	Erecting, cleaning, repairing, and dismantling lease tanks.....do....	290	290	...	(D)	(D)	...
20	Other services ⁶.....do....	1,769	1,518	251	316	108	208
	<u>Secondary Services and Products</u>						
21	Contract services classified in other industries, total.....do....	711	527	184	(D)	(D)	15
22	Hauling oil and gas field supplies and equipment.....do....	681	509	172	(D)	(D)	15
23	Oil and gas field machine-shop work.....do....	15	3	12	...	...	...
24	Other services ⁷.....do....	15	15	...	...	...	...
25	Crude petroleum shipped: Quantity.....1,000 barrels..	63,253	2,277	60,976	11,425	279	11,146
26	Value.....\$1,000..	186,496	6,676	179,820	32,876	803	32,073
27	Field condensate and drips shipped: Quantity.....1,000 barrels..	1	...	1	6	...	6
28	Value.....\$1,000..	4	...	4	11	...	11
29	Natural gas: Gross production, total.....million cu. ft..	10,865	19	10,846	10,873	430	10,443
30	Gas from oil wells.....do....	10,773	19	10,754	6,791	283	6,508
31	Gas from gas wells.....do....	92	...	92	4,082	147	3,935
32	Net deliveries to natural-gasoline plants: Quantity.....do....	3,367	...	3,367	1,209	...	1,209
33	Value ⁸.....\$1,000..	439	...	439	128	...	128
34	Delivered to distributors and transmission companies: Quantity.....million cu. ft..	126	19	107	1,919	420	1,499
35	Value.....\$1,000..	18	4	14	485	126	359
36	Delivered to consumers: Quantity.....million cu. ft..	89	...	89	3,121	7	3,114
37	Value.....\$1,000..	10	...	10	679	1	678
38	Electric energy generated and sold: Quantity.....million kwh..	4	...	4	...	...	...
39	Value.....\$1,000..	53	...	53	...	...	...
40	Products purchased and resold without further processing.....do....	726	726	...	(D)	(D)	...
41	Other products ⁹do....	2	...	2

See footnotes at end of table.

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[illegible]

Table 5A.—RECEIPTS BY THE OIL AND GAS FIELD CONTRACT SERVICES INDUSTRIES FOR SERVICES AND SECONDARY PRODUCTS, AND TOTAL RECEIPTS FOR SUCH SERVICES

Services and products		West North Central—Continued				South Atlantic		
		Kansas			Iowa and South Dakota (all industries)	Total		
		All industries, total ²	Oil and gas field contract services industries ²	Crude petroleum and natural gas industries		All industries, total	Oil and gas field contract services industries	Crude petroleum and natural gas industries
1	All services and products, total.....\$1,000..	416,988	68,036	348,952	796	65,591	10,389	55,202
	<u>Primary Services</u>							
2	Services primary to the drilling oil and gas wells industry, total.....do....	45,829	(D)	(D)	(D)	8,063	8,063	...
3	Drilling oil, gas, dry, and service wells.....do....	41,910	(D)	(D)	(D)	7,895	7,895	...
4	Drilling in, spudding in, tailing in, and reworking wells.....do....	3,919	3,854	5	...	168	168	...
5	Services primary to the building, repairing, and dismantling rigs and derricks industry (building, repairing, and dismantling rigs and derricks).....do....	171	171	...	...	115	115	...
6	Services primary to the oil and gas field contract services, n.e.c., industry, total.....do....	18,012	16,811	1,201	(D)	1,569	1,494	75
7	Geophysical exploration.....do....	1,978	1,978	...	(D)	150	150	...
8	Other exploration.....do....	586	446	140	(D)	...	...	...
9	Well surveying and well logging.....do....	249	249	...	...	...	...	...
10	Drilling water wells.....do....	277	277	...	(D)	(D)	(D)	...
11	Excavating slush pits and cellars.....do....	5,843	5,772	...	8	8	8	...
12	Running, cutting, and pulling casing, tubes, and rods ⁵.....do....			71	326	(D)	(D)	...
13	Cementing wells.....do....	578	578	...	(D)	(D)	(D)	...
14	Shooting wells.....do....	124	124	...	344	344	344	...
15	Perforating well casing.....do....	5	5	...	...	...	...	...
16	Acidizing and other chemical treatment of wells.....do....	551	551	...	1	1	1	...
17	Cleaning out, bailing out, and swabbing wells.....do....	2,332	2,328	4	...	238	(D)	(D)
18	Installing production equipment, such as wellhead fittings, pumps, and engines.....do....	1,145	1,145	...	...	6	6	...
19	Erecting, cleaning, repairing, and dismantling lease tanks.....do....	4,344	3,358	...	...	(D)	(D)	...
20	Other services ⁶.....do....			986	...	455	385	70
	<u>Secondary Services and Products</u>							
21	Contract services classified in other industries, total.....do....	999	(D)	(D)	...	208	207	1
22	Hauling oil and gas field supplies and equipment.....do....	999	(D)	54	...	84	83	1
23	Oil and gas field machine-shop work.....do....		(D)	...	...	...	...	...
24	Other services ⁷.....do....		13	(D)	...	124	124	...
	<u>Crude petroleum shipped:</u>							
25	Quantity.....1,000 barrels..	110,668	2,649	108,019	(D)	3,222	71	3,151
26	Value.....\$1,000..	305,412	7,281	298,131	(D)	8,953	200	8,753
	<u>Field condensate and drips shipped:</u>							
27	Quantity.....1,000 barrels..	21	...	21	...	9	(¹⁰)	9
28	Value.....\$1,000..	64	...	64	...	31	4	27
	<u>Natural gas:</u>							
29	Gross production, total.....million cu. ft..	395,014	3,436	391,578	(D)	173,498	1,051	172,447
30	Gas from oil wells.....do....	14,336	1,191	13,145	(D)	5,856	28	5,828
31	Gas from gas wells.....do....	380,678	2,245	378,433	(D)	167,642	1,023	166,619
	<u>Net deliveries to natural-gasoline plants:</u>							
32	Quantity.....do....	105,269	510	104,759	...	4,658	...	4,658
33	Value ⁸.....\$1,000..	15,024	18	15,006	...	3,030	...	3,030
	<u>Delivered to distributors and transmission companies:</u>							
34	Quantity.....million cu. ft..	277,490	2,873	274,617	...	126,070	1,046	125,024
35	Value.....\$1,000..	30,705	415	30,290	...	30,534	255	30,279
	<u>Delivered to consumers:</u>							
36	Quantity.....million cu. ft..	5,846	...	5,846	(D)	36,430	...	36,430
37	Value.....\$1,000..	666	...	666	(D)	13,002	...	13,002
	<u>Electric energy generated and sold:</u>							
38	Quantity.....million kwh..	...	...	...	...	...	...	...
39	Value.....\$1,000..	...	...	...	...	...	...	...
40	Products purchased and resold without further processing.....do....	106	106	...	(D)	86	51	35
41	Other products ⁹do....

See footnotes at end of table.

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South Atlantic—Continued						East South Central						
West Virginia			Maryland, Virginia, Georgia, and Florida			Total			Kentucky			
All industries, total	Oil and gas field contract services industries	Crude petroleum and natural gas industries	All industries, total	Oil and gas field contract services industries	Crude petroleum and natural gas industries	All industries, total	Oil and gas field contract services industries	Crude petroleum and natural gas industries	All industries, total	Oil and gas field contract services industries	Crude petroleum and natural gas industries	
61,944	8,604	53,340	3,647	1,785	1,862	178,379	26,572	151,807	65,051	11,095	53,956	1
6,463	6,463	...	1,600	1,600	...	18,901	18,350	551	8,610	(D)	(D)	2
6,295	6,295	...	1,600	1,600	...	18,112	17,564	548	8,248	(D)	(D)	3
168	168	...	...	...	...	789	786	3	362	359	3	4
106	106	...	9	9	...	217	217	...	(D)	(D)	...	5
1,414	1,339	75	155	155	...	6,029	5,962	67	1,479	(D)	(D)	6
...	...	...	150	150	...	528	528	...	...	...	...	7
...	...	...	...	...	...	1,250	1,250	...	85	85	...	8
...	...	...	...	...	...	112	112	...	...	...	...	9
(D)	(D)	...	(D)	(D)	...	29	29	...	28	28	...	10
8	8	...	...	...	...	424	424	...	130	130	...	11
326	(D)	(D)	...	...	...	1,176	1,176	...	310	310	...	12
(D)	(D)	...	...	...	...	(D)	(D)	...	(D)	(D)	...	13
344	344	...	...	...	...	126	126	...	126	126	...	14
...	...	...	...	...	...	1	1	...	1	1	...	15
1	1	...	...	...	...	70	70	...	(D)	(D)	...	16
(D)	(D)	(D)	(D)	...	...	314	307	7	122	115	7	17
6	6	...	...	...	...	615	615	...	219	219	...	18
(D)	(D)	...	...	...	...	(D)	(D)	1	35	34	1	19
455	385	70	...	...	...	1,201	1,142	59	390	(D)	(D)	20
202	201	1	6	6	...	316	312	4	139	135	4	21
78	77	1	6	6	...	248	(D)	(D)	74	(D)	(D)	22
...	...	...	...	...	...	28	28	...	25	25	...	23
124	124	...	...	...	...	40	(D)	(D)	40	(D)	(D)	24
2,668	(D)	(D)	554	(D)	(D)	46,246	602	45,644	12,290	409	11,881	25
7,872	(D)	(D)	1,081	(D)	(D)	119,308	1,668	117,640	35,986	1,176	34,810	26
9	(10)	9	...	...	...	783	...	783	4	...	4	27
31	4	27	...	...	...	2,331	...	2,331	14	...	14	28
170,667	1,050	169,617	2,831	1	2,830	274,362	491	273,871	73,512	270	73,242	29
5,807	27	5,780	49	1	48	56,432	491	55,941	2,298	270	2,028	30
164,860	1,023	163,837	2,782	...	2,782	217,930	...	217,930	71,214	...	71,214	31
4,658	...	4,658	...	...	...	7,890	...	7,890	3,407	...	3,407	32
3,030	...	3,030	...	...	...	4,958	...	4,958	3,476	...	3,476	33
123,544	1,046	122,498	2,526	...	2,526	192,097	276	191,821	64,146	66	64,080	34
29,905	255	29,650	629	...	629	25,445	48	25,397	14,820	21	14,799	35
36,174	...	36,174	256	...	256	4,822	...	4,822	1,361	...	1,361	36
(D)	...	(D)	(D)	...	(D)	858	...	858	507	...	507	37
...	...	...	...	...	(10)	...	(10)	...	(10)	...	...	38
...	...	...	...	...	...	1	...	1	...	...	...	39
(D)	(D)	(D)</										

Table 5A.—RECEIPTS BY THE OIL AND GAS FIELD CONTRACT SERVICES INDUSTRIES FOR SERVICES AND SECONDARY PRODUCTS, AND TOTAL RECEIPTS FOR SUCH SERVICES

Services and products		East South Central—Continued					
		Tennessee			Alabama		
		All industries, total	Oil and gas field contract services industries	Crude petroleum and natural gas industries	All industries, total	Oil and gas field contract services industries	Crude petroleum and natural gas industries
1	All services and products, total.....\$1,000..	120	63	57	4,850	1,714	3,136
	<u>Primary Services</u>						
2	Services primary to the drilling oil and gas wells industry, total.....do....	59	59	...	167	167	...
3	Drilling oil, gas, dry, and service wells.....do....	56	56	...	167	167	...
4	Drilling in, spudding in, tailing in, and reworking wells.....do....	3	3	...	...	...	...
5	Services primary to the building, repairing, and dismantling rigs and derricks industry (building, repairing, and dismantling rigs and derricks).....do....	...	...	...	(D)	(D)	...
6	Services primary to the oil and gas field contract services, n.e.c., industry, total.....do....	4	4	...	1,538	1,538	...
7	Geophysical exploration.....do....	...	...	...	1,531	1,531	{
8	Other exploration.....do....	...	...	...
9	Well surveying and well logging.....do....	...	...	...	...	...	...
10	Drilling water wells.....do....	1	1	...	...	...	...
11	Excavating slush pits and cellars.....do....	...	...	...	...	...	...
12	Running, cutting, and pulling casing, tubes, and rods ⁵.....do....	...	...	...	...	...	...
13	Cementing wells.....do....	...	...	...	...	...	...
14	Shooting wells.....do....	...	...	...	...	...	...
15	Perforating well casing.....do....	...	...	...	...	...	...
16	Acidizing and other chemical treatment of wells.....do....	...	...	...	...	...	...
17	Cleaning out, bailing out, and swabbing wells.....do....	...	...	...	...	...	...
18	Installing production equipment, such as wellhead fittings, pumps, and engines.....do....	...	...	...	7	7	...
19	Erecting, cleaning, repairing, and dismantling lease tanks.....do....	...	...	...	...	...	...
20	Other services ⁶.....do....	3	3	...	...	...	...
	<u>Secondary Services and Products</u>						
21	Contract services classified in other industries, total.....do....	...	...	...	2	2	...
22	Hauling oil and gas field supplies and equipment.....do....	...	...	...	2	2	...
23	Oil and gas field machine-shop work.....do....	...	...	...	...	...	...
24	Other services ⁷.....do....	...	...	...	...	...	...
	Crude petroleum shipped:						
25	Quantity.....1,000 barrels..	13	...	13	1,584	...	1,584
26	Value.....\$1,000..	46	...	46	3,136	...	3,136
	Field condensate and drips shipped:						
27	Quantity.....1,000 barrels..	...	...	...	...	...	...
28	Value.....\$1,000..	...	...	...	...	...	...
	Natural gas:						
29	Gross production, total.....million cu. ft..	94	...	94	96	...	96
30	Gas from oil wells.....do....	...	...	...	96	...	96
31	Gas from gas wells.....do....	94	...	94	...	...	...
	Net deliveries to natural-gasoline plants:						
32	Quantity.....do....	27	...	27	...	...	...
33	Value ⁸.....\$1,000..	3	...	3	...	...	...
	Delivered to distributors and transmission companies:						
34	Quantity.....million cu. ft..	5	...	5	...	...	...
35	Value.....\$1,000..	1	...	1	...	...	...
	Delivered to consumers:						
36	Quantity.....million cu. ft..	62	...	62	...	...	...
37	Value.....\$1,000..	7	...	7	...	...	...
	Electric energy generated and sold:						
38	Quantity.....million kwh..	...	...	...	...	...	...
39	Value.....\$1,000..	...	...	...	...	...	...
40	Products purchased and resold without further processing.....do....	...	...	...	(D)	(D)	...
41	Other products ⁹do....

See footnotes at end of table.

OIL AND GAS FIELD CONTRACT SERVICES

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AND PRODUCTS IN ALL CRUDE PETROLEUM AND NATURAL GAS EXTRACTION INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

East South Central—Continued			West South Central						
Mississippi			Total			Arkansas			
All industries, total	Oil and gas field contract services industries	Crude petroleum and natural gas industries	All industries, total	Oil and gas field contract services industries	Crude petroleum and natural gas industries	All industries, total	Oil and gas field contract services industries	Crude petroleum and natural gas industries	
108,358	13,700	94,658	5,630,995	1,195,513	4,435,482	80,319	6,578	73,741	1
10,065	(D)	(D)	626,192	612,655	13,537	3,191	3,054	137	2
9,641	(D)	(D)	589,839	577,056	12,783	3,172	3,035	137	3
424	424	...	36,353	35,599	754	19	19	...	4
205	205	...	9,346	9,346	...	75	75	...	5
3,008	(D)	(D)	488,160	482,995	5,165	3,009	2,944	65	6
274	274	...	77,847	77,723	124	} 240	240 {	...	7
...	...	...	7,151	7,068	83			...	8
...	...	...	65,866	65,866	...	(D)	(D)	...	9
...	...	...	606	592	14	...	...	...	10
294	294	...	4,926	4,925	1	50	50	...	11
866	866	...	24,944	24,736	208	740	740	...	12
...	...	...	54,107	54,107	...	(D)	(D)	...	13
...	...	...	984	984	...	...	...	...	14
...	...	...	36,272	36,272	...	...	...	...	15
(D)	(D)	...	50,854	50,854	...	...	...	...	16
192	192	...	35,422	35,140	282	625	625	...	17
389	389	...	9,799	9,707	92	238	238	...	18
(D)	(D)	...	4,477	4,450	27	70	70	...	19
808	(D)	(D)	114,905	110,571	4,334	943	878	65	20
175	175	...	6,248	5,779	469	(D)	(D)	...	21
172	172	...	4,303	4,164	139	(D)	(D)	...	22
3	3	...	550	527	23	...	...	...	23
...	...	...	1,395	1,088	307	...	...	...	24
32,359	193	32,166	1,341,067	11,225	1,329,842	26,860	159	26,701	25
80,140	492	79,648	3,810,027	31,096	3,778,931	71,695	414	71,281	26
779	...	779	23,912	6	23,906	26	...	26	27
2,317	...	2,317	72,166	17	72,149	59	...	59	28
200,660	221	200,439	7,638,090	24,966	7,613,124	49,541	176	49,365	29
54,038	221	53,817	2,447,401	13,267	2,434,134	35,991	96	35,895	30
146,622	...	146,622	5,190,689	11,699	5,178,990	13,550	80	13,470	31
4,456	...	4,456	2,625,606	973	2,624,633	16,300	...	16,300	32
1,479	...	1,479	268,498	94	268,404	1,136	...	1,136	33
127,946	210	127,736	3,173,791	22,309	3,151,482	11,909	176	11,733	34
10,624	27	10,597	273,056	2,218	270,838	1,080	18	1,062	35
3,399	...	3,399	259,842	853	258,989	5	...	5	36
344	...	344	25,927	49	25,878	1	...	1	37
(10)	...	(10)	11	...	11	...	...	...	38
1	...	1	101	...	101	...	...	...	39
...	...	...	51,264	51,264	...	(D)	(D)	...	40
...	...	...	10	...	10	...	...	...	41

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 5A.—RECEIPTS BY THE OIL AND GAS FIELD CONTRACT SERVICES INDUSTRIES FOR SERVICES AND SECONDARY PRODUCTS, AND TOTAL RECEIPTS FOR SUCH SERVICES

Services and products		West South Central—Continued					
		Louisiana			Oklahoma		
		All industries, total	Oil and gas field contract services industries	Crude petroleum and natural gas industries	All industries, total	Oil and gas field contract services industries	Crude petroleum and natural gas industries
1	All services and products, total.....\$1,000..	1,058,281	210,686	847,595	672,912	149,574	523,338
	<u>Primary Services</u>						
2	Services primary to the drilling oil and gas wells industry, total.....do....	146,087	146,029	58	113,732	110,128	3,604
3	Drilling oil, gas, dry, and service wells.....do....	138,189	138,131	58	105,576	102,014	3,562
4	Drilling in, spudding in, tailing in, and reworking wells..do....	7,898	7,898	...	8,156	8,114	42
5	Services primary to the building, repairing, and dismantling rigs and derricks industry (building, repairing, and dismantling rigs and derricks).....do....	3,456	3,456	...	825	825	...
6	Services primary to the oil and gas field contract services, n.e.c., industry, total.....do....	57,849	55,623	2,226	32,553	31,673	880
7	Geophysical exploration.....do....	12,506	12,506	...	6,268	6,222	...
8	Other exploration.....do....	...	...	...	(D)	(D)	46
9	Well surveying and well logging.....do....	2,580	2,580	...	(D)	(D)	...
10	Drilling water wells.....do....	(D)	(D)	...	(D)	(D)	...
11	Excavating slush pits and cellars.....do....	588	588	...	1,639	1,638	1
12	Running, cutting, and pulling casing, tubes, and rods ⁵.....do....	3,081	3,081	...	4,341	4,229	112
13	Cementing wells.....do....	(D)	(D)	...	963	963	...
14	Shooting wells.....do....	(D)	(D)	...	(D)	(D)	...
15	Perforating well casing.....do....	...	...	...	286	286	...
16	Acidizing and other chemical treatment of wells.....do....	...	...	...	461	461	...
17	Cleaning out, bailing out, and swabbing wells.....do....	1,301	1,275	26	9,191	9,160	31
18	Installing production equipment, such as wellhead fittings, pumps, and engines.....do....	1,069	1,069	...	1,747	1,741	6
19	Erecting, cleaning, repairing, and dismantling lease tanks.....do....	337	337	...	949	949	...
20	Other services ⁶.....do....	36,217	34,017	2,200	5,704	5,020	684
	<u>Secondary Services and Products</u>						
21	Contract services classified in other industries, total.....do....	1,394	1,394	...	(D)	(D)	3
22	Hauling oil and gas field supplies and equipment.....do....	1,073	1,073	...	(D)	(D)	3
23	Oil and gas field machine-shop work.....do....	115	115	...	24	24	...
24	Other services ⁷.....do....	206	206	...	115	115	...
25	Crude petroleum shipped:						
26	Quantity.....1,000 barrels..	231,238	771	230,467	171,068	2,036	169,032
	Value.....\$1,000..	676,822	2,168	674,654	471,423	5,450	465,973
27	Field condensate and drips shipped:						
28	Quantity.....1,000 barrels..	10,733	(D)	(D)	208	...	208
	Value.....\$1,000..	32,524	(D)	(D)	599	...	599
29	Natural gas:						
30	Gross production, total.....million cu. ft..	1,661,805	2,854	1,658,951	787,468	5,080	782,388
31	Gas from oil wells.....do....	386,266	1,176	385,090	423,295	2,878	420,417
	Gas from gas wells.....do....	1,275,539	1,678	1,273,861	364,173	2,202	361,971
32	Net deliveries to natural-gasoline plants:						
33	Quantity.....do....	221,757	...	221,757	284,311	236	284,075
	Value ⁸.....\$1,000..	42,065	...	42,065	22,622	11	22,611
34	Delivered to distributors and transmission companies:						
35	Quantity.....million cu. ft..	1,012,217	2,044	1,010,173	278,263	4,710	273,553
	Value.....\$1,000..	89,014	187	88,827	26,947	487	26,460
36	Delivered to consumers:						
37	Quantity.....million cu. ft..	78,858	(D)	(D)	20,895	...	20,895
	Value.....\$1,000..	7,285	(D)	(D)	3,144	...	3,144
38	Electric energy generated and sold:						
39	Quantity.....million kwh..	...	...	...	9	...	9
	Value.....\$1,000..	...	...	...	64	...	64
40	Products purchased and resold without further processing.....do....	1,785	1,785	...	(D)	(D)	...
41	Other products ⁹do....

See footnotes at end of table.

OIL AND GAS FIELD CONTRACT SERVICES

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AND PRODUCTS IN ALL CRUDE PETROLEUM AND NATURAL GAS EXTRACTION INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

West South Central—Continued			Mountain									
Texas			Total			Montana			Wyoming			
All industries, total	Oil and gas field contract services industries	Crude petroleum and natural gas industries	All industries, total	Oil and gas field contract services industries	Crude petroleum and natural gas industries	All industries, total ³	Oil and gas field contract services industries ³	Crude petroleum and natural gas industries	All industries, total	Oil and gas field contract services industries	Crude petroleum and natural gas industries	
3,819,483	828,675	2,990,808	752,710	125,802	626,908	41,595	9,272	32,323	266,175	42,546	223,629	1
363,182	353,444	9,738	93,308	91,297	2,011	9,011	9,011	...	31,513	30,262	1,251	2
342,902	333,876	9,026	91,218	89,243	1,975	9,011	9,011	{ ...	30,793	29,578	1,215	3
20,280	19,568	712	2,090	2,054	36				720	684	36	4
4,990	4,990	...	530	529	1	...	...	...	126	125	1	5
394,749	392,755	1,994	28,224	27,876	348	148	(D)	(D)	9,584	9,394	190	6
59,238	59,114	124	8,067	8,067	...	...	...	...	3,608	3,608	...	7
6,746	6,709	37	666	648	18	...	...	...	303	303	...	8
62,343	62,343	...	542	542	...	...	...	...	56	56	...	9
480	466	14	232	232	...	...	...	...	79	79	...	10
2,649	2,649	...	513	513	...	...	...	...	131	131	...	11
16,782	16,686	96	3,158	3,158	...	3	3	...	840	840	...	12
52,991	52,991	...	439	439	...	...	...	...	(D)	(D)	...	13
929	929	...	614	614	...	...	...	...	(D)	(D)	...	14
35,986	35,986	...	1	1	...	...	...	...	...	...	...	15
50,393	50,393	...	273	273	...	...	...	...	(D)	(D)	...	16
24,305	24,080	225	6,229	6,228	1	44	44	...	1,663	1,662	1	17
6,745	6,659	86	1,706	1,700	6	...	...	...	352	346	6	18
3,121	3,094	27	1,263	1,263	...	...	...	...	235	235	...	19
72,041	70,656	1,385	4,521	4,198	323	101	(D)	(D)	1,844	1,661	183	20
4,088	3,622	466	1,065	1,053	12	65	(D)	(D)	87	(D)	(D)	21
2,603	2,467	136	437	(D)	(D)	65	(D)	(D)	62	62	...	22
411	388	23	55	55	...		(D)	...	...	...	...	23
1,074	767	307	573	(D)	(D)		25	(D)	(D)	24
911,901	8,259	903,642	225,283	1,675	223,608	13,771	26	13,745	91,131	1,049	90,082	25
2,590,087	23,064	2,567,023	577,979	4,251	573,728	30,446	64	30,382	216,861	2,547	214,314	26
12,945	(D)	(D)	721	...	721	(D)	...	(D)	103	...	103	27
38,984	(D)	(D)	2,050	...	2,050	(D)	...	(D)	313	...	313	28
5,139,276	16,856	5,122,420	678,994	2,588	676,406	30,261	(D)	(D)	110,290	(D)	(D)	29
1,601,849	9,117	1,592,732	304,662	1,878	302,784	2,549	(D)	(D)	62,655	(D)	(D)	30
3,537,427	7,739	3,529,688	374,332	710	373,622	27,712	...	27,712	47,635	...	47,635	31
2,103,238	737	2,102,501	233,715	...	233,715	1,528	...	1,528	10,897	...	10,897	32
202,675	83	202,592	16,367	...	16,367	216	...	216	2,499	...	2,499	33
1,871,402	15,379	1,856,023	248,771	2,549	246,222	15,435	(D)	(D)	54,255	(D)	(D)	34
156,015	1,526	154,489	24,116	376	23,740	849	(D)	(D)	4,740	(D)	(D)	35
160,084	(D)	(D)	99,491	...	99,491	9,720	...	9,720	3,592	...	3,592	36
15,497	(D)	(D)	8,618	...	8,618	837	...	837	323	...	323	37
2	...	2	5	...	5	...	...	...	2	...	2	38
37	...	37	33	...	33	...	...	...	13	...	13	39
49,169	49,169	...	420	420	...	(D)	(D)	...	116	116	...	40
10	...	10	...	...	...	...	...	...	...	...	...	41

Table 5A.—RECEIPTS BY THE OIL AND GAS FIELD CONTRACT SERVICES INDUSTRIES FOR SERVICES AND SECONDARY PRODUCTS, AND TOTAL RECEIPTS FOR SUCH SERVICES

Services and products		Mountain--Continued					
		Colorado ³			New Mexico		
		All industries, total ³	Oil and gas field contract services industries ³	Crude petroleum and natural gas industries	All industries, total	Oil and gas field contract services industries	Crude petroleum and natural gas industries
1	All services and products, total.....\$1,000..	159,859	32,323	127,536	275,438	38,707	236,731
	<u>Primary Services</u>						
2	Services primary to the drilling oil and gas wells industry, total.....do....	21,478	21,478	...	29,276	28,516	760
3	Drilling oil, gas, dry, and service wells.....do....	21,274	21,274	...	28,626	27,866	760
4	Drilling in, spudding in, tailing in, and reworking wells..do....	204	204	...	650	650	...
5	Services primary to the building, repairing, and dismantling rigs and derricks industry (building, repairing, and dismantling rigs and derricks).....do....	10	10	...	249	249	...
6	Services primary to the oil and gas field contract services, n.e.c., industry, total.....do....	9,639	(D)	(D)	8,217	8,121	96
7	Geophysical exploration.....do....	2,937	2,937	...	956	956	...
8	Other exploration.....do....	236	218	18	127	127	...
9	Well surveying and well logging.....do....	382	382	...	104	104	...
10	Drilling water wells.....do....	56	56	...	(D)	(D)	...
11	Excavating slush pits and cellars.....do....	303	303	...	79	79	...
12	Running, cutting, and pulling casing, tubes, and rods ⁵.....do....	795	795	...	1,520	1,520	...
13	Cementing wells.....do....	(D)	(D)	...	...	...	...
14	Shooting wells.....do....	...	...	...	(D)	(D)	...
15	Perforating well casing.....do....	...	...	...	1	1	...
16	Acidizing and other chemical treatment of wells.....do....	(D)	(D)	...	...	...	...
17	Cleaning out, bailing out, and swabbing wells.....do....	2,263	2,263	...	2,259	2,259	...
18	Installing production equipment, such as wellhead fittings, pumps, and engines.....do....	912	912	...	442	442	...
19	Erecting, cleaning, repairing, and dismantling lease tanks.....do....	584	584	...	444	444	...
20	Other services ⁶.....do....	908	(D)	(D)	1,668	1,572	96
	<u>Secondary Services and Products</u>						
21	Contract services classified in other industries, total.....do....	521	(D)	(D)	392	392	...
22	Hauling oil and gas field supplies and equipment.....do....		(D)	(D)	(D)	(D)	...
23	Oil and gas field machine-shop work.....do....	521	(D)	...	...	...	...
24	Other services ⁷.....do....		(D)	...	(D)	(D)	...
	Crude petroleum shipped:						
25	Quantity.....1,000 barrels..	44,667	214	44,453	73,774	326	73,448
26	Value.....\$1,000..	123,851	591	123,260	202,257	906	201,351
	Field condensate and drips shipped:						
27	Quantity.....1,000 barrels..	(D)	...	(D)	572	...	572
28	Value.....\$1,000..	(D)	...	(D)	1,602	...	1,602
	Natural gas:						
29	Gross production, total.....million cu. ft..	66,593	313	66,280	455,154	2,055	453,099
30	Gas from oil wells.....do....	37,535	143	37,392	201,515	1,515	200,000
31	Gas from gas wells.....do....	29,058	170	28,888	253,639	540	253,099
	Net deliveries to natural-gasoline plants:						
32	Quantity.....do....	5,757	...	5,757	215,533	...	215,533
33	Value ⁸.....\$1,000..	411	...	411	13,241	...	13,241
	Delivered to distributors and transmission companies:						
34	Quantity.....million cu. ft..	26,716	305	26,411	136,527	2,025	134,502
35	Value.....\$1,000..	2,873	48	2,825	13,401	304	13,097
	Delivered to consumers:						
36	Quantity.....million cu. ft..	8,223	...	8,223	77,956	...	77,956
37	Value.....\$1,000..	894	...	894	6,564	...	6,564
	Electric energy generated and sold:						
38	Quantity.....million kwh..	...	...	...	3	...	3
39	Value.....\$1,000..	...	...	...	20	...	20
40	Products purchased and resold without further processing.....do....	(D)	(D)	...	219	219	...
41	Other products ⁹.....do....	...	...	...	...	...	...

D Withheld to avoid approximately disclosing figures for individual companies.

¹Figures for 2 establishments in Ohio, classified in the building, repairing, and dismantling rigs and derricks industry are included with figures for Michigan, amounting to less than 0.5 percent of the combined total receipts.

²Figures for 2 establishments in North Dakota classified in the building, repairing, and dismantling rigs and derricks industry and 11 establishments in Nebraska classified in the oil and gas field contract services, n.e.c., industry are included with figures for Kansas, amounting to less than one percent of the combined total receipts.

³Figures for 46 establishments in Montana, classified in the oil and gas field contract services, n.e.c., industry are included with figures for Colorado.

⁴Includes receipts of \$577,000 for contract work in the natural gasoline and cycle condensate industries. Of this total, \$455,000 was for services performed in Texas, and \$122,000 for services in Kansas, Arkansas, Louisiana, Oklahoma, and California.

AND PRODUCTS IN ALL CRUDE PETROLEUM AND NATURAL GAS EXTRACTION INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

Mountain--Continued		Pacific							
Utah (all industries)	Idaho, Arizona, and Nevada (all industries)	Total			California			Washington and Oregon (oil and gas field contract services industries only)	
		All industries, total	Oil and gas field contract services industries	Crude petroleum and natural gas industries	All industries, total	Oil and gas field contract services industries	Crude petroleum and natural gas industries		
9,064	579	1,189,748	108,223	1,081,525	1,189,695	108,170	1,081,525	53	1
(D)	(D)	70,253	69,204	1,049	70,253	69,204	1,049	...	2
(D)	(D)	68,108	67,116	992	68,108	67,116	992	...	3
(D)	...	2,145	2,088	57	2,145	2,088	57	...	4
145	...	2,165	2,165	...	2,165	2,165	...	...	5
(D)	(D)	35,505	32,967	2,538	35,452	32,914	2,538	53	6
(D)	(D)	984	935	49	984	935	49	...	7
...	...	344	344	...	291	291	...	53	8
...	...	1,717	1,717	...	1,717	1,717	...	...	9
(D)	...	180	180	...	180	180	...	...	10
...	...	345	345	...	345	345	...	...	11
...	...	3,583	3,576	7	3,583	3,576	7	...	12
...	...	6,337	6,337	...	6,337	6,337	...	...	13
...	...	...	...	...	...	...	...	...	14
...	...	2,343	2,343	...	2,343	2,343	...	...	15
...	...	1,433	1,433	...	1,433	1,433	...	...	16
...	...	6,191	6,178	13	6,191	6,178	13	...	17
...	...	360	359	1	360	359	1	...	18
...	...	1,109	1,109	...	1,109	1,109	...	...	19
...	...	10,579	8,111	2,468	10,579	8,111	2,468	...	20
...	...	744	698	46	744	698	46	...	21
...	...	218	211	7	218	211	7	...	22
...	...	240	240	...	240	240	...	...	23
...	...	286	247	39	286	247	39	...	24
(D)	(D)	356,322	968	355,354	356,322	968	355,354	...	25
(D)	(D)	927,081	1,942	925,139	927,081	1,942	925,139	...	26
(D)	...	145	...	145	145	...	145	...	27
(D)	...	480	...	480	480	...	480	...	28
16,694	2	761,893	296	761,597	761,893	296	761,597	...	29
406	2	574,649	253	574,396	574,649	253	574,396	...	30
16,288	...	187,244	43	187,201	187,244	43	187,201	...	31
...	...	184,634	...	184,634	184,634	...	184,634	...	32
...	...	101,263	...	101,263	101,263	...	101,263	...	33
15,838	...	207,961	246	207,715	207,961	246	207,715	...	34
2,253	...	42,863	64	42,799	42,863	64	42,799	...	35
...	...	43,893	...	43,893	43,893	...	43,893	...	36
...	...	8,202	...	8,202	8,202	...	8,202	...	37
...	...	1	...	1	1	...	1	...	38
...	...	9	...	9	9	...	9	...	39
...	...	1,183	1,183	...	1,183	1,183	...	...	40
...	...	...	...	...	...	...	...	...	41

⁵See table 3A, footnote 7.⁶For the oil and gas field contract services industries, see table 3C, footnote 3. For the crude petroleum and natural gas industries represents pumping wells but not operating leases, processing gas for sulfur and water removal, and miscellaneous oil and gas field contract services.⁷For the oil and gas field contract services industries represents prospect and test drilling for the metal mining, bituminous coal, and non-metallic minerals (except fuels) industries; other drilling for the nonmetallic minerals (except fuels) industries; exploration work for the metal mining industries; road construction and maintenance; and erection of steel buildings and oil field storage tanks off the lease. For the crude petroleum and natural gas industries represents operating pumping stations in oil and gas fields, road construction, and miscellaneous contract work.⁸Respondents were requested to include, besides the value of residue gas, the producer's realization from all products contained in the gas delivered to natural-gasoline plants.⁹Represents sales of salt, water, and steam.¹⁰Less than one-half of the unit of measure specified.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 5B.—NUMBER AND FOOTAGE OF OIL, GAS, DRY, AND SERVICE WELLS DRILLED AND COSTS BORNE BY DRILLING CONTRACTORS IN DRILLING

(Represents wells drilled on contract for others by establishments classified in the oil and gas field contract services industries and in the crude oil and gas field contract services industries and in the crude oil and gas field contract services industries performed contract)

Item	United States, total		Middle Atlantic		
	1954	1939	Total	New York	Pennsylvania
1 Number of wells drilled, total ¹	45,264	12,729	1,025	307	718
2 Oil wells.....	27,447	10,344	480	252	228
3 Gas wells.....	3,103	758	321	7	314
4 Dry holes ²	13,270	1,627	112	2	110
5 Service wells ²	1,444	(NA)	112	46	66
6 Footage drilled, total.....1,000 ft..	171,391	40,083	2,275	400	1,875
7 Oil wells.....	103,363	32,786	663	311	352
8 Gas wells.....	12,475	2,155	1,026	19	1,007
9 Dry holes.....	53,483	5,142	405	70	516
10 Service wells.....	2,070	(NA)	181		
11 Average footage drilled per well, all wells.....	3,786	3,149	2,220	1,303	2,611
12 Oil wells.....	3,766	3,170	1,381	1,234	1,544
13 Gas wells.....	4,020	2,843	3,196	2,714	3,207
14 Dry holes.....	4,030	3,160	3,616	1,458	2,932
15 Service wells.....	1,434	(NA)	1,616		
16 Costs borne by drilling contractors in drilling and equipping wells on contract, total ⁴.....\$1,000..	715,820	98,752	7,256	505	6,751
17 Per well.....	15.8	7.8	7.1	1.6	9.4
18 Per foot.....\$1..	4.18	2.46	3.19	1.26	3.60
19 Oil wells.....\$1,000..	437,499	81,261	890	346	544
20 Per well.....	15.9	7.9	1.9	1.4	2.4
21 Per foot.....\$1..	4.23	2.48	1.34	1.11	1.55
22 Gas wells.....\$1,000..	55,887	4,520	4,291	41	4,250
23 Per well.....	18.0	6.0	13.4	5.9	13.5
24 Per foot.....\$1..	4.48	2.10	4.18	2.16	4.22
25 Dry holes.....\$1,000..	216,337	12,971	1,760	(D)	(D)
26 Per well.....	16.3	8.0	15.7	(D)	(D)
27 Per foot.....\$1..	4.04	2.52	4.35	(D)	(D)
28 Service wells.....\$1,000..	6,097	(NA)	315	(D)	(D)
29 Per well.....	4.2	(NA)	2.8	(D)	(D)
30 Per foot.....\$1..	2.95	(NA)	1.74	(D)	(D)
31 Cost, excluding amount paid or due subcontractors, total.....\$1,000..	696,351	98,752	7,168	505	6,663
32 Oil wells.....	426,051	81,261	889	346	543
33 Gas wells.....	54,041	4,520	4,235	41	4,194
34 Dry holes.....	210,302	12,971	1,729	118	1,926
35 Service wells.....	5,957	(NA)	315		
36 Cost of drilling, total ⁵.....do....	689,037	95,604	7,077	503	6,574
37 Oil wells.....	420,353	78,512	887	345	542
38 Gas wells.....	53,066	4,290	4,156	41	4,115
39 Dry holes.....	209,690	12,802	1,720	117	1,917
40 Service wells.....	5,928	(NA)	314		
41 Cost of casing, total ⁶.....do....	4,494	1,995	89	1	88
42 Oil wells.....	3,110	1,690	1	...	1
43 Gas wells.....	748	150	78	...	78
44 Dry holes.....	607	155	9	1	8
45 Service wells.....	29	(NA)	1	...	1
46 Cost of equipment for flowing and pumping and production derrick, total ⁷.....do....	2,820	1,153	2	1	1
47 Oil wells.....	2,588	1,059	1	1	...
48 Gas wells.....	227	80	1	...	1
49 Dry holes.....	5	14	...	...	...
50 Service wells.....	...	(NA)	...	...	...
51 Amount paid or due subcontractors for drilling and equipping wells, total.....do....	19,469	(NA)	88	...	88
52 Oil wells.....	11,448	(NA)	1	...	1
53 Gas wells.....	1,846	(NA)	56	...	56
54 Dry holes.....	6,035	(NA)	31	...	31
55 Service wells.....	140	(NA)	...	...	...
56 Wells recompleted					
57 Number.....	3,393	(NA)	65	28	37
58 Cost borne by drilling contractors in recompleting wells on contract.....\$1,000..	14,600	(NA)	(D)	(D)	(D)
59 Cost, excluding amount paid or due subcontractors.....do....	⁸ 14,284	(NA)	(D)	(D)	(D)
Amount paid or due subcontractors for recompleting wells.....do....	316	(NA)	...	...	...

See footnotes at end of table.

OIL AND GAS FIELD CONTRACT SERVICES

13D-49

AND EQUIPPING WELLS DRILLED ON CONTRACT IN THE UNITED STATES: 1954 AND 1939; AND BY GEOGRAPHIC DIVISIONS AND STATES: 1954

petroleum and natural gas industries. All wells reported by an establishment were classified in the principal State in which the establishment services)

East North Central					West North Central				
Total	Ohio	Indiana	Illinois	Michigan	Total	North Dakota	Nebraska	Kansas	Iowa, Missouri, and South Dakota
4,632	791	534	2,814	493	5,002	95	185	4,703	19
2,553	371	244	1,756	182	3,161	66	98	2,996	1
218	182	17	9	10	293	...	...	293	...
1,645	179	260	937	269	1,456	29	87	1,335	5
216	59	13	112	32	92	...	...	79	13
9,952	1,614	758	6,287	1,293	13,407	633	953	11,786	35
5,679	841	340	3,916	582	7,907	492	522	6,889	4
411	368	14	7	22	764	...	...	764	...
3,488	297	400	2,196	595	4,584	141	431	3,988	24
374	108	4	168	94	152	...	...	145	7
2,149	2,040	1,419	2,234	2,623	2,680	6,663	5,151	2,506	1,842
2,224	2,267	1,393	2,230	3,198	2,501	7,455	5,327	2,299	4,000
1,885	2,022	824	778	2,200	2,608	...	...	2,608	...
2,120	1,659	1,538	2,344	2,212	2,148	4,862	4,954	2,987	4,800
1,731	1,831	308	1,500	2,938	1,652	...	...	1,835	538
31,498	3,924	2,408	19,471	5,695	37,039	2,300	2,815	31,631	293
6.8	5.0	4.5	6.9	11.6	7.4	24.2	15.2	6.7	15.4
3.16	2.43	3.18	3.10	4.40	2.76	3.63	2.95	2.68	8.37
18,666	2,107	1,148	12,843	2,568	21,583	(D)	1,551	18,358	(D)
7.3	5.7	4.7	7.3	14.1	6.8	(D)	15.8	6.1	(D)
3.29	2.51	3.38	3.28	4.41	2.73	(D)	2.97	2.66	(D)
1,123	919	47	22	135	2,320	...	...	2,320	...
5.2	5.0	2.8	2.4	13.5	7.9	...	...	7.9	...
2.73	2.50	3.36	3.14	6.14	3.04	...	...	3.04	...
10,497	673	1,201	6,197	2,426	12,784	(D)	1,264	(D)	(D)
6.4	3.8	4.6	6.6	9.0	8.8	(D)	14.5	(D)	(D)
3.01	2.27	3.00	2.82	4.08	2.79	(D)	2.93	(D)	(D)
1,212	225	12	409	566	352	...	...	(D)	(D)
5.6	3.8	0.9	3.7	17.7	3.8	...	...	(D)	(D)
3.24	2.08	3.00	2.43	6.02	2.32	...	...	(D)	(D)
30,833	3,895	2,392	18,893	5,653	35,634	(D)	(D)	30,382	(D)
18,276	2,091	1,139	12,514	2,532	35,293	(D)	(D)	19,994	(D)
1,120	917	46	22	135	...	...	...	...	...
10,228	662	1,195	5,951	2,420	...	(D)	(D)	10,388	(D)
1,209	225	12	406	566	341	...	...	...	(D)
29,923	3,790	2,280	18,235	5,618	34,439	(D)	(D)	29,187	(D)
17,457	2,040	1,037	11,860	2,520	19,793	(D)	(D)	16,643	(D)
1,085	883	46	21	135	2,225	...	...	2,225	...
10,196	867	1,186	5,948	2,963	12,083	(D)	(D)	10,319	(D)
1,185	...	11	406	...	338	...	...	...	(D)
524	54	40	398	32	614	...	...	614	...
447	13	30	395	9	...	...	...	...	...
22	21	...	1	...	611	...	...	611	...
31	...	9	2	...	...	...	...	...	...
24	20	1	...	23	3	...	...	3	...
386	51	72	260	3	581	...	...	581	...
372	38	72	259	...	581	...	...	581	...
13	13	...	...	...	...	...	...	...	...
1	...	...	1	...	...	...	...	...	...
...
665	29	16	578	42	1,405	(D)	(D)	1,249	(D)
390	16	9	329	36	1,394	...	(D)	684	...
3	2	1	...	...	...	(D)	(D)	...	...
269	11	6	246	6	...	(D)	(D)	554	(D)
3	...	...	3	...	11	...	...	11	...
354	6	16	308	24	360	1	2	357	...
590	(D)	(D)	473	95	983	(D)	(D)	960	...
(D)	(D)	(D)	(D)	95	(D)	(D)	(D)	(D)	...
(D)	...	...	(D)	...	(D)	...	...	(D)	...

Table 5B.—NUMBER AND FOOTAGE OF OIL, GAS, DRY, AND SERVICE WELLS DRILLED AND COSTS BORNE BY DRILLING CONTRACTORS IN DRILLING

(Represents wells drilled on contract for others by establishments classified in the oil and gas field contract services industries and in the crude performed contract

Item	South Atlantic				East South Central			
	Total	Virginia	West Virginia	Maryland, Georgia, and Florida	Total	Kentucky	Mississippi	Tennessee and Alabama
1 Number of wells drilled, total ¹	542	33	489	20	1,621	1,303	278	40
2 Oil wells.....	56	14	42	...	697	587	102	8
3 Gas wells.....	395	14	377	4	208	182	23	3
4 Dry holes ²	61	5	40	16	617	438	153	26
5 Service wells ²	30	...	30	...	99	96	...	3
6 Footage drilled, total.....1,000 ft..	1,648	142	1,390	116	4,139	2,068	2,012	59
7 Oil wells.....do....	148	49	99	...	1,701	906	780	15
8 Gas wells.....do....	1,160	76	1,068	16	718	509	204	5
9 Dry holes.....do....	239	17	122	100	1,670	604	1,028	38
10 Service wells.....do....	101	...	101	...	50	49	...	1
11 Average footage drilled per well, all wells.....	3,041	4,303	2,843	5,800	2,553	1,587	7,237	1,475
12 Oil wells.....	2,643	3,500	2,357	...	2,440	1,543	7,647	1,875
13 Gas wells.....	2,937	5,429	2,833	4,000	3,452	2,797	8,870	1,667
14 Dry holes.....	3,918	3,400	3,050	6,250	2,707	1,379	6,719	1,462
15 Service wells.....	3,367	...	3,367	...	505	510	...	333
16 Costs borne by drilling contractors in drilling and equipping wells on contract, total ⁴.....\$1,000..	6,943	600	5,639	704	15,750	6,329	9,259	162
17 Per well.....do....	12.8	18.2	11.5	35.2	9.7	4.9	33.3	4.1
18 Per foot.....do....\$1..	4.21	4.23	4.06	6.07	3.81	3.06	4.60	2.75
19 Oil wells.....\$1,000..	557	(D)	(D)	...	6,951	2,688	4,188	75
20 Per well.....do....	9.9	(D)	(D)	...	10.0	4.6	41.1	9.3
21 Per foot.....do....\$1..	3.76	(D)	(D)	...	4.09	2.97	5.37	5.00
22 Gas wells.....\$1,000..	4,494	(D)	4,133	(D)	2,847	(D)	1,145	(D)
23 Per well.....do....	11.4	(D)	11.0	(D)	13.7	(D)	49.8	(D)
24 Per foot.....do....\$1..	3.87	(D)	3.87	(D)	3.97	(D)	5.61	(D)
25 Dry holes.....\$1,000..	1,302	(D)	(D)	(D)	5,830	1,823	3,926	81
26 Per well.....do....	21.3	(D)	(D)	(D)	9.4	4.2	25.7	3.1
27 Per foot.....do....\$1..	5.45	(D)	(D)	(D)	3.49	3.02	3.82	2.13
28 Service wells.....\$1,000..	590	...	590	...	122	(D)	...	(D)
29 Per well.....do....	19.7	...	19.7	...	1.2	(D)	...	(D)
30 Per foot.....do....\$1..	5.84	...	5.84	...	2.44	(D)	...	(D)
31 Cost, excluding amount paid or due subcontractors, total.....\$1,000..	6,857	575	5,578	704	15,514	6,180	9,208	126
32 Oil wells.....do....	...	...	...	...	6,861	2,653	4,167	41
33 Gas wells.....do....	6,267	575	4,988	704	2,772	...	5,041	(D)
34 Dry holes.....do....	...	...	...	...	5,760	3,527	...	79
35 Service wells.....do....	590	...	590	...	121	...	...	(D)
36 Cost of drilling, total ⁵.....do....	6,701	575	5,427	699	15,350	6,064	9,165	121
37 Oil wells.....do....	537	...	...	...	6,761	2,578	4,146	37
38 Gas wells.....do....	4,313	575	4,837	699	2,747	1,608	...	...
39 Dry holes.....do....	1,261	...	...	...	5,721	1,878	5,019	84
40 Service wells.....do....	590	...	590	...	121	...	...	...
41 Cost of casing, total ⁶.....do....	135	...	130	5	121	88	(D)	(D)
42 Oil wells.....do....	...	...	...	...	82	(D)	(D)	(D)
43 Gas wells.....do....	135	...	130	5	39	...	(D)	(D)
44 Dry holes.....do....	...	...	...	...	...	...	...	...
45 Service wells.....do....	...	...	...	...	...	...	...	...
46 Cost of equipment for flowing and pumping and production derrick, total ⁷.....do....	21	...	21	...	43	28	(D)	(D)
47 Oil wells.....do....	21	...	21	...	43	28	(D)	(D)
48 Gas wells.....do....	...	...	...	...	...	...	...	...
49 Dry holes.....do....	...	...	...	...	...	...	...	...
50 Service wells.....do....	...	...	...	...	...	...	...	...
51 Amount paid or due subcontractors for drilling and equipping wells, total.....do....	86	25	61	...	236	149	51	36
52 Oil wells.....do....	...	...	...	...	90	35	21	34
53 Gas wells.....do....	86	25	61	...	75	113	30	...
54 Dry holes.....do....	...	...	...	...	70	...	...	2
55 Service wells.....do....	...	...	...	...	1	1	...	...
56 Wells recompleted								
57 Number.....	7	...	7	...	230	163	65	2
58 Cost borne by drilling contractors in recompleting wells on contract.....\$1,000..	(D)	...	(D)	...	530	41	487	2
59 Cost, excluding amount paid or due subcontractors.....do....	(D)	...	(D)	...	527	41	484	2
Amount paid or due subcontractors for recompleting wells.....do....	...	...	...	...	3	...	3	...

(D) Withheld to avoid approximately disclosing figures for individual companies. ¹Represents wells drilled which were completed during 1954, and includes wells completed in 1954 although begun in 1953. ²Dry holes represent wells drilled and abandoned without commercial production during 1954. Service wells include gas-injection, water-injection, brine-disposal, and underground storage wells. The distinction between dry holes and service wells was not made uniformly by all contractors, hence, the combined figures for dry holes and service wells in a State are somewhat more significant than the separate figures for each class. ³Figures for Arkansas are included with those for Louisiana. ⁴Represents only the tangible costs specified below; respondents were asked to exclude taxes, interest on investment, overhead cost, etc.; and to exclude cost for work or equipment furnished by oil and gas companies and not covered by the receipts for contract work. Represents only costs as reported by the contractor who drilled the well. Excludes payments made directly to other types of contractors by operators of oil and gas field properties. ⁵Represents the cost of labor, supplies, water, fuel, and power used in such operations as: Moving on to location all equipment and supplies incidental to operations; excavating for and building

AND EQUIPPING WELLS DRILLED ON CONTRACT IN THE UNITED STATES: 1954 AND 1939; AND BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

petroleum and natural gas industries. All wells reported by an establishment were classified in the principal State in which the establishment services)

West South Central					Mountain						Pacific (California)	
Total	Arkansas	Louisiana	Oklahoma	Texas	Total	Montana	Wyoming	Colorado	New Mexico	Arizona and Utah		
26,937	236	3,432	7,849	15,420	3,531	297	935	1,346	918	35	1,974	1
17,140	135	2,419	5,120	9,466	1,899	198	615	549	528	9	1,461	2
1,314	1	226	269	818	303	12	5	22	263	1	51	3
7,638	99	749	1,896	4,894	1,294	86	299	759	125	25	447	4
845	1	38	564	242	35	1	16	16	2	...	15	5
114,225	839	21,372	23,567	68,447	16,751	1,268	5,052	6,175	4,121	135	8,994	6
71,574	457	14,032	15,455	41,630	9,305	851	3,439	2,391	2,586	38	6,386	7
7,082	(3)	³¹ 5,549	1,042	4,491	1,049	22	34	108	881	4	265	8
34,478	376	5,719	6,500	21,883	6,295	394	1,548	3,614	646	93	2,324	9
1,091	(3)	³⁷⁸	570	443	102	1	31	62	8	...	19	10
4,240	3,555	6,227	3,003	4,439	4,744	4,269	5,403	4,588	4,489	3,857	4,556	11
4,176	3,385	5,801	3,019	4,398	4,900	4,298	5,592	4,355	4,898	4,222	4,371	12
5,390	(3)	³⁶ 8,224	3,874	5,490	3,462	1,833	6,800	4,909	3,350	4,000	5,196	13
4,514	3,798	7,636	3,428	4,471	4,865	4,581	5,177	4,762	5,168	3,720	5,199	14
1,291	(3)	³² 0,000	1,011	1,831	2,914	1,000	1,938	3,875	4,000	...	1,267	15
482,241	2,413	112,095	85,449	282,284	78,060	7,514	26,006	18,580	24,544	1,416	57,033	16
17.9	10.2	32.7	10.9	18.3	22.1	25.3	27.8	13.8	26.7	40.5	28.9	17
4.22	2.88	5.24	3.63	4.12	4.66	5.93	5.15	3.01	5.96	10.49	6.34	18
306,555	1,401	72,349	55,163	177,642	42,135	(D)	15,466	6,805	14,215	(D)	40,162	19
17.9	10.4	29.9	10.8	18.8	22.2	(D)	25.1	12.4	26.9	(D)	27.5	20
4.28	3.08	5.16	3.57	4.27	4.53	(D)	4.50	2.85	5.50	(D)	6.29	21
33,067	(3)	³⁸ 4,447	4,717	19,903	6,190	80	(D)	(D)	(D)	(D)	1,555	22
25.2	(3)	^{337.2}	17.5	24.3	20.4	6.7	(D)	(D)	(D)	(D)	30.5	23
4.67	(3)	^{35.45}	4.53	4.43	5.90	3.64	(D)	(D)	(D)	(D)	5.87	24
139,515	983	30,908	24,273	83,351	29,448	2,349	10,126	11,143	5,068	762	15,201	25
18.3	9.9	41.3	12.8	17.0	22.8	27.3	33.9	14.7	40.5	30.5	34.0	26
4.05	2.61	5.40	3.73	3.81	4.68	5.96	6.54	3.08	7.85	8.19	6.54	27
3,104	(3)	³⁴²⁰	1,296	1,388	287	(D)	(D)	162	(D)	...	115	28
3.7	(3)	^{310.8}	2.3	5.7	8.2	(D)	(D)	10.1	(D)	...	7.7	29
2.85	(3)	^{35.38}	2.27	3.13	2.81	(D)	(D)	2.61	(D)	...	6.05	30
467,878	2,352	109,504	83,587	272,435	75,853	7,512	25,384	18,108	23,435	1,414	56,614	31
297,656	1,367	70,829	54,095	171,365	41,042	(D)	14,963	6,590	13,843	(D)	39,895	32
32,020	(3)	³⁸ 1,38	4,537	19,345	5,641	80	(D)	(D)	(D)	(D)	1,549	33
135,220	956	30,146	23,758	80,360	28,886	2,349	10,014	10,902	4,860	761	15,055	34
2,982	(3)	³⁴²⁰	1,197	1,365	284	(D)	(D)	(D)	(D)	...	115	35
464,252	2,208	108,852	83,122	270,070	74,717	7,488	24,954	17,982	22,879	1,414	56,578	36
294,752	1,228	70,292	53,660	169,572	40,289	(D)	14,533	6,496	13,631	(D)	39,877	37
31,714	(3)	³⁸ 0,94	4,525	19,095	5,293	80	(D)	(D)	(D)	(D)	1,533	38
134,805	951	30,075	23,741	80,038	28,851	2,342	10,014	10,890	4,844	761	15,053	39
2,981	(3)	³⁴²⁰	1,196	1,365	284	(D)	(D)	(D)	(D)	...	115	40
2,381	48	343	317	1,673	605	24	106	(D)	(D)	...	25	41
1,770	43	234	295	1,198	570	17	106	(D)	(D)	...	7	42
199	...	38	8	153	...	...	...	(D)	(D)	...	16	43
411	5	71	13	322	35	7	...	...	16	...	2	44
1	...	...	1	...	...	...	...	...	...	...	...	45
1,245	96	309	148	692	531	...	324	(D)	(D)	...	11	46
1,134	96	303	140	595	531	...	324	(D)	(D)	...	11	47
107	...	6	4	97	...	...	...	...	(D)	...	...	48
4	...	...	4	...	...	...	...	...	...	...	...	49
...	...	...	...	...	...	...	...	...	...	...	...	50
14,363	61	2,591	1,862	9,849	2,207	2	622	472	1,109	2	419	51
8,899	34	1,520	1,068	6,277	1,093	2	503	215	372	1	267	52
1,047	...	309	180	558	549	...	7	16	526	...	6	53
4,295	27	762	515	2,991	562	...	112	241	208	1	146	54
122	...	...	99	23	3	...	...	...	3	...	...	55
2,121	21	404	518	1,178	155	21	88	1	45	...	101	56
9,447	88	3,751	1,198	4,410	1,050	(D)	703	(D)	288	...	1,619	57
9,214	88	3,736	1,064	4,326	1,045	(D)	703	(D)	283	...	1,609	58
233	...	15	134	84	5	...	...	...	5	...	10	59

derrick foundations; digging slush pits; erecting and wiring derricks; building loading and pipe racks; laying fuel and water lines; rigging up; drilling hole; making straight-hole tests and surveys; coring; testing formations; mud conditioning; reaming; running casing, screen, and liner; cleaning out, bailing, and swabbing; fishing; repairing and maintaining rig and derrick; tearing down rig; dismantling derrick and racks; and moving equipment off location. It includes tool charges and rentals, but excludes the value of materials salvaged after use and the cost of the drilling derrick if it was left over well for production after completion. ⁶Includes the cost of delivering and installing equipment. Excludes the value of equipment that was salvaged and used again but includes the cost of salvaging. ⁷See footnote 6. Includes tubing, wellhead fittings, gas traps, flow tanks, etc., drilling derricks retained over well after completion, and special-production derricks. ⁸Represents \$14,278 thousand for drilling, \$3 thousand for casing, and \$3 thousand for equipment for flowing and pumping and for production derricks.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 6.—GENERAL STATISTICS FOR OIL AND GAS FIELD CONTRACT SERVICES ESTABLISHMENTS, CLASSIFIED BY EMPLOYMENT SIZE,
BY GEOGRAPHIC DIVISIONS AND STATES: 1954

(For explanation of column captions, see INTRODUCTION)

Industry, geographic division, State, and number of employees in establishment	Number of estab- lish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
DRILLING OIL AND GAS WELLS									
United States, total.....	2,869	972,745	623,967	62,145	5,831	133,216	264,797	39,515	125,077
0.....	31	438	317	...	...	1	2	5	14
1 - 4.....	719	19,641	15,977	1,798	51	3,078	5,004	122	5,299
5 - 9.....	591	39,602	30,431	3,889	173	7,097	12,369	659	6,555
10 - 19.....	650	119,136	89,049	8,530	511	16,642	31,564	2,294	28,444
20 - 49.....	564	241,018	155,873	15,999	1,294	33,563	66,239	7,775	30,602
50 - 99.....	199	202,009	123,022	12,553	1,161	27,725	55,937	8,724	18,761
100 - 249.....	92	195,024	112,106	11,227	1,376	25,431	52,434	10,175	17,079
250 - 499.....	16	76,397	47,809	4,411	523	9,622	20,002	4,058	7,151
500 - 999.....	6								
1,000 - 2,499.....	1	79,480	49,383	3,738	742	10,057	21,246	5,703	11,172
Middle Atlantic.....	165	10,362	7,893	1,045	47	2,355	3,650	169	1,156
0.....	2	16	16	...	...	1	1	...	...
1 - 4.....	104	1,594	1,257	207	4	343	483	18	92
5 - 9.....	30	1,459	1,162	194	7	391	606	8	138
10 - 19.....	17	1,736	1,217	220	4	428	705	6	158
20 - 49.....	8	1,979	1,624	202	18	525	746	56	403
50 - 99.....	4	3,578	2,617	222	14	667	1,109	81	365
New York.....	33	975	854	131	5	282	425	14	51
1 - 4.....	26	356	303	51	...	85	121	...	21
5 - 9.....	3	119	109	16	2	39	52	2	
10 - 19.....	3								
20 - 49.....	1	500	442	64	3	158	252	12	30
Pennsylvania.....	132	9,387	7,039	914	42	2,073	3,225	155	1,105
0.....	2	16	16	...	...	1	1	...	...
1 - 4.....	78	1,238	954	156	4	258	362	18	71
5 - 9.....	27	1,340	1,053	178	5	352	554	6	126
10 - 19.....	14								
20 - 49.....	7	3,215	2,399	358	19	795	1,199	50	543
50 - 99.....	4	3,578	2,617	222	14	667	1,109	81	365
East North Central.....	348	50,605	36,191	3,738	224	7,156	13,507	1,223	5,538
0.....	5	70	62	...	...	...	...	...	11
1 - 4.....	133	3,673	3,000	343	5	539	919	9	474
5 - 9.....	74	4,775	3,546	486	13	898	1,565	37	542
10 - 19.....	84	15,094	11,508	1,113	58	1,999	3,706	199	2,222
20 - 49.....	43	17,880	12,364	1,176	91	2,328	4,755	433	1,793
50 - 99.....	6	4,903	2,928	364	26	795	1,453	171	214
100 - 249.....	3	4,210	2,783	256	31	597	1,109	374	282
Ohio.....	111	5,878	4,537	742	30	1,383	2,313	89	837
0.....	2								
1 - 4.....	56	1,045	768	143	1	211	330	1	126
5 - 9.....	31	1,509	1,186	206	6	396	622	8	76
10 - 19.....	16	1,562	1,137	211	12	430	658	49	257
20 - 49.....	5								
50 - 99.....	1	1,762	1,446	182	11	346	703	31	378
Indiana.....	54	3,177	2,330	328	8	555	946	28	407
1 - 4.....	26	694	600	59	...	95	164	...	130
5 - 9.....	19	918	589	125	2	210	341	1	76
10 - 19.....	7								
20 - 49.....	2	1,565	1,141	144	6	250	441	27	201
Illinois.....	137	33,653	23,777	2,133	128	4,033	7,744	651	3,101
0.....	2								
1 - 4.....	32	1,510	1,322	96	1	158	281	1	132
5 - 9.....	15	1,631	1,190	95	3	177	368	2	188
10 - 19.....	50	10,420	7,865	662	37	1,139	2,200	134	1,232
20 - 49.....	32	13,971	9,555	859	61	1,686	3,402	265	1,274
50 - 99.....	4								
100 - 249.....	2	6,121	3,845	421	26	873	1,493	249	275
Michigan.....	46	7,897	5,547	535	58	1,185	2,504	455	1,193
0.....	1								
1 - 4.....	19	494	372	45	3	75	144	7	97
5 - 9.....	9	717	581	60	4	115	234	26	202
10 - 19.....	11								
20 - 49.....	4								
50 - 99.....	1	6,686	4,594	430	51	995	2,126	422	894
100 - 249.....	1								

Table 6.—GENERAL STATISTICS FOR OIL AND GAS FIELD CONTRACT SERVICES ESTABLISHMENTS, CLASSIFIED BY EMPLOYMENT SIZE, BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

(For explanation of column captions, see INTRODUCTION)

Industry, geographic division, State, and number of employees in establishment	Number of estab- lish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
DRILLING OIL AND GAS WELLS—Continued									
West North Central.....	304	60,154	39,884	3,743	348	7,527	15,072	1,855	6,576
0.....	3	20	14	...	...	...	1	...	2
1 - 4.....	90	2,751	2,143	233	10	387	654	8	263
5 - 9.....	76	4,377	3,319	476	22	776	1,344	72	416
10 - 19.....	71	14,292	9,700	883	77	1,865	3,514	340	1,195
20 - 49.....	52	24,254	14,991	1,329	163	2,791	5,893	909	2,637
50 - 99.....	9	8,817	6,084	517	53	1,137	2,336	340	1,569
100 - 249.....	3	5,643	3,633	305	23	571	1,330	186	494
North Dakota.....	8	3,673	2,472	149	15	384	857	118	243
1 - 4.....	1	3,673	2,472	149	15	384	857	118	243
5 - 9.....	2								
10 - 19.....	1								
20 - 49.....	4								
Nebraska.....	13	3,774	2,667	194	25	351	866	177	600
1 - 4.....	3	169	103	8	...	14	27	...	18
5 - 9.....	3	289	222	21	...	38	81	...	77
10 - 19.....	3	1,102	819	44	2	86	189	6	387
20 - 49.....	4	2,214	1,523	121	23	213	569	171	118
Kansas.....	278	51,939	34,353	3,349	301	6,665	13,091	1,511	5,610
0.....	3	20	14	...	...	...	1	...	2
1 - 4.....	85	2,431	1,918	220	10	365	612	8	235
5 - 9.....	69	3,753	2,971	429	21	670	1,119	65	231
10 - 19.....	66	12,960	8,683	814	75	1,722	3,213	334	804
20 - 49.....	43	18,315	11,050	1,064	119	2,200	4,480	578	2,275
50 - 99.....	9	8,817	6,084	517	53	1,137	2,336	340	1,569
100 - 249.....	3	5,643	3,633	305	23	571	1,330	186	494
Iowa, Missouri, and South Dakota.....	5	768	392	51	7	127	258	49	123
1 - 4.....	1	768	392	51	7	127	258	49	123
5 - 9.....	2								
10 - 19.....	1								
20 - 49.....	1								
South Atlantic.....	111	8,824	7,506	1,095	52	2,374	3,529	188	3,207
0.....	2	1,038	892	127	3	255	319	2	315
1 - 4.....	44								
5 - 9.....	39								
10 - 19.....	10								
20 - 49.....	12	3,429	2,677	389	25	856	1,439	115	1,420
50 - 99.....	4	1,343	1,044	219	5	461	662	36	187
Virginia.....	7	735	495	98	10	205	328	59	47
1 - 4.....	1	735	495	98	10	205	328	59	47
5 - 9.....	4								
10 - 19.....	...								
20 - 49.....	2								
West Virginia.....	97	7,192	6,449	937	29	2,033	2,952	75	2,254
1 - 4.....	41	927	804	115	3	230	286	2	315
5 - 9.....	35	2,614	2,615	317	17	698	948	25	1,268
10 - 19.....	9								
20 - 49.....	8								
50 - 99.....	4								
Maryland, Georgia, and Florida.....	7	897	562	60	13	136	249	54	906
0.....	2	897	562	60	13	136	249	54	906
1 - 4.....	2								
10 - 19.....	1								
20 - 49.....	2								
East South Central.....	169	20,604	13,397	1,898	104	3,481	6,046	540	1,653
0.....	6	105	67	...	...	...	...	...	...
1 - 4.....	69	1,495	1,014	180	4	323	414	3	46
5 - 9.....	39	2,062	1,511	251	6	470	643	8	306
10 - 19.....	32	5,016	3,390	404	25	755	1,292	102	245
20 - 49.....	17	4,879	3,552	437	32	791	1,349	169	354
50 - 99.....	3	2,235	1,409	246	4	443	943	28	39
100 - 249.....	3	4,812	2,454	380	33	699	1,405	230	663
Kentucky.....	140	9,735	6,570	1,040	51	1,865	2,776	208	422
0.....	5	3,189	2,259	379	8	704	929	5	162
1 - 4.....	62								
5 - 9.....	34								
10 - 19.....	25								
20 - 49.....	14	3,468	2,470	349	26	590	966	137	232

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(For explanation of column captions, see INTRODUCTION)

Industry, geographic division, State, and number of employees in establishment	Number of estab- lish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
DRILLING OIL AND GAS WELLS—Continued									
Mountain—Continued									
Wyoming.....	54	33,026	22,075	1,586	209	3,491	7,560	1,428	6,134
1 - 4.....	11	373	335	26	...	41	87	...	180
5 - 9.....	8	909	1,038	53	1	109	235	8	537
10 - 19.....	8	3,339	4,199	104	2	228	507	1	3,154
20 - 49.....	15	8,346	4,749	427	53	956	2,192	383	677
50 - 99.....	6	5,659	3,514	324	25	540	1,158	179	375
100 - 249.....	6	14,400	8,240	652	128	1,617	3,381	857	1,211
Colorado.....	44	22,328	11,465	1,504	100	2,764	5,498	584	1,887
1 - 4.....	9	492	388	24	4	41	87	9	185
5 - 9.....	7	815	572	45	4	101	220	16	260
10 - 19.....	10	2,432	1,347	117	14	283	624	69	461
20 - 49.....	10	4,968	2,742	263	21	581	1,159	158	363
50 - 99.....	3	5,716	2,758	168	15	471	1,134	41	407
100 - 249.....	2	7,905	3,658	887	42	1,287	2,274	291	211
250 - 499.....	2								
500 - 999.....	1								
New Mexico.....	60	29,966	18,724	1,859	148	3,905	8,502	1,029	3,289
0.....	2	355	411	27	...	44	88	5	297
1 - 4.....	12								
5 - 9.....	6								
10 - 19.....	11	3,767	3,324	189	12	327	745	44	1,643
20 - 49.....	15								
50 - 99.....	12								
100 - 249.....	1	19,138	11,118	1,191	105	2,522	5,669	730	611
250 - 499.....	1								
Arizona and Utah.....	11	2,235	1,052	137	11	296	741	57	236
1 - 4.....	6	332	241	15	3	42	83	10	105
5 - 9.....	1	1,903	811	122	8	254	658	47	131
10 - 19.....	2								
20 - 49.....	1								
50 - 99.....	1								
Pacific.....	99	72,955	47,068	4,691	546	8,633	22,653	4,423	5,861
1 - 4.....	14	671	595	33	2	66	168	8	127
5 - 9.....	14	1,068	871	93	4	140	315	6	188
10 - 19.....	21	3,698	3,001	272	23	468	1,171	155	1,058
20 - 49.....	22	9,408	6,083	652	49	1,151	2,960	389	1,001
50 - 99.....	13	14,939	9,484	899	98	1,786	4,626	982	538
100 - 249.....	11	26,415	16,473	1,603	304	2,952	8,197	2,071	2,085
250 - 499.....	4	16,756	10,561	1,139	66	2,070	5,216	812	864
BUILDING, REPAIRING, AND DISMANTLING RIGS AND DERRICKS									
United States, total.....	120	11,657	9,552	1,539	93	1,720	4,769	452	364
0.....	3	33	27	...	...	...	...	...	2
1 - 4.....	34	523	445	81	...	84	191	...	3
5 - 9.....	40	1,265	1,128	252	2	239	635	8	23
10 - 19.....	15	949	743	201	20	160	445	59	53
20 - 49.....	23	4,591	3,810	641	20	757	1,945	70	262
50 - 99.....	4	4,296	3,399	364	51	480	1,553	315	21
100 - 249.....	1								
Middle Atlantic.....	4	102	99	22	...	32	58	...	...
1 - 4.....	1	102	99	22	...	32	58	...	...
5 - 9.....	3								
East North Central.....	5	79	67	18	...	23	44	...	...
1 - 4.....	4	79	67	18	...	23	44	...	...
5 - 9.....	1								
West North Central.....	6	162	122	19	...	31	53	...	1
1 - 4.....	5	162	122	19	...	31	53	...	1
5 - 9.....	1								
South Atlantic.....	8	98	96	38	...	39	62	...	2
1 - 4.....	2	98	96	38	...	39	62	...	2
5 - 9.....	6								
South Central.....	82	8,801	7,247	1,241	67	1,261	3,641	275	254
1 - 4.....	17	262	223	36	...	35	89	...	3
5 - 9.....	26	756	705	166	1	119	383	4	10
10 - 19.....	15	949	743	201	20	160	445	59	53
20 - 49.....	20	6,834	5,576	838	46	947	2,724	212	188
50 - 99.....	4								

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 6.—GENERAL STATISTICS FOR OIL AND GAS FIELD CONTRACT SERVICES ESTABLISHMENTS, CLASSIFIED BY EMPLOYMENT SIZE, BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

(For explanation of column captions, see INTRODUCTION)

Industry, geographic division, State, and number of employees in establishment	Number of estab- lish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
BUILDING, REPAIRING, AND DISMANTLING RIGS AND DERRICKS—Continued									
South Central—Continued									
Louisiana.....	18	2,612	2,192	266	35	370	918	101	76
1 - 4.....	5	66	64	12	...	11	28	...	...
5 - 9.....	6	133	126	36	...	26	71	...	1
10 - 19.....	1	2,413	2,002	218	35	333	819	101	75
20 - 49.....	5								
50 - 99.....	1								
Oklahoma.....	10	953	757	125	7	146	332	41	47
1 - 4.....	4	953	757	125	7	146	332	41	47
5 - 9.....	1								
10 - 19.....	3								
20 - 49.....	2								
Texas.....	48	4,963	4,058	807	22	714	2,287	121	127
1 - 4.....	6	78	72	15	...	10	32	...	3
5 - 9.....	16	527	500	107	1	82	279	4	9
10 - 19.....	11	576	435	150	12	105	308	35	22
20 - 49.....	12	3,782	3,051	535	9	517	1,668	82	93
50 - 99.....	3								
Mississippi and Arkansas.....	6	273	240	43	3	31	104	12	4
1 - 4.....	2	273	240	43	3	31	104	12	4
5 - 9.....	3								
20 - 49.....	1								
Mountain.....	7	491	413	60	...	112	225	...	59
0.....	3	33	27	...	...	...	...	...	...
1 - 4.....	1	458	386	60	...	112	225	...	59
5 - 9.....	1								
20 - 49.....	2								
Pacific.....	8	1,924	1,508	141	26	222	686	177	48
1 - 4.....	4	78	73	10	...	12	28	...	...
5 - 9.....	2	1,846	1,435	131	26	210	658	177	48
20 - 49.....	1								
100 - 249.....	1								
OIL AND GAS FIELD CONTRACT SERVICES, N.E.C.									
United States, total.....	2,526	646,618	485,025	48,447	7,834	112,339	183,091	49,022	60,675
0.....	67	1,249	771	...	...	1	4	...	42
1 - 4.....	981	23,044	18,092	2,220	69	3,770	6,172	166	2,089
5 - 9.....	543	33,561	26,255	3,466	178	6,578	11,269	670	2,717
10 - 19.....	404	47,544	37,644	5,219	301	10,972	18,378	1,341	3,534
20 - 49.....	365	92,460	70,380	10,250	707	21,523	35,177	3,590	7,494
50 - 99.....	100	56,968	40,514	6,146	477	13,339	20,857	3,014	2,763
100 - 249.....	41	54,977	42,920	5,189	601	12,247	20,037	4,447	2,711
250 - 499.....	14	60,451	43,380	3,413	1,375	8,656	14,157	8,293	5,023
500 - 999.....	6	276,364	205,069	12,544	4,126	35,253	57,040	27,501	34,302
1,000 - 2,499.....	3								
2,500 and over.....	2								
Middle Atlantic.....	65	12,472	10,477	1,406	25	2,898	6,134	108	675
0.....	4	32	31	...	...	...	...	...	...
1 - 4.....	48	651	510	83	5	129	191	13	26
5 - 9.....	5	148	122	26	2	41	57	10	16
10 - 19.....	4	11,641	9,814	1,297	18	2,728	5,886	85	633
20 - 49.....	3								
1,000 - 2,499.....	1								
New York.....	16	254	192	23	2	40	64	12	15
0.....	2	254	192	23	2	40	64	12	15
1 - 4.....	14								
Pennsylvania.....	49	12,218	10,285	1,383	23	2,858	6,070	96	660
0.....	2	429	349	60	3	89	127	1	11
1 - 4.....	34								
5 - 9.....	5								
10 - 19.....	4								
20 - 49.....	3	11,641	9,814	1,297	18	2,728	5,886	85	633
1,000 - 2,499.....	1								

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 6.—GENERAL STATISTICS FOR OIL AND GAS FIELD CONTRACT SERVICES ESTABLISHMENTS, CLASSIFIED BY EMPLOYMENT SIZE,
BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

(For explanation of column captions, see INTRODUCTION)

Industry, geographic division, State, and number of employees in establishment	Number of estab- lish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
OIL AND GAS FIELD CONTRACT SERVICES, N.E.C.—Continued									
South Atlantic.....	37	1,467	1,063	177	11	345	555	43	69
0.....	3	20	18	...	...	...	...	...	...
1 - 4.....	22	274	214	49	...	66	103	1	(D)
5 - 9.....	7	372	179	37	3	71	93	7	4
10 - 19.....	4	801	652	91	8	208	359	35	(D)
20 - 49.....	1								(D)
West Virginia.....	34	1,314	920	160	11	304	480	43	(D)
0.....	2	280	218	48	...	65	102	1	(D)
1 - 4.....	21								(D)
5 - 9.....	7	372	179	37	3	71	93	7	4
10 - 19.....	3	662	523	75	8	168	285	35	55
20 - 49.....	1								
Virginia and Florida.....	3	153	143	17	...	41	75	...	(D)
0.....	1	153	143	17	...	41	75	...	(D)
1 - 4.....	1								
10 - 19.....	1								
East South Central.....	53	5,770	4,283	767	17	1,486	2,270	61	248
0.....	3	19	17	...	...	...	...	...	...
1 - 4.....	24	331	226	51	3	74	96	4	12
5 - 9.....	10	505	412	56	7	108	145	18	23
10 - 19.....	4	671	540	61	...	156	260	...	20
20 - 49.....	7	883	579	150	4	283	368	21	91
50 - 99.....	3	3,361	2,509	449	3	865	1,401	18	102
100 - 249.....	2								
Mississippi.....	21	2,874	2,200	416	8	808	1,097	26	129
1 - 4.....	6	146	99	13	3	27	38	4	...
5 - 9.....	4	187	157	25	1	55	76	1	...
10 - 19.....	3	2,541	1,944	378	4	726	983	21	129
20 - 49.....	6								
50 - 99.....	2								
Kentucky and Alabama.....	32	2,896	2,083	351	9	678	1,173	35	119
0.....	3	19	17	...	...	...	...	...	...
1 - 4.....	18	185	127	38	...	47	58	...	12
5 - 9.....	6	318	255	31	6	53	69	17	...
10 - 19.....	1	2,374	1,684	282	...	578	1,046	18	107
20 - 49.....	1								
50 - 99.....	1								
100 - 249.....	2								
West South Central.....	1,515	534,496	398,664	37,427	7,024	89,315	140,188	44,519	53,496
0.....	28	739	367	...	...	1	3	...	14
1 - 4.....	528	12,703	9,985	1,277	42	2,146	3,381	122	1,231
5 - 9.....	309	17,997	14,158	1,959	88	3,706	5,927	255	1,561
10 - 19.....	264	30,045	23,979	3,496	162	7,155	11,354	641	2,412
20 - 49.....	252	65,253	49,701	7,307	487	15,061	23,953	2,522	5,677
50 - 99.....	78	44,534	30,751	4,763	410	10,487	15,647	2,387	2,180
100 - 249.....	33	97,207	73,651	7,264	1,709	17,960	28,343	11,091	6,728
250 - 499.....	13								
500 - 999.....	6	266,018	196,072	11,361	4,126	32,799	51,580	27,501	33,693
1,000 - 2,499.....	2								
2,500 and over.....	2								
Arkansas.....	34	3,223	2,523	480	16	866	1,250	75	415
1 - 4.....	13	443	399	58	...	124	166	...	41
5 - 9.....	4	234	167	23	3	47	71	14	21
10 - 19.....	11	959	859	146	5	285	402	15	92
20 - 49.....	3	469	321	92	...	174	186	...	64
50 - 99.....	3	1,118	777	161	8	236	425	46	197
Louisiana.....	156	60,353	40,849	5,555	353	12,505	19,336	1,938	5,397
0.....	3	77	51	...	...	...	...	...	...
1 - 4.....	33	907	766	76	3	106	194	9	67
5 - 9.....	21	1,187	954	148	2	271	415	2	142
10 - 19.....	24	2,344	1,888	333	7	644	996	32	406
20 - 49.....	46	10,968	7,826	1,292	107	2,446	3,961	522	979
50 - 99.....	19	44,870	29,364	3,706	234	9,038	13,770	1,373	3,803
100 - 249.....	8								
500 - 999.....	2								

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(For explanation of column captions, see INTRODUCTION)

Industry, geographic division, State, and number of employees in establishment	Number of estab- lish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
OIL AND GAS FIELD CONTRACT SERVICES, N.E.C.—Continued									
West South Central—Continued									
Oklahoma.....	344	32,386	25,411	3,767	261	7,673	12,226	1,407	3,221
0.....	9	119	77	...	...	1	2	...	...
1 - 4.....	149	3,334	2,753	367	6	624	959	17	401
5 - 9.....	78	4,482	3,496	487	14	921	1,481	42	338
10 - 19.....	54	6,437	5,390	718	25	1,423	2,309	113	611
20 - 49.....	43	10,470	8,075	1,209	86	2,470	3,744	408	1,133
50 - 99.....	8	7,544	5,620	986	130	2,234	3,731	827	737
100 - 249.....	2								
500 - 999.....	1								
Texas.....	981	438,534	329,881	27,625	6,394	68,271	107,376	41,099	44,463
0.....	16	543	239	...	...	...	1	...	13
1 - 4.....	333	8,019	6,067	776	33	1,292	2,062	96	722
5 - 9.....	206	12,094	9,541	1,301	69	2,467	3,960	197	1,060
10 - 19.....	175	20,305	15,842	2,299	125	4,803	7,647	481	1,303
20 - 49.....	160	43,346	33,479	4,714	294	9,971	16,062	1,592	3,501
50 - 99.....	48	29,475	20,309	2,989	275	6,678	10,235	1,542	1,349
100 - 249.....	23	85,998	64,736	5,928	1,634	14,872	24,387	10,468	6,362
250 - 499.....	13								
500 - 999.....	3	17,798	11,294	1,368	287	3,336	5,513	2,017	1,018
1,000 - 2,499.....	2	220,956	168,374	8,250	3,677	24,852	37,509	24,706	29,135
2,500 and over.....	2								
Mountain.....	262	28,484	21,781	2,830	188	6,152	10,419	961	2,474
0.....	12	240	180	...	...	...	...	...	13
1 - 4.....	105	3,296	2,665	216	6	402	760	8	371
5 - 9.....	63	4,592	3,714	422	11	885	1,587	38	473
10 - 19.....	33	3,863	2,945	416	31	872	1,542	137	494
20 - 49.....	39	9,978	7,361	1,021	85	2,308	3,720	473	750
50 - 99.....	9	6,515	4,916	755	55	1,685	2,810	305	373
100 - 249.....	1								
Wyoming.....	89	9,390	6,901	823	61	1,812	3,300	292	729
0.....	4	113	85	...	...	...	...	...	3
1 - 4.....	41	1,106	855	87	1	153	275	...	133
5 - 9.....	15	1,204	930	96	3	188	407	15	150
10 - 19.....	13	1,747	1,279	152	18	360	637	106	146
20 - 49.....	14	5,220	3,752	488	39	1,111	1,981	171	297
50 - 99.....	2								
New Mexico.....	77	8,525	6,544	963	44	2,080	3,153	206	740
0.....	3	1,108	923	60	3	114	219	4	142
1 - 4.....	28								
5 - 9.....	20	2,416	1,902	263	4	537	869	9	130
10 - 19.....	8								
20 - 49.....	14	3,096	2,531	345	28	734	1,123	164	351
50 - 99.....	4	1,905	1,188	295	9	695	942	29	117
Montana and Colorado.....	90	9,995	7,825	973	82	2,095	3,693	460	942
0.....	4	74	56	...	...	...	...	...	7
1 - 4.....	35	1,079	882	66	1	126	252	1	88
5 - 9.....	26	1,574	1,298	166	6	306	600	17	232
10 - 19.....	11	1,385	1,132	139	11	330	560	28	292
20 - 49.....	10	2,443	1,782	253	18	620	987	153	139
50 - 99.....	3	3,440	2,675	349	46	713	1,294	276	184
100 - 249.....	1								
Arizona, Utah, and Nevada.....	6	574	511	71	1	165	273	3	63
0.....	1	574	511	71	1	165	273	3	63
1 - 4.....	1								
5 - 9.....	2								
10 - 19.....	1								
20 - 49.....	1								
Pacific.....	157	33,344	24,785	2,555	371	5,377	12,006	2,265	2,011
0.....	3	23	19	...	...	...	...	...	...
1 - 4.....	42	1,340	1,050	96	3	169	381	4	108
5 - 9.....	39	3,537	2,608	248	13	482	1,244	53	177
10 - 19.....	39	5,277	4,203	446	41	996	2,161	226	305
20 - 49.....	24	7,078	5,964	700	73	1,458	3,231	418	453
50 - 99.....	5	2,933	2,403	281	21	537	1,309	196	111
100 - 249.....	4	13,156	8,538	784	220	1,735	3,680	1,368	857
250 - 499.....	1								

(For explanation of column captions, see INTRODUCTION)

[illegible]

Table 7.—EMPLOYMENT IN SELECTED MONTHS IN THE OIL AND GAS FIELD CONTRACT SERVICES INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954

Industry, geographic division, and State	Average employment for the year ¹	Number of employees in selected months			
		March	May	August	November
DRILLING OIL AND GAS WELLS					
United States, total.....	67,976	66,900	69,394	67,689	67,921
Middle Atlantic.....	1,092	1,316	1,236	990	813
New York.....	136	158	153	144	92
Pennsylvania.....	956	1,158	1,083	846	721
East North Central.....	3,962	3,603	3,843	4,043	4,076
Ohio.....	772	660	710	774	741
Indiana.....	336	317	329	343	332
Illinois.....	2,261	2,081	2,187	2,289	2,441
Michigan.....	593	545	617	637	562
West North Central.....	4,091	3,931	4,082	4,138	4,118
North Dakota.....	164	155	168	166	177
Nebraska.....	219	217	233	154	272
Kansas.....	3,650	3,499	3,619	3,768	3,614
Iowa, Missouri, and South Dakota.....	58	60	62	50	55
South Atlantic.....	1,147	1,086	1,167	1,219	1,143
Virginia.....	108	115	114	100	104
West Virginia.....	966	898	973	1,043	979
Maryland, Georgia, and Florida.....	73	73	80	76	60
East South Central.....	2,002	1,892	1,989	2,008	2,050
Kentucky.....	1,091	1,021	1,094	1,110	1,085
Mississippi.....	884	841	871	882	935
Tennessee and Alabama.....	27	30	24	16	30
West South Central.....	44,180	43,911	45,307	43,887	44,170
Arkansas.....	262	230	250	267	283
Louisiana.....	9,046	8,633	9,224	9,120	9,218
Oklahoma.....	8,915	9,225	9,219	8,885	8,457
Texas.....	25,957	25,823	26,614	25,615	26,212
Mountain.....	6,265	5,722	6,526	6,335	6,415
Montana.....	711	583	740	773	747
Wyoming.....	1,795	1,689	1,802	1,920	1,761
Colorado.....	1,604	1,284	1,762	1,639	1,714
New Mexico.....	2,007	2,035	2,085	1,825	2,050
Arizona and Utah.....	148	131	137	178	143
Pacific.....	5,237	5,439	5,244	5,069	5,136
BUILDING, REPAIRING, AND DISMANTLING RIGS AND DERRICKS					
United States, total.....	1,632	1,692	1,611	1,525	1,658
Middle Atlantic.....	22	22	26	19	22
East North Central.....	18	17	19	19	15
West North Central.....	19	24	20	18	15
South Atlantic.....	38	28	37	45	39
South Central.....	1,308	1,369	1,290	1,189	1,345
Louisiana.....	301	335	310	223	327
Oklahoma.....	132	143	145	113	120
Texas.....	829	809	802	820	868
Mississippi and Arkansas.....	46	82	33	33	30
Mountain.....	60	54	49	79	61
Pacific.....	167	178	170	156	161
OIL AND GAS FIELD CONTRACT SERVICES, N.E.C.					
United States, total.....	56,281	55,390	56,865	56,817	55,614
Middle Atlantic.....	1,431	1,489	1,465	1,403	1,346
New York.....	25	22	22	28	25
Pennsylvania.....	1,406	1,467	1,443	1,375	1,321
East North Central.....	1,328	1,246	1,305	1,358	1,363
Ohio.....	68	66	65	66	66
Indiana.....	150	151	142	153	145
Illinois.....	995	910	993	1,012	1,049
Michigan.....	115	119	105	127	103
West North Central.....	2,155	2,128	2,214	2,156	2,112
North Dakota.....	309	289	317	326	303
Kansas.....	1,767	1,783	1,810	1,754	1,717
Missouri and Nebraska.....	79	56	87	76	92

See footnote at end of table.

Table 7.—EMPLOYMENT IN SELECTED MONTHS IN THE OIL AND GAS FIELD CONTRACT SERVICES INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

Industry, geographic division, and State	Average employment for the year ¹	Number of employees in selected months--Continued			
		March	May	August	November
OIL AND GAS FIELD CONTRACT SERVICES, N.E.C.--Continued					
South Atlantic.....	188	158	184	168	231
West Virginia.....	171	128	150	166	231
Virginia and Florida.....	17	30	34	2	...
East South Central.....	784	768	813	772	775
Mississippi.....	424	411	441	427	405
Kentucky and Alabama.....	360	357	372	345	370
West South Central.....	44,451	43,496	44,673	45,216	44,067
Arkansas.....	496	504	535	466	486
Louisiana.....	5,908	5,678	5,796	5,932	6,238
Oklahoma.....	4,028	4,162	4,206	4,107	3,831
Texas.....	34,019	33,152	34,136	34,711	33,512
Mountain.....	3,018	3,089	3,273	2,888	2,817
Wyoming.....	884	927	919	846	803
New Mexico.....	1,007	1,032	1,093	976	988
Montana and Colorado.....	1,055	1,009	1,117	1,054	1,014
Arizona, Utah, and Nevada.....	72	121	144	12	12
Pacific.....	2,926	3,016	2,938	2,856	2,903
California.....	2,922	3,014	2,933	2,850	2,899

¹Represents the sum of the average employment figures for the year as shown in the separate establishment reports. These are the averages shown in other tables of this report. Because of roundings, the sum of such average figures may differ slightly from the average of the specified monthly totals shown above.

Table 8.—GENERAL STATISTICS FOR ESTABLISHMENTS CLASSIFIED BY OUTPUT PER MAN-HOUR: 1954

(Such statistics were not compiled for these industries)

Table 9.—GENERAL STATISTICS FOR ESTABLISHMENTS CLASSIFIED BY RATIO OF WAGES AND SALARIES TO VALUE ADDED IN MINING: 1954

(Such statistics were not compiled for these industries)

Table 10.—HORSEPOWER OF POWER EQUIPMENT USED IN THE OIL AND GAS FIELD CONTRACT SERVICES INDUSTRIES,
BY INDUSTRY, GEOGRAPHIC DIVISION, STATE, AND PRINCIPAL KIND OF WORK PERFORMED: 1954

(For explanation of column captions, see INTRODUCTION)

Industry, geographic division, State, and principal kind of work performed	Aggregate horsepower per production worker	Aggregate horsepower (prime- movers and electric motors driven by purchased energy) (1,000 horsepower)	Prime movers (1,000 horsepower)				Electric motors (1,000 horsepower)		
			Total	Highway type	All other equipment		Total	Driven by purchased energy	Driven by energy generated at the establish- ment
					Driving generators	Not driving generators			
DRILLING OIL AND GAS WELLS									
United States, total.....	69	4,265	4,247	1,064	215	2,968	107	18	89
Geographic Division and State									
Middle Atlantic.....	70	73	73	27	5	41	1	...	1
New York.....	76	10	10	4	...	6	...	...	...
Pennsylvania.....	69	63	63	23	5	35	1	...	1
East North Central.....	50	187	186	64	5	117	1	1	...
Ohio.....	43	32	32	12	...	20	...	...	...
Indiana.....	46	15	15	7	1	7	...	...	...
Illinois.....	48	102	101	31	3	67	1	1	...
Michigan.....	71	38	38	14	1	23	...	...	...
West North Central.....	58	218	217	79	7	131	6	1	5
North Dakota.....	81	12	12	3	...	9	...	...	...
Nebraska.....	67	13	13	5	...	8	...	...	...
Kansas.....	56	188	187	69	7	111	6	1	5
Iowa, Missouri, and South Dakota.....	98	5	5	2	...	3	...	...	...
South Atlantic.....	53	58	57	21	1	35	1	1	...
Virginia.....	31	3	3	1	...	2	...	...	...
West Virginia.....	52	49	48	19	1	28	1	1	...
Maryland, Georgia, and Florida.....	100	6	6	1	...	5	...	...	...
East South Central.....	64	122	122	39	3	80	...	...	...
Kentucky.....	59	61	61	25	2	34	...	...	...
Mississippi.....	70	58	58	13	1	44	...	...	...
Tennessee and Alabama.....	111	3	3	1	...	2	...	...	...
West South Central.....	71	2,863	2,852	651	152	2,049	89	11	78
Arkansas.....	60	15	15	4	1	10	...	...	...
Louisiana.....	68	551	550	85	55	410	52	1	51
Oklahoma.....	65	528	526	145	18	363	4	2	2
Texas.....	75	1,769	1,761	417	78	1,266	33	8	25
Mountain.....	66	384	381	102	16	263	4	3	1
Montana.....	63	44	44	15	1	28	...	...	...
Wyoming.....	78	124	121	31	4	86	3	3	...
Colorado.....	48	72	72	20	2	50	1	...	1
New Mexico.....	71	132	132	32	9	91	...	...	...
Arizona and Utah.....	88	12	12	4	...	8	...	...	...
Pacific.....	77	360	359	81	26	252	5	1	4
BUILDING, REPAIRING, AND DISMANTLING RIGS AND DERRICKS									
United States, total.....	25	39	39	33	1	5	...	...	...
Geographic Division and State ¹									
West North Central.....	53	1	1	1	...	...	...	...	...
South Central.....	22	27	27	23	1	3	...	...	...
Louisiana.....	19	5	5	3	1	1	...	...	...
Oklahoma.....	40	5	5	4	...	1	...	...	...
Texas.....	21	17	17	16	...	1	...	...	...
Mountain.....	33	2	2	2	...	...	...	...	...
Pacific.....	64	9	9	7	...	2	...	...	...

See footnote at end of table.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 10.—HORSEPOWER OF POWER EQUIPMENT USED IN THE OIL AND GAS FIELD CONTRACT SERVICES INDUSTRIES, BY INDUSTRY, GEOGRAPHIC DIVISION, STATE, AND PRINCIPAL KIND OF WORK PERFORMED: 1954—Continued

Industry, geographic division, State, and principal kind of work performed	Aggregate horsepower per production worker	Aggregate horsepower (prime- movers and electric motors driven by purchased energy) (1,000 horsepower)	Prime movers (1,000 horsepower)				Electric motors (1,000 horsepower)		
			Total	Highway type	All other equipment		Total	Driven by purchased energy	Driven by energy generated at the establish- ment
					Driving generators	Not driving generators			
OIL AND GAS FIELD CONTRACT SERVICES, N.E.C.									
United States, total.....	78	3,772	3,748	2,825	57	866	31	24	7
Geographic Division and State									
Middle Atlantic.....	18	26	23	16	1	6	3	3	...
New York.....	130	3	3	2	...	1	...	...	...
Pennsylvania.....	17	23	20	14	1	5	3	3	...
East North Central.....	50	62	61	41	1	19	1	1	...
Ohio.....	47	3	3	2	...	1	...	...	...
Indiana.....	45	6	6	5	...	1	...	...	...
Illinois.....	46	43	42	27	1	14	1	1	...
Michigan.....	88	10	10	7	...	3	...	...	...
West North Central.....	75	153	153	116	2	35	...	...	...
North Dakota.....	77	22	22	21	1	...	...	...	...
Kansas.....	77	128	128	93	1	34	...	...	...
Missouri and Nebraska.....	38	3	3	2	...	1	...	...	...
South Atlantic.....	62	11	11	8	...	3	...	...	...
East South Central.....	43	33	33	28	1	4	...	...	...
Mississippi.....	43	18	18	15	1	2	...	...	...
Kentucky and Alabama.....	43	15	15	13	...	2	...	...	...
West South Central.....	82	3,086	3,069	2,299	48	722	22	17	5
Arkansas.....	67	32	32	21	...	11	...	...	...
Louisiana.....	102	565	563	509	8	46	3	2	1
Oklahoma.....	56	210	210	157	2	51	...	...	...
Texas.....	82	2,279	2,264	1,612	38	614	19	15	4
Mountain.....	77	219	219	180	3	36	2	...	2
Wyoming.....	91	75	75	57	...	18	...	...	...
New Mexico.....	92	89	89	76	2	11	2	...	2
Montana and Colorado.....	55	54	54	46	1	7	...	...	...
Arizona, Utah, and Nevada.....	14	1	1	1	...	...	...	...	...
Pacific.....	71	182	179	137	1	41	3	3	...
PRINCIPAL KIND OF WORK PERFORMED									
Geophysical exploration.....	94	890	886	830	6	50	4	4	...
Other exploration.....	90	45	45	39	2	4	2	...	2
Well surveying, well logging, and cementing wells.....	129	993	988	553	30	405	9	5	4
Drilling water wells.....	123	15	15	10	1	4	...	...	...
Excavating slush pits and cellars.....	109	63	61	37	1	23	2	2	...
Running, cutting, and pulling casing, tubes, and rods.....	63	341	340	235	5	100	1	1	...
Shooting wells.....	141	19	19	19	...	...	...	...	...
Perforating well casing.....	23	55	51	50	1	...	4	4	...
Acidizing and other chemical treatment of wells.....	198	329	329	315	...	14	...	...	...
Cleaning out, bailing out, and swabbing wells.....	65	365	364	230	6	128	1	1	...
Installing production equipment, such as wellhead fittings, pumps, and engines...	39	86	86	78	...	8	...	...	...
Erecting, cleaning, repairing, and dismantling lease tanks.....	48	44	44	38	...	6	...	...	...
Building board roads in oil and gas fields.....	57	17	17	11	...	6	...	...	...
Other kinds of work.....	45	510	503	380	5	118	8	7	1

¹Establishments in other geographic divisions reported less than 500 aggregate horsepower.

Table 11.—NUMBER OF POWER LOADING MACHINES, 1954 AND 1939, AND BY GEOGRAPHIC DIVISIONS: 1954

(Such statistics were not compiled for these industries)

Table 12.—SUPPLIES, FUELS, AND ELECTRIC ENERGY USED IN THE OIL AND GAS FIELD CONTRACT SERVICES INDUSTRIES,
BY GEOGRAPHIC DIVISIONS AND STATES: 1954

(For explanation of line captions, see INTRODUCTION)

Industry, geographic division, and State	Supplies used ¹ (\$1,000)	Fuels used					
		Total ² (million kwh equivalent)	Natural gas produced and used at same establishment (million cu. ft.)	Purchased fuels			
				Total		Coal	
				Million kwh equivalent	Cost (\$1,000)	Quantity (1,000 short tons)	Cost (\$1,000)
DRILLING OIL AND GAS WELLS							
United States, total.....	291,995	23,284	362	23,173	36,704	4	27
Middle Atlantic.....	2,260	127	7	125	325	(4)	2
Pennsylvania.....	2,169	115	7	113	289	(4)	2
East North Central.....	11,793	686	2	685	1,988	1	7
Ohio.....	1,294	101	...	101	176	(4)	2
Illinois.....	7,555	430	...	430	1,276	...	...
Michigan.....	2,139	106	2	105	390	...	...
West North Central.....	5,452	801	38	789	2,287	2	15
Kansas.....	13,036	725	33	715	2,043	2	15
South Atlantic.....	2,718	116	5	115	247	...	...
West Virginia.....	2,235	97	4	96	193	...	...
East South Central.....	5,677	624	204	561	918	...	...
Kentucky.....	2,349	208	204	145	432	...	...
Mississippi.....	3,290	413	...	413	472	...	...
West South Central.....	199,538	18,607	97	18,577	24,800	...	...
Louisiana.....	42,255	5,857	22	5,850	5,872	...	...
Oklahoma.....	34,223	3,312	75	3,289	4,122	...	...
Texas.....	122,286	9,395	...	9,395	14,666	...	...
Mountain.....	32,799	1,621	9	1,619	4,080	...	...
Montana.....	2,585	391	1	391	600	...	...
Wyoming.....	10,462	474	...	474	1,433	...	...
Colorado.....	8,877	300	8	298	1,029	...	...
New Mexico.....	9,862	434	...	434	935	...	...
Pacific (California).....	21,758	702	...	702	2,059	(4)	3
BUILDING, REPAIRING, AND DISMANTLING RIGS AND DERRICKS							
United States, total.....	1,524	84	...	84	308	1	5
Middle Atlantic.....	...	1	...	1	3	...	...
East North Central.....	9	2	...	2	3	...	...
West North Central.....	28	3	...	3	12	...	...
South Atlantic.....	2	(4)	...	(4)	1	...	...
South Central.....	1,114	66	...	66	239	1	5
Texas.....	643	40	...	40	153	1	5
Mountain.....	49	6	...	6	26	...	...
Pacific.....	322	6	...	6	24	...	...
OIL AND GAS FIELD CONTRACT SERVICES, N.E.C.							
United States, total.....	101,257	6,529	48	6,514	21,657	(4)	2
Middle Atlantic.....	1,834	50	...	50	105	...	...
Pennsylvania.....	1,779	47	...	47	96	...	...
East North Central.....	1,910	146	...	146	503	...	...
Illinois.....	1,527	118	...	118	389	...	...
West North Central.....	2,047	342	...	342	1,096	...	...
North Dakota.....	121	79	...	79	188	...	...
Kansas.....	1,876	258	...	258	887	...	...
South Atlantic.....	351	14	...	14	51	...	...
East South Central.....	1,018	91	...	91	341	...	...
West South Central.....	83,363	5,222	10	5,219	17,097	(4)	2
Arkansas.....	477	59	...	59	201	...	...
Louisiana.....	14,632	529	10	526	1,767	...	...
Oklahoma.....	4,349	402	...	402	1,430	...	...
Texas.....	63,905	4,232	...	4,232	13,699	(4)	2
Mountain.....	4,545	367	...	367	1,387	...	...
Wyoming.....	1,589	140	...	140	509	...	...
New Mexico.....	1,589	102	...	102	392	...	...
Montana and Colorado.....	1,337	117	...	117	453	...	...
Pacific.....	6,189	297	38	285	1,077	...	...

See footnotes at end of table.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 12.—SUPPLIES, FUELS, AND ELECTRIC ENERGY USED IN THE OIL AND GAS FIELD CONTRACT SERVICES INDUSTRIES,
BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

Industry, geographic division, and State	Fuels used—Continued					Electric energy purchased		Electric energy generated and used
	Purchased fuels—Continued							
	Fuel oils		Natural gas		Other fuels, cost	Quantity	Cost	
	Quantity (1,000 barrels)	Cost (\$1,000)	Quantity (million cu. ft.)	Cost (\$1,000)				
						(million kwh)	(\$1,000)	(million kwh)
DRILLING OIL AND GAS WELLS								
United States, total.....	32,108	310,705	47,339	6,029	19,943	18	320	113
Middle Atlantic.....	11	65	186	63	195	(4)	11	(4)
Pennsylvania.....	11	63	170	56	168	(4)	10	(4)
East North Central.....	129	731	556	104	1,146	1	28	1
Ohio.....	3	14	229	57	103	(4)	4	...
Illinois.....	89	497	303	40	739	1	22	1
Michigan.....	32	193	9	5	192	(4)	1	...
West North Central.....	184	966	474	52	1,254	1	21	1
Kansas.....	170	883	441	50	1,095	1	21	1
South Atlantic.....	9	42	194	47	158	(4)	6	...
West Virginia.....	2	10	189	45	138	(4)	5	...
East South Central.....	56	314	1,140	145	459	(4)	4	1
Kentucky.....	20	104	120	32	296	(4)	4	1
Mississippi.....	36	207	1,020	113	152	...	...	...
West South Central.....	1,275	6,118	42,468	5,345	13,337	12	187	91
Louisiana.....	457	2,382	15,207	1,926	1,564	2	27	22
Oklahoma.....	125	605	7,805	820	2,697	3	50	15
Texas.....	685	3,091	19,438	2,595	8,980	7	110	54
Mountain.....	245	1,429	1,881	165	2,486	2	29	4
Montana.....	68	398	766	47	155	...	...	1
Wyoming.....	91	517	318	32	884	2	22	1
Colorado.....	51	325	119	8	696	(4)	4	1
New Mexico.....	31	168	678	78	689	(4)	3	1
Pacific (California).....	199	1,040	440	108	908	2	34	15
BUILDING, REPAIRING, AND DISMANTLING RIGS AND DERRICKS								
United States, total.....	9	37	8	2	264	(4)	3	(4)
Middle Atlantic.....	...	...	...	...	3	...	...	...
East North Central.....	...	...	8	2	1	...	...	...
West North Central.....	...	...	...	...	12	...	...	...
South Atlantic.....	...	...	...	...	1	...	...	...
South Central.....	8	33	...	...	201	(4)	3	(4)
Texas.....	3	14	...	...	134	(4)	1	...
Mountain.....	...	...	...	...	26	...	...	...
Pacific.....	1	4	...	...	20	...	...	...
OIL AND GAS FIELD CONTRACT SERVICES, N.E.C.								
United States, total.....	5265	51,357	3,543	411	19,887	77	880	5
Middle Atlantic.....	2	13	113	46	46	7	83	...
Pennsylvania.....	2	12	109	46	38	7	83	...
East North Central.....	2	15	77	11	477	(4)	3	...
Illinois.....	2	10	75	11	368	(4)	3	...
West North Central.....	18	103	216	14	979	(4)	11	...
North Dakota.....	4	27	106	6	155	(4)	3	...
Kansas.....	14	76	110	8	803	(4)	8	...
South Atlantic.....	1	5	4	(4)	46	...	...	...
East South Central.....	(4)	3	22	1	337	(4)	3	...
West South Central.....	207	1,024	3,024	329	15,742	68	736	5
Arkansas.....	3	15	28	2	184	...	...	...
Louisiana.....	136	633	36	3	1,131	3	24	...
Oklahoma.....	13	66	132	7	1,357	(4)	7	...
Texas.....	55	310	2,828	317	13,070	65	705	5
Mountain.....	18	98	48	3	1,286	(4)	7	...
Wyoming.....	7	39	37	2	468	(4)	1	...
New Mexico.....	5	19	...	...	373	(4)	3	...
Montana and Colorado.....	6	40	11	1	412	(4)	3	...
Pacific.....	17	96	39	7	974	2	37	...

D Withheld to avoid approximately disclosing figures for individual companies. ¹See table 1, footnote 5. Includes such items as drill bits and reamers, drilling fluid materials, cement, lumber, pipe, parts for renewals and repairs, lubricants, and water purchased. ²Excludes fuels furnished without charge by oil or gas companies for whom work was performed. ³Includes 90,000 barrels, at a cost of \$351,000, for residual fuel oil, 44,000 barrels, at a cost of \$198,000 for combined figures for distillate and residual fuel oil, and 301,000 barrels, at a cost of \$1,400,000 for fuel oil for which the type was not specified. ⁴See table 1, footnote 6. ⁵Includes 31,000 barrels, at a cost of \$180,000 for establishments reporting residual fuel oil, combined figures for distillate and residual fuel oil, or not specifying the type of fuel oil.

Table 13.—WATER USE IN THE OIL AND GAS FIELD CONTRACT SERVICES INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954

(For explanation of column captions, see INTRODUCTION)

Industry, geographic division, and State	Number of produc- tion and develop- ment workers	Value added in mining services (\$1,000)	Water intake					Water used for flooding included in total intake (million gallons)		
			Total			Fresh water (million gallons)	Brackish water (million gallons)	Total	Fresh water	Brackish water
			Million gallons	Million gallons per produc- tion worker	Gallons per dollar value added					
DRILLING OIL AND GAS WELLS										
United States, total.....	62,145	623,967	8,313	0.13	13	7,741	572	81	63	18
Geographic Division and State										
Middle Atlantic.....	1,045	7,893	230	0.22	29	230	...	...	...	...
New York.....	131	854	9	0.07	11	9	...	...	...	...
Pennsylvania.....	914	7,039	221	0.24	31	221	...	...	...	...
East North Central.....	3,738	36,191	195	0.05	5	186	9	1	1	...
Ohio.....	742	4,537	23	0.03	5	20	3	1	1	...
Indiana.....	328	2,330	4	0.01	2	4	...	...	...	...
Illinois.....	2,133	23,777	119	0.06	5	118	1	...	...	...
Michigan.....	535	5,547	49	0.09	9	44	5	...	...	...
West North Central.....	3,743	39,884	502	0.13	13	492	10	5	2	3
North Dakota.....	149	2,472	138	0.93	56	138	...	...	...	...
Nebraska.....	194	2,667	31	0.16	12	31	...	...	...	...
Kansas.....	3,349	34,353	333	0.10	10	323	10	5	2	3
Iowa, Missouri, and South Dakota....	51	392	...	...	...	...	...	...	...	...
South Atlantic.....	1,095	7,506	24	0.02	3	24	...	...	...	...
Virginia.....	98	495	...	...	...	...	...	...	...	...
West Virginia.....	937	6,449	22	0.02	3	22	...	...	...	...
Maryland, Georgia, and Florida.....	60	562	2	0.03	4	2	...	...	...	...
East South Central.....	1,898	13,397	63	0.03	5	57	6	...	...	...
Kentucky.....	1,040	6,570	37	0.04	6	37	...	...	...	...
Mississippi.....	831	6,672	25	0.03	4	19	6	...	...	...
Tennessee and Alabama.....	27	155	1	0.04	6	1	...	...	...	...
West South Central.....	40,155	412,554	6,534	0.16	16	5,993	541	74	59	15
Arkansas.....	249	2,301	19	0.08	8	19	...	...	...	...
Louisiana.....	8,079	96,696	1,275	0.16	13	1,164	111	8	8	...
Oklahoma.....	8,170	72,932	814	0.10	11	810	4	24	24	...
Texas.....	23,657	240,625	4,426	0.19	18	4,000	426	42	27	15
Mountain.....	5,780	59,474	552	0.10	9	547	5	...	...	...
Montana.....	694	6,158	58	0.08	9	58	...	...	...	...
Wyoming.....	1,586	22,075	140	0.09	6	135	5	...	...	...
Colorado.....	1,504	11,465	186	0.12	16	186	...	...	...	...
New Mexico.....	1,859	18,724	167	0.09	9	167	...	...	...	...
Arizona and Utah.....	137	1,052	1	0.01	1	1	...	...	...	...
Pacific.....	4,691	47,068	213	0.05	5	212	1	1	1	...
BUILDING, REPAIRING, AND DISMANTLING RIGS AND DERRICKS										
United States.....	1,539	9,552	21	0.01	2	21	...	...	...	...
Geographic Division										
South Central.....	1,241	7,247	21	0.02	3	21	..	...	...	...
OIL AND GAS FIELD CONTRACT SERVICES, N.E.C.										
United States.....	48,447	485,025	483	0.01	1	348	135	131	11	120
Geographic Division and State										
Middle Atlantic.....	1,406	10,477	4	(¹)	(¹)	4	...	3	3	...
East North Central.....	1,250	8,448	3	(¹)	(¹)	3	...	...	...	...
Indiana.....	133	1,034	1	0.01	1	1	...	...	...	...
Illinois.....	940	6,325	2	(¹)	(¹)	2	...	...	...	...
West North Central.....	2,035	15,524	21	0.01	1	17	4	...	..	...
North Dakota.....	284	3,030	13	0.05	4	13	...	...	...	...
Kansas.....	1,672	11,932	8	(¹)	1	4	4	...	...	...
South Atlantic.....	177	1,063	...	...	...	...	...	...	...	...
East South Central.....	767	4,283	13	0.02	3	13	...	...	...	...
West South Central.....	37,427	398,664	421	0.01	1	290	131	127	7	120
Louisiana.....	5,555	40,849	32	0.01	1	32	...	4	4	...
Oklahoma.....	3,767	25,411	46	0.01	2	44	2	4	2	2
Texas.....	27,625	329,881	343	0.01	1	214	129	119	1	118
Mountain.....	2,830	21,781	17	0.01	1	17	...	1	1	...
Wyoming.....	823	6,901	8	0.01	1	8	...	...	..	...
New Mexico.....	963	6,544	1	(¹)	(¹)	1	...	...	...	...
Montana and Colorado.....	973	7,825	8	0.01	1	8	...	1	1	...
Pacific.....	2,555	24,785	4	(¹)	(¹)	4	...	...	...	...

See footnote at end of table.

Table 13.—WATER USE IN THE OIL AND GAS FIELD CONTRACT SERVICES INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

Industry, geographic division, and State	Water discharged, except water used for flooding (million gallons)			Percent of total water intake by principal source							
	Total	Fresh water	Brackish water	Public water systems	Company surface water systems	Company ground water systems	Combined public water and company surface water systems	Combined public water and company ground water systems	Combined company surface and ground water systems	Combined public water and company surface water systems	Not specified
DRILLING OIL AND GAS WELLS											
United States, total.....	679	231	448	6	17	43	(¹)	(¹)	4	3	27
Geographic Division and State											
Middle Atlantic.....	...	...	...	...	9	...	...	...	...	...	91
New York.....	...	...	...	...	100	...	...	...	...	...	...
Pennsylvania.....	...	...	...	...	5	...	...	...	...	...	95
East North Central.....	10	8	2	7	38	9	...	...	14	...	32
Ohio.....	1	1	...	...	50	...	...	...	10	...	40
Indiana.....	1	1	...	25	25	...	...	...	...	...	50
Illinois.....	1	1	...	10	46	2	...	...	7	...	35
Michigan.....	7	5	2	...	14	30	...	...	27	...	29
West North Central.....	9	8	1	20	14	13	...	2	1	1	49
North Dakota.....	8	8	...	...	...	9	...	...	...	...	91
Nebraska.....	...	...	...	71	...	10	...	...	...	...	19
Kansas.....	1	...	1	23	22	16	...	3	1	2	33
Iowa, Missouri, and South Dakota....	...	...	...	...	...	...	...	...	...	...	...
South Atlantic.....	...	...	...	...	67	...	...	...	...	...	33
Virginia.....	...	...	...	...	...	...	...	...	...	...	...
West Virginia.....	...	...	...	...	73	...	...	...	...	...	27
Maryland, Georgia, and Florida.....	...	...	...	...	...	...	...	...	...	...	100
East South Central.....	5	5	...	...	2	96	...	...	...	...	2
Kentucky.....	5	5	...	...	41	14	...	...	...	...	45
Mississippi.....	...	...	...	...	1	98	...	...	...	...	1
Tennessee and Alabama.....	...	...	...	...	100	...	...	...	...	...	...
West South Central.....	650	205	445	5	18	42	(¹)	(¹)	6	4	25
Arkansas.....	8	8	...	...	58	...	...	...	42	...	...
Louisiana.....	37	8	28	2	7	20	...	...	14	16	41
Oklahoma.....	57	41	16	5	39	18	1	...	2	4	31
Texas.....	548	147	401	6	17	52	1	1	4	1	18
Mountain.....	5	5	...	14	33	28	...	...	4	2	19
Montana.....	...	...	...	2	72	7	...	...	...	...	19
Wyoming.....	3	3	...	7	64	...	...	...	7	1	21
Colorado.....	...	...	...	10	19	56	...	...	6	...	9
New Mexico.....	2	2	...	29	10	28	...	...	1	5	27
Arizona and Utah.....	...	...	...	...	...	...	...	...	...	...	100
Pacific.....	...	...	...	(¹)	(¹)	2	...	...	...	...	98
BUILDING, REPAIRING, AND DISMANTLING RIGS AND DERRICKS											
United States.....	20	...	20	100	...	...	...	...	...	...	...
Geographic Division											
South Central.....	20	...	20	100	...	...	...	...	...	...	...
OIL AND GAS FIELD CONTRACT SERVICES, N.E.C.											
United States.....	2,422	218	2,204	13	12	48	(¹)	(¹)	2	...	25
Geographic Division and State											
Middle Atlantic.....	...	...	...	...	...	100	...	...	...	...	...
East North Central.....	2	2	...	...	100	...	...	...	...	...	...
Indiana.....	...	...	...	...	100	...	...	...	...	...	...
Illinois.....	2	2	...	...	100	...	...	...	...	...	...
West North Central.....	1	1	...	6	...	12	...	...	...	...	82
North Dakota.....	...	...	...	...	...	...	...	...	...	...	100
Kansas.....	1	1	...	25	...	50	...	...	...	...	25
South Atlantic.....	...	...	...	...	...	...	...	...	...	...	...
East South Central.....	...	...	...	61	...	...	...	...	...	...	39
West South Central.....	910	209	701	23	21	2	(¹)	1	5	...	48
Louisiana.....	...	...	...	25	13	...	...	...	...	...	62
Oklahoma.....	4	2	2	11	79	...	2	...	...	...	8
Texas.....	906	207	699	25	11	2	...	1	7	...	54
Mountain.....	6	6	...	47	6	...	6	...	...	...	41
Wyoming.....	6	6	...	88	12	...	...	...	...	...	...
New Mexico.....	...	...	...	100	...	...	...	...	...	...	...
Montana and Colorado.....	...	...	...	...	...	...	12	...	...	...	88
Pacific.....	1,503	...	1,503	50	25	...	...	...	...	...	25

¹See table 1, footnote 6.

**NONMETALLIC MINERALS (EXCEPT FUELS)
MINING**

14A-1

Nonmetallic Minerals (Except Fuels) Mining

This report shows 1954 Census of Mineral Industries statistics for industries included in Major Group 14, Nonmetallic Minerals (Except Fuels) Mining, which comprises establishments primarily engaged in producing nonmetallic minerals (except fuels), or in developing such mines, or exploring for such minerals. The report consists of four tables which present (1) comparative statistics for nonmetallic mineral mining operations for Census years from 1880 through 1954; (2) detailed statistics by industry for 1954 and selected comparative statistics by industry for 1954 and 1939; (3) value of shipments and number of employees for all nonmetallic minerals (except fuels) mining by State, and number of establishments by industry within State for 1954; and (4) number of establishments by employment size within industry for 1954. More complete statistics for each industry and a description of the types of establishments classified in each are provided in the following separate reports:

Report	Industries covered
MI-14C - Dimension Stone	1412 - Dimension Limestone
	1413 - Dimension Granite
	1414 - Dimension Slate
	1415 - Dimension Marble
	1416 - Dimension Trap Rock
	1417 - Dimension Sandstone
	1419 - Dimension Stone, N.E.C.
MI-14D - Crushed and Broken Stone	1422 - Crushed and Broken Limestone
	1423 - Crushed and Broken Granite
	1424 - Crushed and Broken Slate
	1425 - Crushed and Broken Marble
	1426 - Crushed and Broken Trap Rock
	1427 - Crushed and Broken Sandstone
	1429 - Crushed and Broken Stone, N.E.C.
MI-14E - Sand and Gravel	1442 - Sand and Gravel
MI-14F - Clay, Ceramic, and Refractory Minerals	1452 - Bentonite
	1453 - Fire Clay
	1454 - Fuller's Earth
	1455 - Kaolin and Ball Clay
	1456 - Feldspar
	1457 - Magnesite and Brucite
	1459 - Clay, Ceramic, and Refractory Minerals, N.E.C.
MI-14G - Natural Abrasives, Except Sand	1462 - Natural Abrasive Stones
	1469 - Natural Abrasives, Except Sand, N.E.C.
MI-14H - Chemical and Fertilizer Mineral Mining	1472 - Barite
	1473 - Fluorspar
	1474 - Potash, Soda, and Borate Minerals
	1475 - Phosphate Rock
	1476 - Rock Salt
	1477 - Sulfur
	1479 - Chemical and Fertilizer Mineral Mining, N.E.C.
MI-14I - Nonmetallic Minerals (Except Fuels) Contract Services	1481 - Nonmetallic Minerals (Except Fuels) Contract Services
MI-14J - Miscellaneous Nonmetallic Minerals (Except Fuels)	1492 - Gypsum
	1493 - Mica
	1494 - Native Asphalt and Bitumens
	1495 - Pumice and Pumicite
	1496 - Talc, Soapstone, and Pyrophyllite
	1497 - Vermiculite
	1498 - Peat
	1499 - Nonmetallic Minerals, N.E.C.

A more detailed summary report is also provided for the 14 stone industries in the report MI-14B - Stone.

This Major Group includes certain well and brine operations and primary preparation plants, such as those engaged in crushing, grinding, washing, or other concentration, except as indicated below. However, the manufacture of cement, lime, brick and other structural clay products; and establishments primarily engaged in grinding, pulverizing, or otherwise treating certain earths, rocks, and minerals not in direct association with mines; are classified in the manufacturing industries in Major Group 32, Stone, Clay, and Glass Products. All dimension stone quarries operated with associated dressing plants are classified in the manufacturing industry 3281, Cut Stone and Stone Products.

As part of the 1954 Census of Manufactures, selected separate data were collected on mine or quarry operations at cement, lime, clay products, and gypsum products plants. For dimension stone quarries operated with dressing plants, which are classified in the manufactures census, complete reports for the quarry and dressing plant comparable to those for the minerals census were obtained. The statistics for such mineral operations which are included in the Census of Manufactures statistics are also summarized in this report. Moreover, it is necessary to include all, or part, of these statistics to provide figures comparable to those for earlier census years.

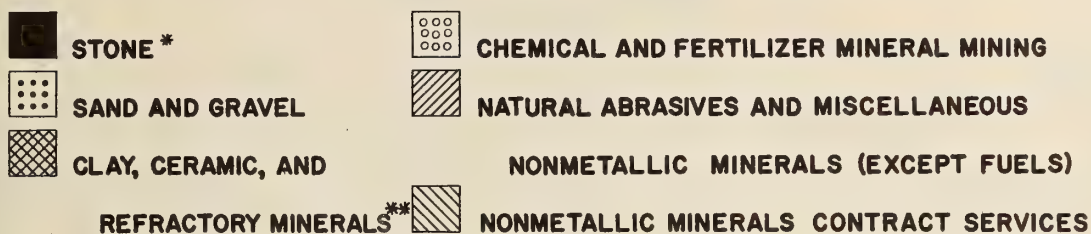
The combined 1954 value of shipments of all establishments classified in Major Group 14 was \$1,582 million. The 1954 value of mineral products produced and used in the same establishment or shipped by mines and quarries included in the manufactures census was approximately \$241 million. Hence, the approximate total value of products of all nonmetallic minerals (except fuels) operations in 1954 was \$1,823 million. For establishments classified in Major Group 14, sand and gravel establishments shipped products valued at \$466 million; crushed and broken limestone establishments, \$329 million; sulfur establishments, \$141 million; phosphate rock, \$118 million; and potash, soda, and borate minerals, \$108 million. These five industries accounted for shipments of \$1,162 million or about 73 percent of the total value of shipments for this major group. The value of shipments figures in this report contain some duplication since they include the value of minerals sold or transferred to other establishments in the same industries for preparation. The extent of this duplication for individual industries is shown in the separate industry bulletins. For the group as a whole, the value of minerals received for preparation was \$43 million and net shipments for this group in 1954 amounted to \$1,539 million.

The report forms used by the Bureau of the Census for the following industries in the nonmetallic minerals (except fuels) mining group also provided information required by the Bureau of Mines for its annual statistics on certain nonmetallic minerals:

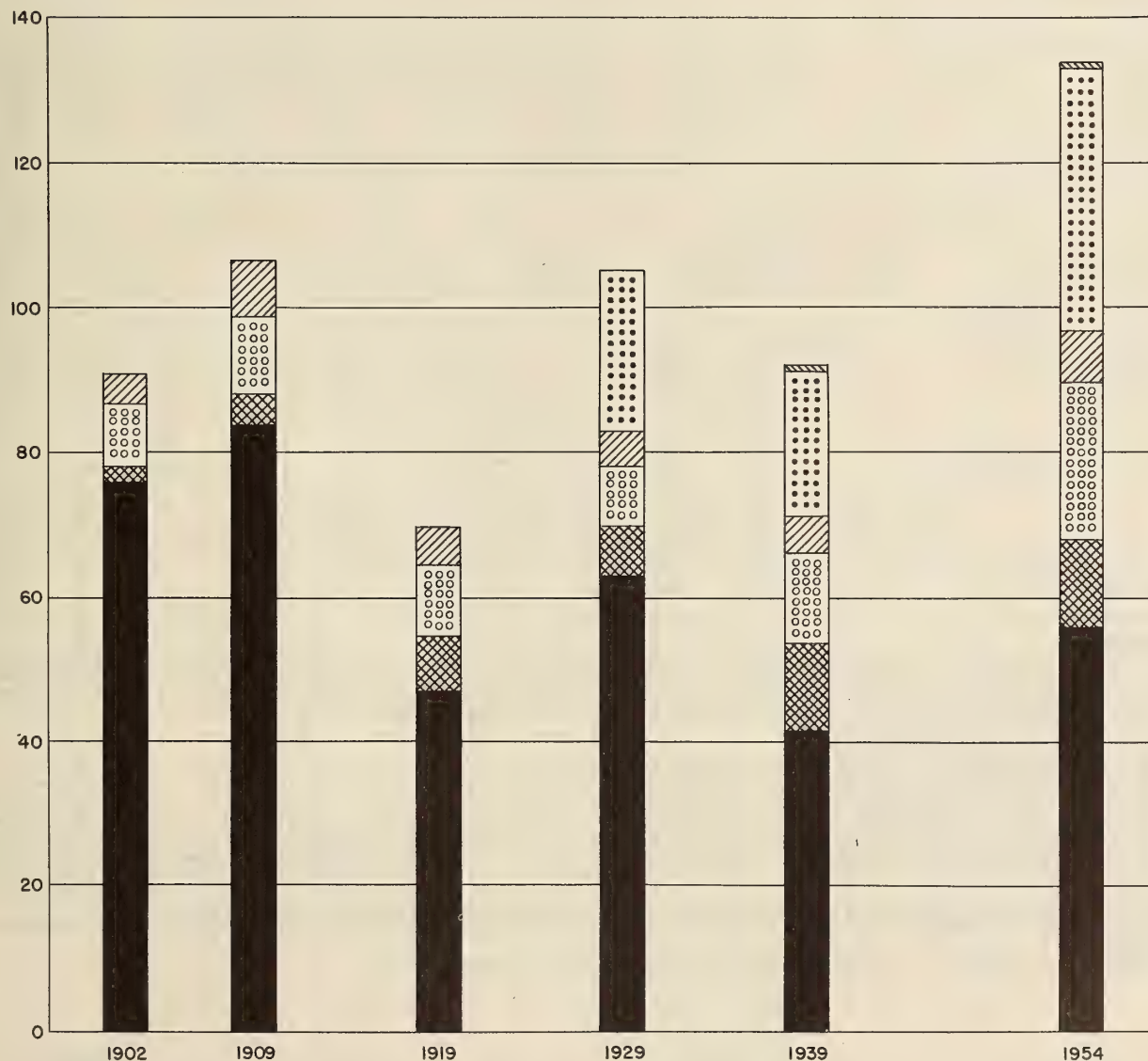
Industry	Minerals covered jointly
1442	Sand and Gravel
1456	Feldspar
1469(part)	Quartz
1474	Potash, Soda, and Borate Minerals
1477	Sulfur
1479(part)	Pyrites; Recovered Elemental Sulfur
1493	Mica
1494	Native Asphalt and Bitumens
1498	Peat
1499(part)	Graphite

The Bureau of Mines figures for these and other industries in Major Group 14 are, in general, comparable with those shown in this report. However, there are some differences between the figures compiled for certain minerals by the two agencies. The reasons for these differences for the individual products are discussed in the separate industry reports.

NONMETALLIC MINERALS (EXCEPT FUELS) MINING EMPLOYMENT IN THE UNITED STATES: 1902-1954



THOUSANDS
OF
EMPLOYEES



* For 1939, excludes dimension stone dressing plants at quarries. For 1919 and 1909, excludes stone quarries operated as part of cement and lime plants.

** Prior to 1939, excludes common clay and shale pits.

MINERAL INDUSTRIES--INDUSTRY STATISTICS

Table 1.—COMPARATIVE STATISTICS FOR NONMETALLIC MINERALS (EXCEPT FUELS) MINING OPERATIONS IN THE UNITED STATES: 1954, 1939, 1929, 1919, 1909, 1902, 1889, and 1880

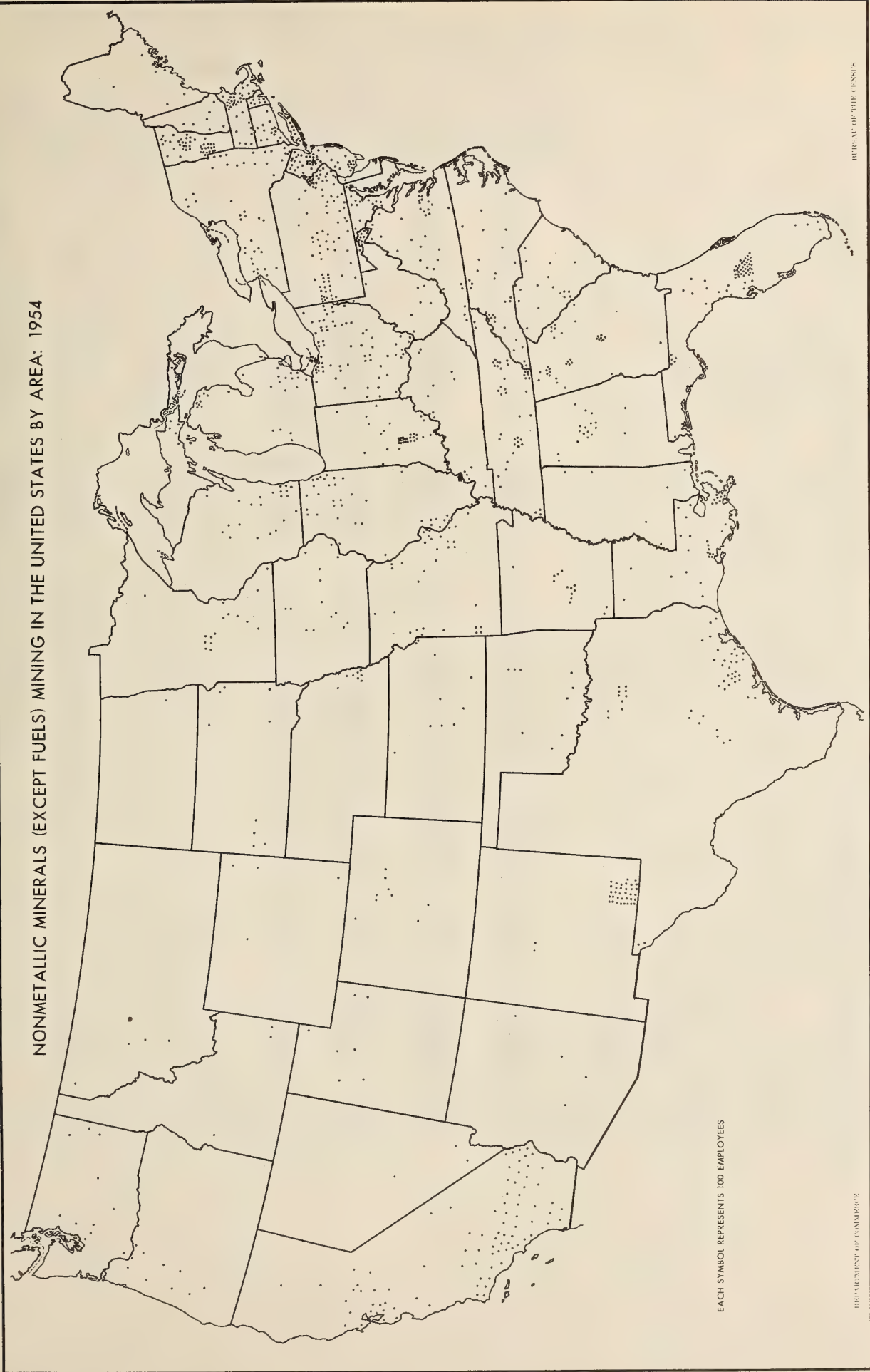
(For explanation of line captions and for statement on the minimum size of establishments included for each year, see INTRODUCTION. For all years prior to 1939, excludes contract service operations)

Item	Comparative statistics for all operations			Comparative statistics excluding sand, gravel, common clay, and shale operations, and crushed stone quarries operated as part of cement, lime, and other manufacturing and wholesale trade establishments							
	1954	1939 ¹	1929 ²	1954	1939	1929 ³	1919	1909 ⁴	1902 ⁵	1889	1880
Number of operating companies.....	7,571	4,127	(NA)	5,294	2,160	(NA)	(NA)	64,865	68,736	(NA)	(NA)
Number of establishments.....	9,291	(NA)	4,004	4,303	(NA)	2,694	2,707	4,885	(NA)	(NA)	(NA)
Number of mines and quarries.....	9,273	5,097	4,557	4,267	2,649	2,980	2,876	6,105	22,609	(NA)	1,613
Number of preparation plants.....	6,415	3,459	(NA)	3,106	1,861	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Value of shipments ⁷.....\$1,000..	1,822,906	323,043	407,461	1,224,293	207,412	263,982	165,339	123,608	87,511	59,228	20,310
Value added in mining.....do....	1,375,622	255,702	318,737	918,727	164,312	206,896	120,283	103,615	74,175	50,596	(NA)
Number of persons engaged, total.....	140,417	92,583	107,844	90,450	61,800	75,515	71,603	108,923	92,220	90,171	43,356
Production and development workers.....	116,561	81,306	94,808	76,051	54,614	66,714	63,968	97,797	85,566	85,256	43,356
All other employees.....	17,127	9,113	11,473	11,194	5,929	7,506	5,825	6,348	6,654	4,915	(NA)
Proprietors and firm members.....	6,729	2,164	1,563	3,205	1,257	1,295	1,810	4,778	(NA)	(NA)	(NA)
Performing manual labor.....	3,688	819	(NA)	1,775	521	(NA)	543	2,066	(NA)	(NA)	(NA)
Man-hours worked by production and development workers.....1,000..	254,362	161,824	(NA)	164,307	120,557	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Principal expenses designated below, total.....\$1,000..	983,663	172,356	235,093	661,349	111,571	153,811	122,699	76,690	62,222	41,344	785
Wages of production and development workers.....do....	430,685	83,374	114,691	276,829	53,920	76,677	66,332	49,432	43,150	32,712	785
Salaries of all other employees.....do....	90,592	21,641	31,678	62,245	14,551	20,048	11,262	7,265	5,736	(NA)	(NA)
Minerals received for preparation.....do....	44,677	(NA)	(NA)	44,677	(NA)	(NA)	49	...	(NA)	(NA)	(NA)
Supplies.....	9273,172	38,065	54,319	179,123	25,237	35,190	28,562	12,285	13,109	8,577	(NA)
Purchased fuel.....do....	961,702	14,966	17,098	40,329	9,281	11,812	11,981	6,772	13,109	8,577	(NA)
Purchased electric energy.....do....	936,815	12,040	15,547	26,818	7,117	8,785	2,727	936	227	55	(NA)
Contract work.....do....	946,020	2,270	1,760	31,328	1,465	1,299	1,786	936	227	55	(NA)
Purchased machinery installed.....do....	10133,875	(NA)	20,814	86,181	(NA)	12,852	(NA)	(NA)	(NA)	(NA)	(NA)
Capital expenditures, total.....do....	10148,977	(NA)	(NA)	102,890	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Development and exploration of mineral property.....do....	109,529	(NA)	5	7,880	(NA)	5	3,306	(NA)	(NA)	(NA)	(NA)
Preparation plant construction.....do....	1022,972	3,716	(NA)	17,150	2,646	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Other construction.....do....	1011,370	(NA)	(NA)	9,326	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
New machinery and equipment.....do....	1088,021	12,634	(NA)	59,463	8,259	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Used plant and equipment.....do....	1017,085	2,820	(NA)	9,071	1,674	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....1,000..	107,827	2,311	1,651	4,617	1,550	921	523	416	225	76	(NA)
Per production worker.....	67	28	17	61	28	14	8	4	3	1	(NA)
Prime movers.....1,000..	105,634	1,198	672	3,046	770	349	336	385	224	(NA)	(NA)
Electric motors driven by purchased energy.....do....	102,193	1,113	979	1,571	780	572	187	31	1	(NA)	(NA)
Horsepower rating of electric motors driven by energy generated at establishment.....do....	10267	231	88	239	214	81	63	43	4	(NA)	(NA)
Energy used.....million kwh equivalent..	1044,394	20,289	28,603	35,337	14,403	21,685	(NA)	(NA)	(NA)	(NA)	(NA)
Coal.....1,000 short tons..	10509	1,082	2,198	288	639	1,485	1,531	(NA)	(NA)	(NA)	(NA)
Fuel oils.....1,000 barrels..	107,206	2,412	1,637	5,332	1,911	1,204	2,084	(NA)	(NA)	(NA)	(NA)
Gas.....million cu.ft..	1063,883	17,833	23,825	61,797	15,987	23,685	163	(NA)	(NA)	(NA)	(NA)
Electric energy purchased.....million kwh..	102,959	821	903	2,225	571	644	(NA)	(NA)	(NA)	(NA)	(NA)
Electric energy generated and used.....do....	10522	278	131	488	261	123	(NA)	(NA)	(NA)	(NA)	(NA)

NA Not available.

¹Except for value of shipments and value added, excludes data for dimension stone dressing plants operated in conjunction with quarries. The value added in dressing stone at such operations was \$7,913,000; this value has been included in the value of shipments and value added in mining.²Excludes data for common clay and shale and peat operations. There were 609 such mines in 1939 with products valued at \$6,341,000. Also excludes data for 27 nonproducing establishments in the Nonmetallic minerals (except fuels) mining industries.³Excludes data for 27 nonproducing establishments.⁴Excludes data for 19 nonproducing establishments.⁵Includes data for lime plants producing lime valued at \$9,336,000.⁶Represents the sum of the number of operating companies in individual industries or available groups of industries. Probably includes some duplication due to the same company operating in more than one industry.⁷For crushed stone, clay, and gypsum operations classified in the manufacturing industries includes the estimated value of minerals produced and used in the same establishment. For 1954, 1919, and 1909, represents gross value of shipments (or production for 1919 and 1909) and contains some duplication due to the transfer of crude minerals from one establishment to another for preparation. The approximate magnitude of this duplication is indicated by the figures shown for cost of "Minerals received for preparation." For all other years the figures represent net production and exclude this duplication.⁸Figures for average employment were reduced to a 300-day basis for establishments which operated for a shorter period.⁹Figures for fuels, electric energy, and contract work for crushed stone, clay, and gypsum operations classified in manufactures are included with figure for supplies.¹⁰Excludes statistics for crushed stone, clay, and gypsum operations classified in manufactures.

NONMETALLIC MINERALS (EXCEPT FUELS) MINING IN THE UNITED STATES BY AREA: 1954



EACH SYMBOL REPRESENTS 100 EMPLOYEES

DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS

Table 2.—DETAILED STATISTICS FOR NONMETALLIC MINERALS (EXCEPT FUELS)

(For explanation of line captions and for statement on the minimum

Item	Nonmetallic minerals (except fuels) mining industries, total		Dimension stone						
			Limestone		Granite		Slate quarries (included in manu- factures)	Marble	
	Including operations classified in manu- factures	Mineral industries only	Classi- fied in mineral indus- tries	Included in manu- factures	Classi- fied in mineral indus- tries	Included in manu- factures		Classi- fied in mineral indus- tries	Included in manu- factures
1 Number of operating companies.....	7,571	6,623	63	40	79	57	52	18	6
2 Number of establishments.....	9,291	8,074	65	41	86	57	52	30	6
3 Number of mines and quarries:									
4 1954.....	9,273	8,054	65	41	86	59	52	31	6
5 1939.....	5,097	(NA)	40	24	91	72	68	19	19
6 Number of preparation plants.....	6,415	6,211	...	41	...	57	52	...	6
7 Value of shipments: ²									
8 1954.....\$1,000..	² 1,822,906	1,582,192	3,754	16,739	5,738	22,760	6,904	3,491	7,141
9 1939.....do....	323,043	(NA)	1,541	3,523	3,268	4,832	3,431	879	4,028
10 Value added in mining.....do....	1,375,622	1,181,986	2,942	13,744	4,590	16,386	5,697	2,893	5,348
11 Number of persons engaged, total.....	140,417	119,989	572	2,376	1,022	3,090	1,397	645	1,260
12 Production and development workers.....	116,561	97,081	472	2,221	917	2,745	1,259	612	1,109
13 All other employees.....	17,127	16,347	28	129	50	297	90	25	150
14 Proprietors and firm members.....	6,729	6,561	72	26	55	48	48	8	1
15 Performing manual labor.....	3,688	3,568	41	21	25	29	36	3	...
16 Man-hours worked by production and development workers, total:									
17 1954.....1,000..	254,362	214,799	872	4,519	1,769	5,676	2,564	1,245	2,458
18 1939.....do....	⁴ 161,824	(NA)	(⁴)	⁴ 2,200	(⁴)	⁴ 4,267	1,808	(⁴)	⁴ 2,846
19 At mines, total.....	141,854	112,569	872	2,073	1,769	2,251	1,126	1,245	742
20 Underground.....do....	17,894	15,099	11	15	138	...	57	699	...
21 Open-pit.....do....	101,531	76,320	786	1,818	1,476	1,520	968	544	576
22 Surface (mine shops, yards, etc.).....do....	22,429	21,150	75	240	155	731	101	2	166
23 At preparation plants.....do....	112,508	102,230	...	2,446	...	3,425	1,438	...	1,716
24 Man-hours spent on development and exploration work (included above).....do....	10,549	9,692	...	25	10	6	42	4	...
25 Value added per man-hour.....dollars..	5.41	5.50	3.37	3.04	2.59	2.89	2.22	2.32	2.18
26 Principal expenses designated below, total.....\$1,000..	983,663	865,192	2,335	11,741	3,806	17,456	5,260	2,244	5,583
27 Wages of production and development workers.....do....	430,685	363,604	1,429	8,050	2,404	9,402	3,598	1,505	3,056
28 Salaries of all other employees.....do....	90,592	86,416	127	753	235	1,660	427	135	727
29 Minerals received for preparation.....do....	44,677	43,165	...	75	...	765	19	...	575
30 Supplies.....do....	⁹ 273,172	230,371	586	2,100	693	4,491	908	511	843
31 Purchased fuel.....do....	⁹ 61,702	60,899	87	248	96	276	125	13	25
32 Purchased electric energy.....do....	⁹ 36,815	35,351	54	363	229	659	165	80	190
33 Contract work.....do....	⁹ 46,020	45,386	52	152	149	203	18	...	167
34 Purchased machinery installed.....do....	¹⁰ 133,875	132,102	158	704	226	600	105	55	139
35 Capital expenditures, total.....do....	¹⁰ 148,977	147,068	125	647	245	620	133	61	146
36 Development and exploration of mineral property.....do....	¹⁰ 9,510	⁹ 9,401	...	39	30	14	45	5	4
37 Preparation plant construction.....do....	¹⁰ 22,972	22,845	...	15	3	70	6	...	...
38 Other construction.....do....	¹⁰ 11,389	11,209	...	34	2	6	3	14	7
39 New machinery and equipment.....do....	¹⁰ 88,021	86,808	89	504	157	433	39	39	80
40 Used plant and equipment.....do....	¹⁰ 17,085	16,805	36	55	53	97	40	3	55
41 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....1,000..	¹⁰ 7,827	7,659	18	54	30	55	23	13	17
42 Per production worker.....do....	67	79	37	25	33	20	18	21	15
43 Prime movers.....1,000..	¹⁰ 5,634	5,561	13	23	17	22	12	7	5
44 Electric motors driven by purchased energy.....do....	¹⁰ 2,193	2,098	5	31	13	33	11	6	12
45 Horsepower rating of electric motors driven by energy generated at establishment.....do....	¹⁰ 267	266	...	(¹¹)	...	(¹¹)	...	5	...
46 Energy used.....million kwh equivalent..	¹⁰ 44,394	43,792	34	189	35	184	76	8	29
47 Coal.....1,000 short tons..	¹⁰ 509	468	1	15	...	7	5	...	1
48 Fuel oil.....1,000 barrels..	¹⁰ 7,206	7,159	6	10	5	29	4	...	2
49 Gas.....million cu.ft..	¹⁰ 63,883	63,819	7	24	9	17	23	...	...
50 Electric energy purchased.....million kwh..	¹⁰ 2,959	2,859	1	21	12	52	8	5	16
51 Electric energy generated and used.....do....	¹⁰ 522	520	...	1	...	1	...	2	...
52 Water intake, including mine water used.....million gallons..	¹⁰ 372,088	369,092	16	273	95	1,669	43	16	585
53 Per production worker.....do....	3.19	3.80	0.03	0.12	0.10	0.61	0.03	0.03	0.53

See footnotes at end of table.

MINING OPERATIONS IN THE UNITED STATES, BY INDUSTRY: 1954

size of establishments included for each year, see INTRODUCTION)

Dimension stone—Continued				Crushed and broken stone							
Sandstone		Trap rock and Stone, n.e.c.		Limestone		Granite		Slate	Marble	Trap rock	
Classified in mineral industries	Included in manu-factures	Classified in mineral industries	Included in manu-factures	Classified in mineral industries	Included in manu-factures	Classified in mineral industries	Included in manu-factures			Classified in mineral industries	Included in manu-factures
107	28	55	18	1,174	149	75	3	6	14	100	5
115	30	55	18	1,447	243	101	3	11	18	142	5
115	30	55	18	1,443	243	99	3	11	17	139	5
25	34	4	...	916	276	179	(1)	11	6	116	(1)
...	30	...	18	1,362	(NA)	88	...	11	16	131	...
5,292	5,788	670	626	328,757	216,548	30,875	355	8,162	5,142	45,471	1,398
641	1,187	27	...	55,172	21,975	17,030	(1)	2,137	185	19,632	(1)
4,178	4,872	552	572	239,604	95,258	22,201	182	5,055	3,661	34,127	1,224
1,070	1,014	214	132	29,257	6,164	2,605	24	535	433	3,132	87
925	882	142	105	24,925	36,164	2,344	24	464	379	2,680	87
48	104	5	10	3,315	(NA)	206	(NA)	69	52	377	(NA)
97	28	67	17	1,017	(NA)	55	(NA)	2	2	75	(NA)
43	18	21	16	490	(NA)	24	(NA)	...	2	29	(NA)
1,752	1,805	255	240	56,335	12,329	5,607	48	1,198	796	6,659	175
(4)	1,141	436	...	148,901	(1)	14,574	(1)	803	127	14,001	(1)
1,752	711	255	81	33,122	12,329	3,001	48	259	237	3,586	175
...	...	...	...	3,787	1,905	3	...	...	104	54	...
1,432	670	255	81	21,992	10,424	2,543	648	259	108	2,972	175
320	41	...	...	7,343	(6)	455	(6)	...	25	560	(6)
...	1,094	...	159	23,213	...	2,606	...	939	559	3,073	...
...	784	7	...	992	(NA)	473	(NA)	...	12	738	(NA)
2.38	2.70	2.16	2.38	4.25	9.45	3.96	7.40	4.22	4.60	5.12	7.99
3,629	4,585	457	452	196,322	44,162	17,699	279	5,484	3,008	25,349	585
2,273	3,019	327	301	90,715	22,872	7,573	106	1,949	1,120	12,089	411
183	547	7	62	17,103	(NA)	1,306	(NA)	420	249	2,116	(NA)
...	78	...	...	1,895	...	6,506	...	...	1,268	7,600	...
631	661	61	59	58,726	...	747	...	2,045	86	1,409	...
161	121	44	8	11,913	...	838	173	610	117	1,148	174
22	73	4	14	8,634	21,290	729	...	336	168	987	...
359	86	14	8	7,336	...	3,041	...	124	196	3,870	...
413	199	39	26	32,622	...	3,187	...	304	354	3,670	...
472	302	44	61	31,973	...	13	...	...	10	50	...
23	6	11	1	1,219	...	742	...	14	126	754	...
49	1	...	35	5,601	...	102	...	21	28	442	...
15	130	3	...	2,037	...	1,841	...	277	186	1,915	...
285	149	11	8	19,153	...	489	...	...	4	509	...
100	16	19	17	3,963	...	...	...	...	...	...	...
27	16	6	3	2,183	...	169	...	26	13	216	...
30	19	43	28	88	...	72	...	56	34	81	...
26	9	6	2	1,583	...	106	...	5	7	141	...
1	7	(11)	1	600	(NA)	63	(NA)	21	6	75	(NA)
...	...	...	...	59	...	1	...	...	...	1	...
52	122	13	2	4,956	...	282	...	498	54	507	...
1	13	...	...	99	...	1	...	53	4	6	...
5	1	3	1	1,056	...	80	...	33	1	114	...
...	...	1	...	1,197	...	4	...	...	...	9	...
...	3	...	...	544	...	60	...	24	11	60	...
...	...	...	...	68	...	1	...	...	...	1	...
6	410	...	16	53,610	...	3,215	...	119	11	1,101	...
0.01	0.46	...	0.15	2.15	...	1.37	...	0.26	0.03	0.41	...

Table 2.—DETAILED STATISTICS FOR NONMETALLIC MINERALS (EXCEPT FUELS)

(For explanation of line captions and for statement on the minimum

Item	Crushed and broken stone—Con.			Sand and gravel			Clay, ceramic, and refractory minerals		
	Sand-stone	Stone, n.e.c.		Common sand and gravel	Glass sand	Foundry sand	Bentonite	Fire clay	
		Classified in mineral industries	Included in manufactures					Classified in mineral industries	Included in manufactures
1 Number of operating companies.....	60	83	4	3,196	40	105	29	180	99
2 Number of establishments.....	87	95	4	3,756	44	131	43	248	105
3 Number of mines and quarries:									
1954.....	86	87	4	3,766	44	139	43	252	105
1939.....	68	161	(1)	1,380	39	144	29	1306	(1)
5 Number of preparation plants.....	74	79	...	3,156	38	115	28	61	(NA)
Value of shipments: ²									
1954.....\$1,000..	31,190	15,657	546	435,662	18,591	11,762	21,830	22,206	29,613
1939.....do....	2,930	2,528	(1)	69,130	6,137	4,136	1,982	17,178	(1)
8 Value added in mining.....do....	22,913	10,050	371	334,046	13,701	8,982	16,350	17,468	6,867
9 Number of persons engaged, total.....	1,757	946	12	37,498	1,321	1,170	657	2,154	1,220
10 Production and development workers.....	1,529	803	312	28,423	1,144	966	578	1,802	1,220
11 All other employees.....	182	79	(NA)	5,667	151	115	56	185	(NA)
12 Proprietors and firm members.....	46	64	(NA)	3,408	26	89	23	167	(NA)
13 Performing manual labor.....	23	27	(NA)	1,852	11	50	7	74	(NA)
Man-hours worked by production and development workers, total:									
1954.....1,000..	3,283	1,681	25	65,600	2,505	1,998	1,340	3,123	2,419
1939.....do....	1,990	1,970	(1)	31,324	2,667	1,794	687	15,642	(1)
16 At mines, total.....do....	1,751	848	25	28,314	734	853	427	2,408	2,419
17 Underground.....do....	18	13	...	144	35	4	4	958	...
18 Open-pit.....do....	1,452	720	625	628,170	6,699	6,849	415	1,137	62,419
19 Surface (mine shops, yards, etc.).....do....	281	115	(6)	(6)	(6)	(6)	8	313	(6)
20 At preparation plants.....do....	1,532	833	...	37,286	1,771	1,145	913	715	...
21 Man-hours spent on development and exploration work (included above).....do....	69	8	(NA)	4,896	3	9	16	513	(NA)
22 Value added per man-hour.....dollars..	6.98	5.98	21.84	5.09	5.47	4.50	12.20	5.59	3.97
23 Principal expenses designated below, total.....\$1,000..	15,859	9,360	202	238,513	10,119	6,360	7,653	11,371	6,859
24 Wages of production and development workers.....do....	5,970	3,083	27	111,600	4,279	3,087	1,920	5,670	4,113
25 Salaries of all other employees.....do....	1,084	419	(NA)	26,958	819	570	215	928	(NA)
26 Minerals received for preparation.....do....	...	...	...	(NA)	(NA)	(NA)	2,916	160	...
27 Supplies.....do....	6,636	4,646	...	57,481	3,208	928	...	1,983	...
28 Purchased fuel.....do....	890	395	175	19,758	840	775	468	639	2,746
29 Purchased electric energy.....do....	542	213	...	8,797	807	393	305	305	...
30 Contract work.....do....	737	604	...	13,919	166	607	1,829	1,686	...
31 Purchased machinery installed.....do....	4,096	572	...	45,825	965	904	604	1,292	...
32 Capital expenditures, total.....do....	4,624	823	...	44,164	1,096	827	642	1,327	...
33 Development and exploration of mineral property.....do....	6	78	...	1,573	34	42	15	79	...
34 Preparation plant construction.....do....	1,712	214	...	5,468	210	144	75	116	...
35 Other construction.....do....	60	41	...	1,952	48	44	6	68	...
36 New machinery and equipment.....do....	2,701	243	...	27,254	789	515	392	925	...
37 Used plant and equipment.....do....	145	247	...	7,917	15	82	154	139	...
38 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....1,000..	108	63	...	3,069	54	87	36	100	...
39 Per production worker.....do....	71	79	...	108	48	90	63	56	...
40 Prime movers.....1,000..	73	49	(NA)	2,498	22	68	20	82	(NA)
41 Electric motors driven by purchased energy.....do....	35	14	...	571	32	19	16	18	...
42 Horsepower rating of electric motors driven by energy generated at establishment.....do....	1	1	...	28	...	(11)	...	(11)	...
43 Energy used.....million kwh equivalent..	393	193	...	7,978	746	333	369	300	...
44 Coal.....1,000 short tons..	5	...	...	157	55	6	...	3	...
45 Fuel oil.....1,000 barrels..	119	23	...	1,665	91	118	80	108	...
46 Gas.....million cu.ft..	134	278	...	1,783	261	9	626	31	...
47 Electric energy purchased.....million kwh..	28	15	...	649	61	24	26	17	...
48 Electric energy generated and used.....do....	1	1	...	32	...	...	...	...	...
49 Water intake, including mine water used.....million gallons..	1,420	443	...	179,035	5,828	1,713	12	157	...
50 Per production worker.....do....	0.93	0.55	...	6.29	5.09	1.77	0.02	0.09	...

See footnotes at end of table.

MINING OPERATIONS IN THE UNITED STATES, BY INDUSTRY: 1954—Continued
size of establishments included for each year, see INTRODUCTION)

Clay, ceramic, and refractory minerals—Continued							Natural abrasives except sand	Chemical and fertilizer mineral mining						
Fuller's earth	Kaolin and ball clay		Feldspar	Magne- site and brucite	Clay, ceramic, and refractory minerals, n.e.c.			Barite	Fluor- spar	Potash, soda, and borate minerals	Phos- phate rock	Rock salt	Sulfur	
	Classified in mineral industries	Included in manu- factures			Classified in mineral industries	Included in manu- factures								
15	40	8	58	4	169	505	32	36	94	15	53	11	12	1
16	54	8	84	4	183	618	32	44	104	20	75	15	20	2
19	61	8	110	4	184	618	32	45	105	20	73	15	16	3
22	195	(1)	59	4	1617	(1)	36	47	61	17	40	17	10	4
13	38	(NA)	22	1	84	(NA)	24	35	33	16	54	13	5	5
6,012	31,892	21,532	6,669	1,655	13,504	25,534	4,474	18,269	15,461	107,757	117,976	35,658	140,685	6
2,107	17,239	(1)	981	1,396	16,481	(1)	1,335	2,065	3,397	17,031	12,286	6,896	31,812	7
4,179	25,249	1,499	4,048	1,372	9,783	19,326	3,681	14,051	9,914	82,213	62,089	30,013	124,166	8
572	3,167	23	700	133	1,250	2,600	310	1,160	1,374	6,323	5,484	1,928	4,095	9
510	2,820	323	579	121	1,053	32,600	251	1,036	997	4,738	4,579	1,659	3,077	10
54	328	(NA)	37	11	98	(NA)	34	89	263	1,584	861	266	1,018	11
8	19	(NA)	84	1	99	(NA)	25	35	114	1	44	3	...	12
4	7	(NA)	70	1	50	(NA)	12	18	82	...	21	1	...	13
1,109	6,159	46	1,235	237	2,174	5,201	524	2,403	2,001	9,381	10,119	3,861	6,229	14
1,051	15,987	(1)	1,016	437	15,646	(1)	798	1,439	2,568	4,388	6,680	2,608	3,031	15
278	1,947	46	600	176	967	5,201	145	1,201	1,141	3,997	5,192	2,078	6,209	16
...	116	...	143	...	84	...	2	469	826	3,045	691	1,500	...	17
278	1,404	446	442	176	854	45,201	140	674	116	...	2,941	45	33	18
...	427	(4)	15	...	29	(4)	3	58	199	952	1,560	533	76,176	19
831	4,212	...	635	61	1,207	...	379	1,202	860	5,384	4,927	1,783	20	20
42	140	(NA)	32	...	31	(NA)	2	6	50	50	303	12	113	21
3.77	4.10	33.30	3.28	5.79	4.50	4.91	7.02	5.85	4.95	8.76	6.14	7.77	19.93	22
3,563	18,276	92	4,457	822	8,235	14,270	2,229	7,854	10,601	59,649	80,598	14,868	43,747	23
1,381	8,115	59	1,523	469	3,412	8,062	932	3,451	3,451	23,028	17,089	7,117	14,619	24
363	1,828	(NA)	199	70	411	(NA)	229	423	1,415	10,411	4,440	1,454	6,567	25
...	14	...	430	...	...	...	32	...	1,728	...	35,393	...	...	26
840	4,576	...	1,400	212	1,621	...	580	2,251	2,195	17,329	11,917	5,351	14,055	27
538	1,524	33	238	32	1,212	...	192	327	495	5,594	3,348	335	5,629	28
218	857	...	302	39	389	6,208	76	552	513	1,641	5,507	367	44	29
223	1,362	...	365	...	1,190	...	188	850	804	1,646	2,904	244	2,833	30
539	2,601	...	294	17	1,161	...	123	1,250	561	8,390	8,156	1,534	2,803	31
525	4,291	...	408	17	1,852	...	398	1,012	749	9,056	11,338	2,186	8,845	32
...	109	...	36	...	48	...	11	24	140	525	1,083	53	3,069	33
71	752	...	90	...	523	...	193	61	81	310	2,310	704	48	34
13	697	...	4	...	176	...	70	17	64	1,289	174	169	3,062	35
413	2,733	...	259	17	970	...	103	853	429	6,866	7,662	1,259	2,635	36
28	...	...	19	...	135	...	21	57	35	66	109	1	31	37
23	97	...	29	13	60	...	14	68	49	195	357	47	159	38
46	34	...	52	115	57	...	57	65	49	41	78	29	52	39
12	64	(NA)	18	10	41	(NA)	12	41	28	112	117	17	156	40
11	33	...	11	3	19	...	2	27	21	83	240	30	3	41
...	(11)	...	...	...	1	...	2	(11)	9	90	16	7	42	42
296	1,134	...	102	16	1,126	...	89	269	380	5,812	2,990	549	12,854	43
...	6	...	...	...	7	...	2	1	24	1	21	1	...	44
149	141	...	39	5	79	...	32	17	65	1,667	1,111	21	44	45
84	2,316	...	...	...	2,709	...	23	484	109	8,820	613	1,522	41,383	46
16	84	...	24	5	21	...	5	47	34	195	652	29	5	47
...	...	...	...	...	1	...	...	...	14	267	49	6	73	48
51	3,890	...	1,224	1,152	267	...	203	6,047	1,091	10,561	62,618	2,968	15,969	49
0.10	1.38	...	2.11	9.52	0.25	...	0.81	5.84	1.09	2.23	13.68	1.79	5.19	50

Table 2.—DETAILED STATISTICS FOR NONMETALLIC MINERALS (EXCEPT FUELS) MINING OPERATIONS IN THE UNITED STATES, BY INDUSTRY: 1954—Continued
(For explanation of line captions and for statement on the minimum size of establishments included for each year, see INTRODUCTION)

Item	Chemical and fertilizer mineral mining, n.e.c.	Non-metallic minerals (except fuels) contract services	Miscellaneous nonmetallic minerals (except fuels)							
			Gypsum		Mica	Native asphalt and bitumens	Pumice and pumicite	Talc, soapstone, and pyrophyllite	Peat	Vermiculite and Non-metallic minerals, n.e.c.
			Classified in mineral industries	Included in manufactures						
Number of operating companies.....	36	62	34	5	446	9	73	54	86	63
Number of establishments.....	39	62	37	27	498	12	75	68	88	70
Number of mines and quarries:										
1954.....	24	xxx	34	27	510	12	75	75	87	75
1939.....	7	xxx	159	(1)	21	23	17	38	25	37
Number of preparation plants.....	29	xxx	22	...	444	8	47	39	68	57
Value of shipments: ²										
1954.....\$1,000..	21,780	6,571	6,631	25,230	4,126	6,424	3,393	11,819	2,326	24,860
1939.....do....	602	632	14,569	(1)	327	2,968	387	3,269	378	3,041
Value added in mining.....do....	18,074	4,884	5,352	22,290	3,284	4,857	2,741	9,486	1,800	17,437
Number of persons engaged, total.....	1,457	706	470	1,029	1,259	563	326	1,501	422	1,801
Production and development workers.....	1,209	614	399	1,029	668	451	223	1,297	321	1,374
All other employees.....	233	25	50	(NA)	42	100	44	174	32	394
Proprietors and firm members.....	15	67	21	(NA)	549	12	59	30	69	33
Performing manual labor.....	7	26	7	(NA)	432	3	35	14	42	14
Man-hours worked by production and development workers, total:										
1954.....1,000..	2,424	1,258	926	2,058	1,196	987	440	2,778	637	2,703
1939.....do....	348	632	12,466	(1)	361	1,330	197	2,068	246	1,395
At mines, total.....do....	1,562	51,258	588	2,058	594	620	169	1,134	431	849
Underground.....do....	1,030	(5)	95	61,240	297	147	...	506	...	176
Open-pit.....do....	241	5492	467	6818	276	244	165	540	407	576
Surface (mine shops, yards, etc.).....do....	291	5766	26	(6)	21	229	4	88	24	97
At preparation plants.....do....	862	(5)	338	...	602	367	271	1,644	206	1,854
Man-hours spent on development and exploration work (included above).....do....	242	635	8	(NA)	40	21	8	138	11	58
Value added per man-hour.....dollars..	7.46	3.88	5.78	12.26	(8)	4.92	6.23	3.41	2.83	6.45
Principal expenses designated below, total.....\$1,000..	10,727	3,993	3,159	6,945	2,570	3,790	1,731	7,984	1,512	15,259
Wages of production and development workers.....do....	4,569	2,214	1,567	4,005	1,255	1,443	748	4,141	829	5,258
Salaries of all other employees.....do....	1,357	113	285	(NA)	87	704	214	799	111	2,062
Minerals received for preparation.....do....	3,775	{ xxx }	924	{ ... }	34	{ ... }	334	{ 256 }	...	265
Supplies.....do....	193	1,088	...	...	564	1,251	...	1,671	321	4,649
Purchased fuel.....do....	394	354	171	...	151	137	119	238	174	967
Purchased electric energy.....do....	439	11	140	2,940	132	85	40	467	31	722
Contract work.....do....	3,360	213	72	...	347	170	276	412	46	1,336
Purchased machinery installed.....do....	4,455	402	2,395	...	474	476	298	486	159	1,441
Capital expenditures, total.....do....	...	381	2,423	...	860	552	415	1,197	205	1,957
Development and exploration of mineral property.....do....	258	xxx	13	...	255	114	32	300	34	109
Preparation plant construction.....do....	940	xxx	46	...	176	23	75	391	15	808
Other construction.....do....	432	19	2	...	12	1	23	62	28	12
New machinery and equipment.....do....	2,795	306	402	...	321	402	99	407	104	1,001
Used plant and equipment.....do....	30	56	1,960	...	96	12	186	37	24	27
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....1,000..	52	38	29	...	17	32	26	36	24	76
Per production worker.....do....	44	63	71	...	(8)	69	115	28	74	55
Prime movers.....do....	19	37	16	(NA)	13	23	22	20	22	38
Electric motors driven by purchased energy.....do....	33	1	13	...	4	9	4	16	2	38
Horsepower rating of electric motors driven by energy generated at establishment.....do....	...	...	(11)	...	(11)	2	(11)	1	...	(11)
Energy used.....million kwh equivalent..	223	96	85	...	58	66	56	133	87	620
Coal.....1,000 short tons..	1	...	(D)	...	(D)	2	...	2	6	...
Fuel oil.....1,000 barrels..	12	25	19	...	17	17	8	36	6	142
Gas.....million cu.ft..	404	...	(D)	...	(D)	(D)	72	(D)	(D)	898
Electric energy purchased.....million kwh..	61	1	12	...	9	5	2	40	2	73
Electric energy generated and used.....do....	...	...	...	...	...	(D)	...	(D)	...	1
Water intake, including mine water used.....million gallons..	14,167	25	131	...	1,022	38	27	324	...	520
Per production worker.....do....	11.72	0.04	0.33	...	(8)	0.08	0.12	0.25	...	0.38

D Withheld to avoid approximately disclosing figures of individual companies.

NA Not available.

xxx Not applicable.

¹Figures for operations included in manufactures are combined with those for operations classified in mineral industries.

²See table 1, footnote 7. Includes an estimated value for minerals produced and used at the same establishment in the production of manufactured products, such as cement, lime, clay products, and gypsum products.

³Estimated on the basis of reported figures for man-hours.

⁴For dimension stone, only man-hours worked at quarries are available and no distinction can be made between quarries classified in mineral industries and those included in manufactures. For each kind of stone, these man-hours are shown in the columns for "Included in manufactures."

⁵Somewhat different detail was reported for man-hours of contractors. The figures shown under "open-pit" represent 127 thousand man-hours for stripping overburden and 365 thousand for mining minerals for others; and that shown for surface represents 508 thousand for prospect and test drilling, and 258 thousand for other work.

⁶Man-hours for surface are included with those for underground and open-pit.

⁷Includes 3,269 thousand man-hours at well operations.

⁸Not shown since the number of proprietors and firm members performing manual labor exceeds one-third of the number of production and development workers.

⁹Figures for fuel, electric energy, and contract work for crushed stone, clay, and gypsum operations classified in manufactures or wholesale trade are included with figures for supplies.

¹⁰Excludes figures for crushed stone, clay, and gypsum operations classified in manufactures or wholesale trade.

¹¹Less than 500 horsepower.

Table 3.—NUMBER OF ESTABLISHMENTS FOR NONMETALLIC MINERALS (EXCEPT FUELS) MINING OPERATIONS, BY STATE AND INDUSTRY, AND VALUE OF SHIPMENTS AND NUMBER OF EMPLOYEES, BY STATE: 1954

Geographic division and State	All operations						Number of establishments						
	Including operations classified in manufactures			Mineral industries only			Dimension stone						
	Number of establishments	Value of shipments ¹ (\$1,000)	Number of employees	Number of establishments	Value of shipments ¹ (\$1,000)	Number of employees	Limestone		Granite		Slate (included in manufactures)	Marble	
							Classified in mineral industries	Included in manufactures	Classified in mineral industries	Included in manufactures		Classified in mineral industries	Included in manufactures
United States, total...	9,291	1,822,906	133,688	8,074	1,582,192	113,428	65	41	86	57	52	30	6
New England.....	450	57,222	5,784	378	38,938	3,869	...	...	21	21	17	7	...
Maine.....	76	(D)	(D)	65	(D)	(D)	...	...	2	7	1	...	...
New Hampshire.....	43	(D)	(D)	38	(D)	(D)	...	...	2	2	...	...	...
Vermont.....	59	18,110	1,840	39	12,122	1,119	...	...	3	2	16	7	...
Massachusetts.....	148	18,866	1,924	127	11,577	1,224	...	...	5	7	...	...	...
Rhode Island.....	21	(D)	(D)	20	1,447	163	...	...	2	1	...	...	...
Connecticut.....	102	(D)	(D)	89	(D)	(D)	...	...	7	2	...	...	...
Middle Atlantic.....	1,055	232,402	17,934	834	192,777	14,408	6	...	6	4	29	...	...
New York.....	376	84,482	5,739	311	74,367	4,892	...	...	4	1	14	...	...
New Jersey.....	153	39,504	2,479	140	38,904	2,415	...	...	...	...	...	...	...
Pennsylvania.....	526	108,416	9,716	383	79,506	7,101	6	...	2	3	15	...	...
East North Central.....	1,977	316,391	24,851	1,701	268,212	20,011	24	23	6	4	...	1	...
Ohio.....	600	94,768	7,981	461	73,869	5,893	...	...	...	...	...	...	...
Indiana.....	385	45,802	4,568	346	29,706	2,713	10	8	...	...	...	...	...
Illinois.....	404	76,604	5,466	365	72,254	5,129	4	...	...	...	...	1	...
Michigan.....	275	60,990	3,971	251	56,218	3,709	...	1	...	...	...	...	...
Wisconsin.....	313	38,227	2,865	278	36,165	2,567	10	14	6	4	...	...	...
West North Central.....	1,422	(D)	(D)	1,307	(D)	(D)	15	9	19	4	...	3	1
Minnesota.....	204	22,442	2,260	196	15,882	1,506	1	4	12	2	...	...	...
Iowa.....	287	34,030	2,073	252	26,417	1,743	1	...	...	...	...	...	...
Missouri.....	370	47,546	4,238	341	32,848	3,349	9	1	1	...	...	3	1
North Dakota.....	40	(D)	(D)	39	(D)	(D)	...	...	...	...	...	...	...
South Dakota.....	123	12,855	1,095	119	11,715	964	...	...	6	2	...	...	...
Nebraska.....	168	12,130	1,091	158	10,547	993	...	...	...	...	...	...	...
Kansas.....	230	26,948	2,154	202	21,615	1,767	4	4	...	...	...	...	...
South Atlantic.....	1,321	(D)	(D)	1,168	(D)	(D)	7	1	26	12	4	1	2
Delaware.....	12	24,467	1,740	10	21,464	1,600	...	...	...	...	...	...	...
Maryland.....	112			95			2	...	2	...	...	...	...
District of Columbia...	2			1			...	...	...	...	...	...	...
Virginia.....	149	39,644	4,060	116	31,595	3,315	2	...	...	...	4	...	...
West Virginia.....	87	25,025	2,190	70	21,670	1,832	...	...	...	...	...	...	...
North Carolina.....	536	33,205	3,521	503	29,960	3,036	...	...	4	3	...	...	1
South Carolina.....	71	(D)	(D)	55	(D)	(D)	...	...	1	...	...	...	...
Georgia.....	185	47,182	5,110	157	41,555	4,178	1	...	19	9	...	1	1
Florida.....	167	120,728	6,149	161	119,017	6,056	2	1	...	...	...	...	...
East South Central.....	595	112,784	10,879	509	97,620	9,428	5	1	...	...	...	14	3
Kentucky.....	174	24,716	2,668	162	24,511	2,646	1	...	...	...	...	1	...
Tennessee.....	235	55,722	5,097	208	50,270	4,492	4	...	...	...	...	13	1
Alabama.....	125	22,051	2,294	90	13,304	1,522	...	1	...	...	...	...	2
Mississippi.....	61	10,295	820	49	9,535	768	...	...	...	...	...	...	...
West South Central.....	628	268,987	14,451	501	250,312	12,724	6	6	2	4	...	2	...
Arkansas.....	76	30,506	1,843	63	27,868	1,622	2	1	...	...	...	2	...
Louisiana.....	88	75,777	3,797	72	75,151	3,696	...	...	...	...	...	...	...
Oklahoma.....	118	15,021	1,477	101	12,103	1,145	1	...	1	2	...	...	...
Texas.....	346	147,683	7,334	265	135,190	6,261	3	5	1	2	...	...	...
Mountain.....	780	171,596	9,481	719	155,773	8,989	2	...	1	2	...	2	...
Montana.....	94	11,509	914	89	10,309	877	...	...	...	...	...	...	...
Idaho.....	87	(D)	(D)	79	(D)	(D)	...	...	...	...	...	...	...
Wyoming.....	62	26,118	1,058	58	25,418	1,027	...	...	...	...	...	...	...
Colorado.....	179	(D)	(D)	156	(D)	(D)	2	...	1	2	...	...	...
New Mexico.....	94	(D)	(D)	92	(D)	(D)	...	...	...	...	...	...	...
Arizona.....	78	(D)	(D)	70	(D)	(D)	...	...	...	...	...	...	...
Utah.....	101	(D)	(D)	94	(D)	(D)	...	...	...	...	...	...	...
Nevada.....	85	12,716	611	81	11,116	592	...	...	...	...	...	2	...
Pacific.....	1,063	200,557	12,656	957	178,854	11,735	...	1	5	6	2	...	...
Washington.....	239	21,517	1,614	215	17,923	1,482	...	...	1	1	...	...	...
Oregon.....	200	17,186	1,315	182	16,577	1,264	...	...	1	1	...	...	...
California.....	624	161,854	9,727	560	144,354	8,989	...	1	3	4	2	...	...

See footnotes at end of table.

Table 3.—NUMBER OF ESTABLISHMENTS FOR NONMETALLIC MINERALS (EXCEPT FUELS) MINING OPERATIONS,

	Geographic division and State	Number of establishments—Continued									
		Dimension stone				Crushed and broken stone					
		Sandstone		Trap rock and Stone, n.e.c.		Limestone		Granite		Slate	Marble
		Classified in mineral industries	Included in manu-factures	Classified in mineral industries	Included in manu-factures	Classified in mineral industries	Included in manu-factures	Classified in mineral industries	Included in manu-factures		
1	United States, total	115	30	55	18	1,447	243	101	3	11	18
2	New England.....	...	1	2	...	11	9	9	1	1	...
3	Maine.....	...	...	...	...	1	2	3	...	...	...
4	New Hampshire.....	...	...	...	...	...	...	...	...	...	...
5	Vermont.....	...	...	...	...	3	1	...	...	1	...
6	Massachusetts.....	...	1	...	...	3	4	4	1	...	...
7	Rhode Island.....	...	...	...	...	1	...	1	...	...	...
8	Connecticut.....	...	...	2	...	3	1	1	...	...	...
9	Middle Atlantic.....	25	11	13	7	166	54	4	...	3	2
10	New York.....	5	4	...	1	48	16	...	...	1	1
11	New Jersey.....	...	...	...	...	4	...	4	...	...	1
12	Pennsylvania.....	20	7	13	6	114	38	...	...	2	...
13	East North Central.....	19	9	4	2	421	41	2	...	...	...
14	Ohio.....	9	6	...	...	102	20	...	...	...	...
15	Indiana.....	4	...	...	...	73	3	...	...	...	...
16	Illinois.....	...	...	3	...	134	6	...	...	...	...
17	Michigan.....	1	1	...	...	33	5	1	...	...	...
18	Wisconsin.....	5	2	1	2	79	7	1	...	...	...
19	West North Central.....	2	...	6	...	404	27	3	...	...	...
20	Minnesota.....	...	...	...	...	26	...	2	...	...	...
21	Iowa.....	...	...	...	...	118	7	...	...	...	...
22	Missouri.....	1	...	3	...	163	10	1	...	...	...
23	North Dakota.....	...	...	...	...	...	...	...	...	...	...
24	South Dakota.....	...	...	...	...	6	1	...	...	...	...
25	Nebraska.....	...	...	...	...	23	2	...	...	...	...
26	Kansas.....	1	...	3	...	68	7	...	...	...	...
27	South Atlantic.....	5	...	10	6	158	27	45	...	6	5
28	Delaware.....	...	...	...	...	...	...	1	...	...	...
29	Maryland.....	2	...	4	1	10	5	2	...	1	1
30	District of Columbia	...	...	...	...	...	...	...	...	...	...
31	Virginia.....	1	...	1	2	47	10	6	...	3	1
32	West Virginia.....	1	...	...	...	27	4	...	...	...	...
33	North Carolina.....	...	...	3	2	10	...	19	...	1	...
34	South Carolina.....	...	...	...	...	2	1	5	...	...	...
35	Georgia.....	1	...	1	1	9	3	12	...	1	3
36	Florida.....	...	...	1	...	53	4	...	...	...	...
37	East South Central.....	29	2	4	...	176	20	1	...	...	2
38	Kentucky.....	2	...	...	...	83	...	...	...	...	...
39	Tennessee.....	24	2	3	...	76	8	1	...	...	2
40	Alabama.....	3	...	1	...	16	11	...	...	...	...
41	Mississippi.....	...	...	...	...	1	1	...	...	...	...
42	West South Central.....	11	...	3	1	47	27	1	...	1	1
43	Arkansas.....	7	...	2	1	6	2	1	...	1	...
44	Louisiana.....	...	...	...	...	...	2	...	...	...	...
45	Oklahoma.....	2	...	1	...	19	2	...	...	...	...
46	Texas.....	2	...	...	...	22	21	...	...	...	1
47	Mountain.....	19	7	9	...	27	15	8	...	...	2
48	Montana.....	...	...	...	...	3	2	3	...	...	...
49	Idaho.....	1	2	...	...	1	1	...	...	...	...
50	Wyoming.....	...	...	...	...	4	1	1	...	...	...
51	Colorado.....	9	3	1	...	7	2	...	...	...	1
52	New Mexico.....	...	1	1	...	1	...	...	...	...	...
53	Arizona.....	3	1	6	...	1	4	3	...	...	1
54	Utah.....	3	...	...	...	7	3	...	...	...	...
55	Nevada.....	3	...	1	...	3	2	1	...	...	...
56	Pacific.....	5	...	4	2	37	23	28	2	...	6
57	Washington.....	3	...	1	...	10	7	5	...	...	5
58	Oregon.....	...	...	1	1	5	2	1	...	...	...
59	California.....	2	...	2	1	22	14	22	2	...	1

See footnotes at end of table.

NONMETALLIC MINERALS (EXCEPT FUELS) MINING

14A-13

BY STATE AND INDUSTRY, AND VALUE OF SHIPMENTS AND NUMBER OF EMPLOYEES, BY STATE: 1954—Continued

Number of establishments—Continued														
Crushed and broken stone					Sand and gravel			Clay, ceramic, and refractory minerals						
Trap rock		Sandstone	Stone, n.e.c.		Common sand and gravel	Glass sand	Foundry sand	Bentonite	Fire clay		Fuller's earth	Kaolin and ball clay		
Classified in mineral industries	Included in manufactures		Classified in mineral industries	Included in manufactures					Classified in mineral industries	Included in manufactures		Classified in mineral industries	Included in manufactures	
142	5	87	95	4	3,756	44	131	43	248	105	16	54	8	1
22	4	4	4	1	227	...	3	...	...	...	...	...	...	2
...	...	4	1	...	32	...	...	...	...	...	...	...	...	3
...	1	11	...	...	...	...	...	...	...	...	4
...	20	...	...	...	...	...	...	...	...	5
10	2	...	2	...	98	...	2	...	...	...	...	...	...	6
...	1	...	13	...	1	...	...	...	...	...	...	7
12	2	...	...	...	53	...	...	...	...	...	...	...	...	8
38	...	28	8	1	372	6	30	...	66	25	...	1	1	9
4	...	3	1	1	208	...	15	...	...	1	...	...	...	10
20	75	3	9	...	8	2	...	...	...	11
14	...	25	7	...	89	3	6	...	58	22	...	1	1	12
2	...	11	6	...	999	4	53	...	52	46	...	...	...	13
...	...	4	1	...	262	1	18	...	38	38	...	...	...	14
...	2	...	226	...	5	...	9	5	...	...	...	15
...	...	1	2	...	163	...	13	...	4	2	...	...	...	16
...	193	1	10	...	1	1	...	...	...	17
2	...	6	1	...	155	2	7	...	...	...	...	...	...	18
...	...	5	7	...	685	7	5	2	50	6	...	...	...	19
...	149	1	2	...	1	...	...	...	...	20
...	2	...	122	...	1	...	...	2	...	...	...	21
...	3	...	75	2	1	...	49	2	...	...	...	22
...	36	1	...	...	...	...	...	...	...	23
...	...	4	...	...	60	...	...	2	...	...	...	...	...	24
...	132	...	...	...	...	1	...	...	...	25
...	...	1	2	...	111	3	1	...	...	1	...	...	...	26
8	...	7	13	1	266	8	4	...	6	7	6	28	3	27
...	9	...	...	...	...	...	...	...	...	28
5	57	1	1	...	3	2	...	...	...	29
...	30
3	...	1	3	1	29	2	1	...	...	...	...	...	...	31
...	...	5	2	...	31	2	...	...	1	4	...	...	1	32
...	2	...	34	...	...	...	...	1	...	3	...	33
...	2	...	24	3	...	...	1	...	...	6	2	34
...	...	1	...	...	35	...	1	...	1	...	3	17	...	35
...	4	...	47	...	1	...	...	...	3	2	...	36
...	...	4	3	...	117	1	10	7	21	4	3	15	1	37
...	...	1	...	...	21	...	1	...	14	2	...	4	...	38
...	...	1	3	...	28	...	7	...	...	...	2	8	1	39
...	...	2	...	...	33	...	1	...	7	1	...	1	...	40
...	35	1	1	7	...	1	1	2	...	41
1	...	2	10	...	293	11	7	10	6	10	4	1	1	42
...	...	1	1	...	26	1	...	...	...	2	...	1	...	43
...	55	1	...	2	...	...	...	...	...	44
...	5	...	59	4	1	1	...	...	...	...	...	45
1	...	1	4	...	153	5	6	7	6	8	4	...	1	46
7	...	13	14	...	277	2	8	15	25	4	1	2	...	47
1	...	4	4	...	52	...	...	...	2	...	...	...	...	48
5	...	1	2	...	50	...	...	...	1	1	...	...	...	49
...	...	1	1	...	17	...	...	11	...	...	...	1	...	50
...	...	3	2	...	61	...	3	1	16	3	...	...	...	51
...	...	1	...	...	23	...	...	...	...	...	...	...	...	52
...	2	...	21	...	...	2	...	...	...	...	...	53
...	...	3	1	...	40	...	3	...	5	...	1	1	...	54
1	2	...	13	2	2	1	1	...	...	...	...	55
64	1	13	30	1	520	5	11	9	22	3	2	7	2	56
19	6	1	113	1	2	...	7	1	...	...	...	57
30	1	2	5	...	119	...	1	...	...	...	...	...	1	58
15	...	11	19	...	288	4	8	9	15	2	2	7	1	59

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 3.—NUMBER OF ESTABLISHMENTS FOR NONMETALLIC MINERALS (EXCEPT FUELS) MINING OPERATIONS,

	Geographic division and State	Number of establishments—Continued								
		Clay, ceramic, and refractory minerals—Continued					Chemical and fertilizer mineral mining			
		Feldspar	Magnesite and brucite	Clay, ceramic, and refractory minerals, n.e.c.		Natural abrasives, except sand	Barite	Fluorspar	Potash, soda, and borate minerals	Phosphate rock
				Classified in mineral industries	Included in manufactures					
1	United States, total	84	4	183	618	32	44	104	20	75
2	New England.....	14	...	4	18	3	...	...	...	...
3	Maine.....	6	...	3	1	...	...	...	...	...
4	New Hampshire.....	5	...	1	2	1	...	...	...	...
5	Vermont.....	...	...	...	1	...	...	...	...	...
6	Massachusetts.....	...	...	...	6	1	...	...	...	...
7	Rhode Island.....	...	...	...	...	...	...	...	...	...
8	Connecticut.....	3	...	...	8	1	...	...	...	...
9	Middle Atlantic.....	...	...	26	86	5	...	...	...	...
10	New York.....	...	...	6	24	4	...	...	...	...
11	New Jersey.....	...	...	7	11	...	...	...	...	...
12	Pennsylvania.....	...	...	13	51	1	...	...	...	...
13	East North Central.....	...	...	29	146	5	...	24	...	...
14	Ohio.....	...	...	9	73	2	...	...	...	...
15	Indiana.....	...	...	8	23	1	...	...	...	...
16	Illinois.....	...	...	8	31	2	...	24	...	...
17	Michigan.....	...	...	2	13	...	...	...	...	...
18	Wisconsin.....	...	...	2	6	...	...	...	...	...
19	West North Central.....	14	...	14	62	2	23	...	...	...
20	Minnesota.....	...	...	...	2	1	...	...	...	...
21	Iowa.....	...	...	4	22	...	...	...	...	...
22	Missouri.....	...	...	4	15	...	23	...	...	...
23	North Dakota.....	...	...	2	1	...	...	...	...	...
24	South Dakota.....	14	...	2	1	1	...	...	...	...
25	Nebraska.....	...	...	1	7	...	...	...	...	...
26	Kansas.....	...	...	1	14	...	...	...	...	...
27	South Atlantic.....	32	...	19	89	2	5	...	...	33
28	Delaware.....	...	...	...	2	...	...	...	...	...
29	Maryland.....	...	...	...	9	...	...	...	...	...
30	District of Columbia	...	...	1	1	...	...	...	...	...
31	Virginia.....	2	...	4	15	1	...	...	...	...
32	West Virginia.....	...	...	1	8	...	...	...	...	...
33	North Carolina.....	28	...	7	26	...	...	...	...	...
34	South Carolina.....	...	...	2	13	...	1	...	...	...
35	Georgia.....	2	...	2	14	1	4	...	...	...
36	Florida.....	...	...	2	1	...	...	...	...	33
37	East South Central.....	...	...	13	55	...	2	29	...	28
38	Kentucky.....	...	...	3	10	...	...	29	...	...
39	Tennessee.....	...	...	2	15	...	2	...	...	28
40	Alabama.....	...	...	8	20	...	...	...	...	...
41	Mississippi.....	...	...	...	10	...	...	...	...	...
42	West South Central.....	2	...	16	73	6	2	...	1	...
43	Arkansas.....	...	...	1	7	4	2	...	...	...
44	Louisiana.....	...	...	4	14	...	...	...	...	...
45	Oklahoma.....	...	...	1	12	1	...	...	...	...
46	Texas.....	2	...	10	40	1	...	...	1	...
47	Mountain.....	21	2	27	28	5	10	49	10	14
48	Montana.....	...	...	3	2	...	1	1	...	6
49	Idaho.....	...	...	1	4	2	1	...	...	5
50	Wyoming.....	...	...	...	3	...	...	...	3	1
51	Colorado.....	20	...	11	12	...	...	6	...	...
52	New Mexico.....	...	...	3	1	...	...	28	5	...
53	Arizona.....	1	...	1	3	2	1	1	...	...
54	Utah.....	...	...	8	2	...	...	4	2	2
55	Nevada.....	...	2	...	1	1	7	9	...	...
56	Pacific.....	1	2	35	61	4	2	2	9	...
57	Washington.....	...	1	8	14	1	...	...	...	...
58	Oregon.....	...	...	5	12	...	...	...	...	...
59	California.....	1	1	22	35	3	2	2	9	...

D Withheld to avoid approximately disclosing figures for individual companies.

¹See table 1, footnote 7.

BY STATE AND INDUSTRY, AND VALUE OF SHIPMENTS AND NUMBER OF EMPLOYEES, BY STATES: 1954—Continued

Number of establishments--Continued												
Chemical and fertilizer mineral mining--Continued			Non-metallic minerals (except fuels) contract services	Miscellaneous nonmetallic minerals (except fuels)								
Rock salt	Sulfur	Chemical and fertilizer mineral mining, n.e.c.		Gypsum		Mica	Native asphalt and bitumens	Pumice and pumicite	Talc, soap-stone, and pyro-phyllite	Peat	Vermiculite and Miscel-laneous nonmetallic minerals, n.e.c.	
				Classified in mineral industries	Included in manu-factures							
15	20	39	62	37	27	498	12	75	68	88	70	1
...	...	1	1	...	...	28	...	...	4	10	2	2
...	...	1	...	...	...	8	...	...	...	4	...	3
...	17	...	...	...	1	...	4
...	4	...	1	5
...	2	...	6
...	1	7
...	1	...	...	3	...	...	...	3	...	8
2	...	2	5	2	3	1	...	...	3	11	3	9
2	...	1	...	2	3	...	...	...	3	3	...	10
...	3	...	...	...	...	...	...	3	3	11
...	...	1	2	...	...	1	...	...	...	5	...	12
1	...	2	10	1	5	...	...	...	...	25	...	13
...	3	...	2	...	...	...	...	12	...	14
...	2	...	...	...	...	...	...	6	...	15
...	...	2	3	...	...	...	...	...	...	1	...	16
1	1	1	3	...	...	...	...	6	...	17
...	1	...	...	...	...	...	...	...	...	18
3	...	2	6	...	6	21	1	4	...	4	...	19
...	1	...	20
...	1	...	4	...	...	...	...	3	...	21
...	2	...	...	...	1	...	...	...	...	22
...	23
...	...	2	1	...	...	21	...	...	...	...	...	24
...	1	...	...	...	...	1	...	...	...	25
3	1	...	2	...	...	3	...	...	...	26
...	...	5	8	1	1	418	...	...	15	12	9	27
...	28
...	1	...	...	2	...	1	29
...	30
...	...	2	...	1	1	3	...	...	2	...	1	31
...	32
...	...	1	1	...	...	379	...	...	8	...	3	33
...	4	...	...	...	...	4	34
...	...	2	2	...	...	31	...	...	3	4	...	35
...	5	...	...	...	...	...	...	8	...	36
...	...	1	6	...	...	16	2	...	...	...	...	37
...	1	...	...	...	1	...	...	...	...	38
...	...	1	3	...	...	...	...	...	...	...	...	39
...	1	...	...	16	1	...	...	...	...	40
...	1	...	...	...	...	...	...	...	...	41
5	14	11	7	6	5	...	3	4	2	1	2	42
...	...	3	...	1	...	...	...	...	1	...	...	43
4	4	1	...	1	...	...	...	...	...	...	...	44
...	...	1	...	2	1	...	1	1	...	...	...	45
1	10	6	7	2	4	...	2	3	1	1	2	46
3	4	10	17	14	5	13	6	30	13	2	35	47
...	...	1	...	1	1	1	...	1	4	...	1	48
...	2	1	...	2	...	3	...	1	...	49
...	3	3	7	3	...	...	...	2	...	...	...	50
...	...	2	1	3	1	2	...	2	...	1	1	51
...	...	2	1	1	...	6	...	14	...	...	6	52
...	...	1	1	3	...	2	...	4	...	...	14	53
2	1	1	2	...	2	...	6	1	...	...	1	54
1	3	2	1	...	...	3	9	...	12	55
1	2	5	2	13	2	1	...	37	31	23	19	56
...	2	...	...	...	4	4	19	3	57
...	...	3	...	...	...	...	...	6	...	...	3	58
1	2	2	2	11	2	1	...	27	27	4	13	59

MINERAL INDUSTRIES--INDUSTRY STATISTICS

Table 4.—NUMBER OF NONMETALLIC MINERALS (EXCEPT FUELS) MINING OPERATIONS IN THE UNITED STATES,
CLASSIFIED BY EMPLOYMENT SIZE, BY INDUSTRY: 1954

(For operations classified in the mineral industries, represents number of establishments classified by employment size of establishment; for operations classified in the manufacturing industries, represents number of establishments including a mine or quarry classified by employment size of the mine or quarry.)

Industry group, industry, and subindustry	Number of operations, total	Operations with an average of—									
		No em- ployees	1-4 em- ployees	5-9 em- ployees	10-19 em- ployees	20-49 em- ployees	50-99 em- ployees	100-249 em- ployees	250-499 em- ployees	500-999 em- ployees	1,000-2,499 em- ployees
Nonmetallic minerals (except fuels)											
mining, total.....	9,291	1,310	3,213	1,696	1,502	1,101	297	123	38	9	2
Classified in mineral industries.....	8,074	1,235	2,715	1,480	1,333	927	242	101	32	7	2
Included in manufactures.....	1,217	75	498	216	169	174	55	22	6	2	...
Dimension Stone:											
Limestone:											
Classified in mineral industries.....	65	9	36	6	3	9	2	...	...	...	...
Included in manufactures.....	41	3	6	8	6	6	4	7	...	1	...
Granite:											
Classified in mineral industries.....	86	3	37	17	14	11	4	...	...	...	...
Included in manufactures.....	57	4	11	7	8	15	5	4	2	1	...
Slate (included in manufactures).....	52	6	12	4	11	6	12	1	...	...	...
Marble:											
Classified in mineral industries.....	30	1	8	7	4	9	...	...	1	...	...
Included in manufactures.....	6	...	...	...	...	...	1	2	3	...	...
Trap rock.....	4	...	3	...	1	...	...	...	...	...	...
Sandstone:											
Classified in mineral industries.....	115	10	58	22	15	7	1	2	...	...	...
Included in manufactures.....	30	4	8	3	6	6	...	2	1	...	...
Stone, n.e.c.:											
Classified in mineral industries.....	51	8	35	7	1	...	...	...	...	...	...
Included in manufactures.....	18	1	12	3	1	...	1	...	...	...	...
Crushed and broken stone:											
Limestone:											
Classified in mineral industries.....	1,447	54	325	269	411	287	67	27	6	1	...
Included in manufactures.....	243	14	26	26	51	97	25	4	...	...	...
Granite:											
Classified in mineral industries.....	101	6	19	25	11	24	11	5	...	...	...
Included in manufactures.....	3	...	2	...	1	...	...	...	...	...	...
Slate.....	11	...	...	2	4	1	4	...	...	...	...
Marble.....	18	...	6	1	6	3	1	1	...	...	...
Trap rock:											
Classified in mineral industries.....	142	8	23	31	28	39	9	4	...	...	...
Included in manufactures.....	5	...	1	1	2	1	...	...	...	...	...
Sandstone.....	87	9	12	19	16	26	4	...	1	...	...
Stone, n.e.c.:											
Classified in mineral industries.....	95	8	49	23	7	3	4	1	...	...	...
Included in manufactures.....	4	1	2	1	...	...	...	...	...	...	...
Sand and gravel:											
Common sand and gravel.....	3,756	453	1,499	783	595	334	75	15	2	...	...
Glass sand.....	44	4	11	3	6	14	4	1	1	...	...
Foundry sand.....	131	11	57	29	26	5	3	...	...	...	...
Clay, ceramic, and refractory minerals:											
Bentonite.....	43	7	12	2	6	14	2	...	...	...	...
Fire clay:											
Classified in mineral industries.....	248	39	102	41	37	26	3	...	...	...	...
Included in manufactures.....	105	6	26	32	24	15	2	...	...	...	...
Fuller's earth.....	16	1	7	1	1	4	...	1	1	...	...
Kaolin and ball clay:											
Classified in mineral industries.....	54	4	10	4	8	13	8	4	3	...	...
Included in manufactures.....	8	2	5	1	...	...	...	...	...	...	...
Feldspar.....	84	37	18	13	6	9	...	1	...	...	...
Magnesite and brucite.....	4	...	1	...	1	1	1	...	...	...	...
Clay, ceramic, and refractory minerals, n.e.c.:											
Classified in mineral industries.....	183	42	78	29	14	18	2	...	...	...	...
Included in manufactures.....	618	34	387	127	52	18	...	...	...	...	...
Natural abrasives, except sand, n.e.c.:											
Natural abrasive stones.....	11	5	3	...	3	...	...	...	...	...	...
Natural abrasives, except sand, n.e.c.....	21	4	7	3	3	3	1	...	...	...	...
Chemical and fertilizer mineral mining:											
Barite.....	44	4	7	7	15	8	1	1	...	...	...
Fluorspar.....	104	55	14	13	7	9	5	...	1	...	...
Potash, soda, and borate minerals.....	20	...	5	1	1	1	2	1	5	2	2
Phosphate rock.....	75	10	10	10	6	9	11	14	4	1	...
Rock salt.....	15	1	2	...	...	1	4	6	1	...	...
Sulfur.....	20	1	4	1	1	...	2	7	2	2	...
Chemical and fertilizer mineral mining, n.e.c.....	39	8	7	4	9	6	2	2	...	1	...
Nonmetallic minerals (except fuels).....											
contract services.....	62	4	24	16	14	3	...	1	...	...	...
Miscellaneous nonmetallic minerals (except fuels):											
Gypsum:											
Classified in mineral industries.....	37	3	14	10	5	3	1	1	...	...	...
Included in manufactures.....	27	...	...	3	7	10	5	2	...	...	...
Mica.....	498	351	98	32	11	5	1	...	...	...	...
Native asphalt and bitumens.....	12	1	...	2	2	3	2	2	...	...	...
Pumice and pumicite.....	75	26	30	12	6	1	...	...	...	...	...
Talc, soapstone, and pyrophyllite.....	68	14	22	11	8	8	3	1	1	...	...
Vermiculite.....	6	...	4	...	...	...	...	2	...	...	...
Peat.....	88	24	40	13	8	3	...	...	...	...	...
Nonmetallic minerals, n.e.c.....	64	10	18	11	13	7	2	1	2	...	...

STONE

14B-1

Stone

This report shows 1954 Census of Mineral Industries statistics for the United States for establishments classified in Industry Groups 141, Dimension Stone, and 142, Crushed and Broken Stone, and also related statistics for stone quarries operated as part of establishments classified in the manufacturing and wholesale trade industries.

Industry Group 141 comprises establishments primarily engaged in mining or quarrying rough dimension stone. These establishments shipped stone for use without dressing or for dressing at separate stone dressing plants. Also included in this report are figures for dimension stone quarries operated in conjunction with a dressing plant. These establishments represent a part of the manufacturing Industry 3281, Cut stone and stone products, being classified as primarily engaged in dressing (shaping, polishing, or otherwise finishing) rough stone. The consolidated figures for these two groups of dimension stone quarries, including data for the associated dressing plants, provide comparable statistics with those for most previous Census years.

Industry Group 142 comprises establishments primarily engaged in mining or quarrying crushed and broken stone. Also included in this report are figures for crushed and broken stone quarries operated as part of cement, lime, bituminous concrete, and ready-mixed concrete plants. The latter establishments, including the associated quarry, are classified in the following manufacturing and wholesale trade industries: Industry 2951, Paving mixtures and blocks; Industry 3241, Cement, hydraulic; Industry 3274, Lime; and Industry 5099, Lumber and construction materials. For 1939 and 1929, separate reports were requested for all such quarries and they were classified in the crushed and broken stone industries. For 1919 and 1909, such quarries were excluded from the minerals census statistics.

Separate figures are shown throughout this report on limestone, granite, slate, marble, trap rock, sandstone, and miscellaneous stone operations. In tables 2, 3, and 4 data are also segregated for quarries classified in the mineral industries and for those classified in manufacturing and wholesale trade industries. Table 1A presents comparative statistics for the stone industries for Census years from 1840 through 1954 representing all dimension stone quarries combined, including data for associated dressing plants, and crushed and broken stone quar-

ries not operated as part of manufacturing and wholesale trade establishments. Separate figures for quarries operated as part of cement, lime, bituminous concrete, and ready-mixed concrete plants are shown in table 1B for the years 1929, 1939, and 1954. More detailed statistics for each stone quarrying industry, and a description of the kinds of stone included for each are provided in the following separate reports:

MI-14C—Dimension Stone

MI-14D—Crushed and Broken Stone

For all stone quarrying operations, the total value of shipments and of crushed stone used in associated manufacturing and wholesale trade activities in 1954 amounted to \$663 million. Of this total, limestone operations accounted for \$466 million; granite operations, \$60 million; slate operations, \$15 million; marble operations, \$16 million; crushed and broken trap rock operations, \$47 million; sandstone operations, \$42 million; and dimension trap rock and all miscellaneous stone operations, \$17 million. The value of 1954 shipments from all stone quarries and crushing plants classified in the mineral industries was \$484 million, and the value of stone shipped or used at the same establishment in cement or lime manufacture was \$179 million. The value of shipments in 1954 for all dimension stone quarries was \$79 million, including \$19 million for establishments classified in the mineral industries and \$60 million for establishments classified in the manufacturing industries. The value of crushed and broken stone quarry shipments and of stone used in cement and lime manufacture in 1954 was \$584 million, including \$465 million for establishments classified in the mineral industries and \$119 million for quarries included in establishments classified in the manufacturing and wholesale trade industries.

The Bureau of Mines also collected statistics on the quantity and value of stone for 1954 as part of its annual commodity program for statistics. The total tonnage of stone tabulated by the Census Bureau and the Bureau of Mines differed by only 0.13 percent. The Census tonnage for dimension stone was somewhat greater than that of the Bureau of Mines, whereas the Census tonnage for crushed stone was slightly less than the Bureau of Mines tonnage. Some of the reasons for differences between the statistics of these two agencies are discussed in the separate reports on Dimension stone and Crushed and broken stone.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 1A.—COMPARATIVE STATISTICS FOR STONE QUARRIES IN THE UNITED STATES, EXCEPT CRUSHED AND BROKEN STONE QUARRIES INCLUDED IN MANUFACTURING
(For explanation of line captions and for statement on the minimum

	Item	1954							
		Total	Limestone	Granite	Slate	Marble	Trap rock ²	Sand-stone	Stone, n.e.c. ²
1	Number of operating companies.....	1,984	1,277	211	58	38	100	195	156
2	Number of establishments.....	2,456	1,553	244	63	54	142	232	168
3	Number of quarries.....	2,440	1,549	244	63	54	139	231	160
4	Number of dressing and crushing plants.....	1,941	1,403	145	63	22	131	80	97
5	Net shipments of stone ⁶.....1,000 short tons..	284,947	221,302	22,362	1,090	597	22,467	10,114	7,015
6	Value of shipments ⁷.....\$1,000..	544,157	349,250	59,373	15,066	15,774	45,471	42,270	16,953
7	Value added in mining.....do....	399,385	256,290	43,177	10,752	11,902	34,127	31,963	11,174
8	Number of persons engaged, total.....	51,460	32,205	6,716	1,932	2,338	3,132	3,845	1,292
9	Production and development workers.....	44,513	27,618	6,006	1,723	2,100	2,680	3,336	1,050
10	All other employees.....	5,216	3,472	553	159	227	377	334	94
11	Proprietors and firm members.....	1,731	1,115	157	50	11	75	175	148
12	Performing manual labor.....	852	552	78	36	5	29	88	64
13	Man-hours worked by production and development workers, total.....1,000..	98,714	61,726	13,052	3,762	4,499	6,659	6,840	2,176
14	At quarries, total.....do....	55,681	36,067	7,021	1,385	2,224	3,586	4,214	1,184
15	Underground.....do....	4,899	3,813	141	57	803	54	18	13
16	Open quarry.....do....	40,172	24,596	5,539	1,227	1,228	2,972	3,554	1,056
17	Surface (including quarry shops and yards).....do....	10,610	7,658	1,341	101	193	560	642	115
18	At dressing and crushing plants.....do....	43,033	25,659	6,031	2,377	2,275	3,073	2,626	992
19	Principal expenses designated below, total ¹¹.....\$1,000..	330,629	210,398	38,961	10,744	10,835	25,349	24,073	10,269
20	Wages of production and development workers.....do....	157,863	100,194	19,379	5,547	5,681	12,089	11,262	3,711
21	Salaries of all other employees.....do....	27,560	17,983	3,201	847	1,111	2,116	1,814	488
22	Stone received for dressing or crushing.....do....	3,950	1,970	12,455	19	3,197	7,600	8,006	4,766
23	Supplies.....do....	98,428	61,412		2,953				
24	Fuel.....do....	17,254	12,248	1,119	735	124	1,409	1,172	447
25	Purchased electric energy.....do....	13,681	9,051	1,726	501	387	1,148	637	231
26	Contract work.....do....	11,893	7,540	1,081	142	335	987	1,182	626
27	Purchased machinery installed.....do....	47,365	33,484	3,867	409	390	3,870	4,708	637
28	Capital expenditures, total.....do....	47,799	32,745	4,052	445	561	3,670	5,398	928
29	Development and exploration of mineral property.....do....	1,554	1,258	57	45	19	50	35	90
30	Preparation plant construction.....do....	9,342	5,616	815	20	126	754	1,762	249
31	Other construction.....do....	2,945	2,071	110	24	49	442	205	44
32	New machinery and equipment.....do....	28,110	19,746	2,431	316	305	1,915	3,135	262
33	Used plant and equipment.....do....	5,848	4,054	639	40	62	509	261	283
34	Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....1,000..	3,041	2,255	254	49	43	217	151	72
35	Per production worker.....	68	82	42	28	20	81	45	69
36	Prime movers.....1,000..	2,106	1,619	145	17	19	141	108	57
37	Electric motors driven by purchased energy.....do....	935	636	109	32	24	76	43	15
38	Horsepower rating of electric motors driven by energy generated and used at the same establishment.....do....	69	59	2	...	5	1	1	1
39	Energy used.....million kwh equivalent..	7,627	5,179	501	574	91	507	567	208
40	Coal.....1,000 short tons..	197	115	8	58	5	6	5	...
41	Fuel oils.....1,000 barrels..	1,566	1,147	114	37	2	114	125	27
42	Gas (natural and manufactured).....million cu. ft..	1,703	1,228	30	23	...	9	134	279
43	Electric energy purchased.....million kwh..	860	566	124	32	32	60	31	15
44	Electric energy generated and used.....do....	74	69	2	...	...	1	1	1

See footnotes at end of table.

ESTABLISHMENTS, BY PRINCIPAL KIND OF STONE: 1954, 1939, 1929, 1919, 1909, 1902, 1889, 1880, 1870, 1860, 1850, AND 1840
size of establishments included for each year, see INTRODUCTION)

1939								1929 ¹							
Total ³	Limestone	Granite	Slate	Marble	Trap rock	Sand-stone	Stone, n.e.c.	Total	Lime-stone	Granite	Slate	Marble	Trap rock	Sand-stone	Stone, n.e.c.
1,324	768	199	70	31	101	117	60	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	2,081	929	406	120	70	137	215	204
1,658	980	242	79	44	120	127	61	2,279	1,004	434	130	88	144	245	234
1,375	852	158	76	27	116	89	52	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
94,351	70,450	7,422	484	253	9,822	3,283	2,637	121,444	86,608	8,364	682	549	12,447	4,960	7,834
102,973	60,236	15,132	5,568	5,092	9,659	4,758	2,528	169,608	86,226	30,381	10,486	7,539	15,544	10,957	8,475
(NA)	(NA)	(NA)	(NA)	(NA)	7,359	(NA)	1,996	(NA)	(NA)	24,961	9,163	6,422	12,271	8,630	6,348
⁸ 34,212	⁸ 21,145	⁸ 4,913	⁸ 1,516	⁸ 1,452	2,226	⁸ 1,916	967	(NA)	(NA)	11,199	4,458	3,603	3,478	4,148	2,305
⁸ 30,531	⁸ 18,792	⁸ 4,417	⁸ 1,341	⁸ 1,405	1,910	⁸ 1,737	858	48,235	22,267	10,037	4,098	3,350	3,053	3,589	1,841
⁸ 2,859	⁸ 1,824	⁸ 384	⁸ 115	⁸ 41	278	⁸ 132	79	(NA)	(NA)	883	274	246	374	467	303
⁸ 822	⁸ 529	⁸ 112	⁸ 60	⁸ 6	38	⁸ 47	30	(NA)	(NA)	279	86	7	51	92	161
⁸ 367	⁸ 223	⁸ 59	⁸ 33	⁸ 2	14	⁸ 19	17	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
(NA)	(NA)	⁸ 8,841	⁸ 2,611	⁸ 2,973	4,037	⁸ 3,131	1,970	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
(NA)	(NA)	¹⁰ 7,318	¹⁰ 2,078	¹⁰ 2,925	¹⁰ 2,652	¹⁰ 2,698	¹⁰ 1,439								
(NA)	(NA)	¹⁰ 24	¹⁰ 88	¹⁰ 538	...	¹⁰ 72	¹⁰ 66								
(NA)	(NA)	¹⁰ 7,008	¹⁰ 1,931	¹⁰ 2,303	¹⁰ 2,472	¹⁰ 2,562	¹⁰ 1,353								
(NA)	(NA)	¹⁰ 286	¹⁰ 59	¹⁰ 84	¹⁰ 180	¹⁰ 64	¹⁰ 20	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
⁸ 14,818	⁸ 10,909	¹⁰ 1,383	¹⁰ 485	¹⁰ 43	¹⁰ 1,107	¹⁰ 385	¹⁰ 506								
⁸ 58,937	⁸ 36,467	⁸ 8,146	⁸ 2,748	⁸ 1,543	5,416	⁸ 2,970	1,522	(NA)	(NA)	20,662	6,954	5,022	8,879	7,727	5,264
⁸ 29,821	⁸ 18,328	⁸ 4,156	⁸ 1,252	⁸ 1,100	2,465	⁸ 1,651	800	58,582	26,558	12,640	4,884	3,292	4,498	4,304	2,406
⁸ 6,391	⁸ 4,036	⁸ 937	⁸ 232	⁸ 105	651	⁸ 230	190	(NA)	(NA)	2,602	747	613	1,108	1,096	731
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
⁸ 13,294	⁸ 7,878	⁸ 1,956	⁸ 881	⁸ 139	1,346	⁸ 742	313	24,816	14,553	3,619	662	554	2,202	1,597	1,629
⁸ 4,094	⁸ 2,797	⁸ 392	⁸ 113	⁸ 87	418	⁸ 180	101	4,668	2,773	653	192	157	388	316	189
⁸ 4,632	⁸ 2,897	⁸ 655	⁸ 242	⁸ 101	504	⁸ 137	95	6,596	3,386	1,109	442	388	651	363	257
⁸ 705	⁸ 531	⁸ 50	⁸ 28	⁸ 11	32	⁸ 30	23	(NA)	(NA)	39	27	18	32	51	52
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	656	207	193	990	397	383
⁸ 950	⁸ 575	⁸ 109	⁸ 5	⁸ 1	137	⁸ 23	34	(NA)	(NA)	1,003	134	298	231	351	223
⁸ 3,166	⁸ 2,179	⁸ 319	⁸ 59	⁸ 9	284	⁸ 52	136								
⁸ 847	⁸ 528	⁸ 96	⁸ 17	⁸ 22	102	⁸ 41	30								
⁸ 1,010	⁸ 703	⁸ 105	⁸ 30	⁸ 18	97	⁸ 36	21								
33	38	24	22	13	51	20	25	14	16	11	8	9	21	11	16
⁸ 507	⁸ 375	⁸ 46	⁸ 7	⁸ 8	41	⁸ 20	10	206	116	32	8	6	19	16	9
⁸ 503	⁸ 328	⁸ 59	⁸ 23	⁸ 10	56	⁸ 16	11	450	234	76	26	24	45	25	20
⁸ 74	⁸ 59	⁸ 4	...	⁸ 6	4	⁸ 1	...	(NA)	(NA)	2	...	...	...	...	...
⁸ 4,149	⁸ 2,895	⁸ 393	⁸ 141	⁸ 206	281	⁸ 157	46	(NA)	(NA)	796	307	409	495	551	210
⁸ 371	⁸ 274	⁸ 25	⁸ 15	⁸ 25	20	⁸ 11	1								
⁸ 245	⁸ 128	⁸ 61	⁸ 3	⁸ 2	19	⁸ 23	8								
⁸ 37	⁸ 24	⁸ 10	...	...	...	⁸ 3	...								
⁸ 306	⁸ 183	⁸ 38	⁸ 15	⁸ 8	23	⁸ 6	6	(NA)	(NA)	57	19	22	31	23	16
⁸ 39	⁸ 32	⁸ 2	...	⁸ 1	1	...	...	(NA)	(NA)	1	1	...	...	...	...

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 1A.—COMPARATIVE STATISTICS FOR STONE QUARRIES IN THE UNITED STATES, EXCEPT CRUSHED AND BROKEN STONE QUARRIES INCLUDED IN MANUFACTURING
(For explanation of line captions and for statement on the minimum

Item	1919 ¹						
	Total	Limestone	Granite	Slate	Marble	Trap rock	Sandstone
1 Number of operating companies.....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
2 Number of establishments.....	1,844	895	358	101	48	163	279
3 Number of quarries.....	1,951	925	381	104	62	174	305
4 Number of dressing and crushing plants.....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
5 Net shipments of stone ⁶.....1,000 short tons..	67,907	49,715	4,420	409	331	7,745	5,287
6 Value of shipments ⁷.....\$1,000..	102,057	52,944	18,279	5,721	4,398	9,658	11,057
7 Value added in mining.....do....	75,055	37,134	14,472	4,575	3,600	6,866	8,408
8 Number of persons engaged, total.....	48,293	24,705	8,951	3,852	1,891	3,791	5,103
9 Production and development workers.....	43,152	22,069	8,049	3,513	1,732	3,336	4,453
10 All other employees.....	3,836	2,003	574	275	152	378	454
11 Proprietors and firm members.....	1,305	633	328	64	7	77	196
12 Performing manual labor.....	424	175	145	21	3	20	60
13 Man-hours worked by production and development workers, total.....1,000..							
14 At quarries, total.....do....							
15 Underground.....do....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
16 Open quarry.....do....							
17 Surface (including quarry shops and yards).....do....							
18 At dressing and crushing plants.....do....							
19 Principal expenses designated below, total ¹¹.....\$1,000..	79,902	43,463	13,591	4,683	2,504	7,534	8,127
20 Wages of production and development workers.....do....	45,699	23,926	8,588	3,128	1,452	3,991	4,614
21 Salaries of all other employees.....do....	7,201	3,727	1,196	409	254	751	864
22 Stone received for dressing or crushing.....do....	...	...	...	...	...	...	...
23 Supplies.....do....	18,499	10,968	2,593	632	552	2,031	1,723
24 Fuel.....do....	5,285	2,897	834	229	148	563	614
25 Purchased electric energy.....do....	2,219	1,279	261	189	77	157	256
26 Contract work.....do....	999	666	119	96	21	41	56
27 Purchased machinery installed.....do....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
28 Capital expenditures, total.....do....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
29 Development and exploration of mineral property.....do....	1,280	765	157	61	31	132	134
30 Preparation plant construction.....do....							
31 Other construction.....do....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
32 New machinery and equipment.....do....							
33 Used plant and equipment.....do....							
34 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....1,000..	380	214	56	21	16	37	36
35 Per production worker.....	9	10	7	6	9	11	8
36 Prime movers.....1,000..	223	127	35	9	6	23	23
37 Electric motors driven by purchased energy.....do....	157	87	21	12	10	14	13
38 Horsepower rating of electric motors driven by energy generated and used at the same establishment.....do....	19	11	2	...	1	...	5
39 Energy used.....million kwh equivalent..	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
40 Coal.....1,000 short tons..	1,093	680	117	44	31	87	134
41 Fuel oils.....1,000 barrels..	70	33	13	...	...	15	9
42 Gas (natural and manufactured).....million cu. ft..	153	6	...	...	...	...	147
43 Electric energy purchased.....million kwh..	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
44 Electric energy generated and used.....do....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)

See footnotes at end of table.

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[illegible]

Table 1A.—COMPARATIVE STATISTICS FOR STONE QUARRIES IN THE UNITED STATES, EXCEPT CRUSHED AND BROKEN STONE QUARRIES INCLUDED IN MANUFACTURING
(For explanation of line captions and for statement on the minimum

Item	1889					
	Total (includes quarries at lime plants)	Limestone (includes quarries at lime plants)	Granite and Trap rock	Slate	Marble	Sandstone
1 Number of operating companies.....	888	(NA)	814	(NA)	74	(NA)
2 Number of establishments.....	...	...	...	...	...	...
3 Number of quarries.....	4,163	1,954	874	212	103	1,020
4 Number of dressing and crushing plants.....	...	...	...	...	...	...
5 Net shipments of stone ⁶.....1,000 short tons..	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
6 Value of shipments ⁷.....\$1,000..	53,036	19,095	14,464	3,483	3,488	12,506
7 Value added in mining.....do....	45,113	14,868	13,018	3,201	2,832	11,194
8 Number of persons engaged, total.....	82,374	30,644	22,313	6,170	4,529	18,718
9 Production and development workers.....	77,698	28,741	21,276	5,874	4,275	17,532
10 All other employees.....	4,676	1,903	1,037	296	254	1,186
11 Proprietors and firm members.....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
12 Performing manual labor.....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
13 Man-hours worked by production and development workers, total.....1,000..	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
14 At quarries, total.....do....						
15 Underground.....do....						
16 Open quarry.....do....						
17 Surface (including quarry shops and yards).....do....	38,479	14,349	11,067	2,501	2,465	8,097
18 At dressing and crushing plants.....do....						
19 Principal expenses designated below, total ¹¹.....\$1,000..						
20 Wages of production and development workers.....do....						
21 Salaries of all other employees.....do....	30,556	8,980	8,822	2,219	1,809	6,785
22 Stone received for dressing or crushing.....do....						
23 Supplies.....do....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
24 Fuel.....do....	7,923	4,227	1,446	282	656	1,312
25 Purchased electric energy.....do....						
26 Contract work.....do....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
27 Purchased machinery installed.....do....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
28 Capital expenditures, total.....do....						
29 Development and exploration of mineral property.....do....						
30 Preparation plant construction.....do....						
31 Other construction.....do....	76	22	15	12	11	16
32 New machinery and equipment.....do....						
33 Used plant and equipment.....do....						
34 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....1,000..	76	22	15	12	11	16
35 Per production worker.....	1	1	1	2	3	1
36 Prime movers.....1,000..	76	22	15	12	11	16
37 Electric motors driven by purchased energy.....do....	...	...	...	...	...	...
38 Horsepower rating of electric motors driven by energy generated and used at the same establishment.....do....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
39 Energy used.....million kwh equivalent..						
40 Coal.....1,000 short tons..						
41 Fuel oils.....1,000 barrels..						
42 Gas (natural and manufactured).....million cu. ft..	76	22	15	12	11	16
43 Electric energy purchased.....million kwh..						
44 Electric energy generated and used.....do....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)

NA Not available.

¹Excludes data for nonproducing operations as follows: for 1929, limestone, 1 establishment; granite, 2 establishments; marble, 6 establishments; and sandstone, 3 establishments; for 1919, limestone, 1 establishment; marble, 1 establishment; and sandstone, 1 establishment.

²Data for 4 dimension trap rock quarries are included with those for stone, n.e.c., quarries to avoid approximately disclosing figures of individual companies.

³Includes data for 5 nonproducing operations which were not distributed by kind of stone quarry.

⁴The value of lime produced at establishments including a quarry was \$9,336 thousand.

⁵Probably includes separately operated stone dressing plants.

⁶For 1954, represents net shipments (gross shipments less stone received for dressing or crushing) of rough and dressed dimension stone, and crushed and broken stone. For 1939, 1929, and 1919, represents production.

⁷For 1954, represents gross value of shipments and contains some duplication due to the inclusion of shipments of stone to other establishments in the same industry for dressing or crushing. For all stone quarries combined, this duplication amounted to less than one percent of the total value of shipments. For earlier years, represents value of products.

⁸Excludes data for dimension stone dressing plants operated in conjunction with quarries. The value added in dressing stone at such operations was approximately \$1,555 thousand for plants at limestone quarries, \$2,266 thousand for granite operations, \$1,405 for slate operations, \$2,383 for marble operations, \$1 thousand for trap rock operations, and \$313 thousand for sandstone operations.

⁹Figures for average employment were reduced to a 300-day basis for establishments which operated for a shorter period.

¹⁰Excludes man-hours worked on inactive days when the establishment was not engaged in production or development work. Such man-hours were not distributed by department. See also footnote 8.

¹¹Excludes the cost of stone received for dressing or crushing for 1939, 1929, 1902, 1889, 1880, and 1870. Excludes the cost of contract work for 1889 and earlier years.

¹²Represents cost of explosives.

¹³Less than 0.5 horsepower.

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ESTABLISHMENTS, BY PRINCIPAL KIND OF STONE: 1954, 1939, 1929, 1919, 1909, 1902, 1889, 1880, 1870, 1860, 1850, AND 1840—Continued
size of establishments included for each year, see INTRODUCTION)

1880					1870				1860			1850			1840	
Total	Lime-stone and Marble	Granite and Trap rock	Slate	Sand-stone	Total	Marble	Slate	Stone, except marble and slate	Total ⁵	Slate	Marble and Other stone, except slate ⁵	Total ⁵	Slate	Marble and Other stone, except slate ⁵	(Granite, Marble and Other stone)	
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	1
(NA)	(NA)	(NA)	(NA)	(NA)	1,120	22	101	997	1,828	22	1,806	1,149	5	1,144		2
1,525	616	313	94	502	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)		3
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)		4
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	5
18,356	6,857	5,189	1,530	4,780	12,086	804	1,311	9,971	16,531	287	16,244	8,209	29	8,180		6
(NA)	(NA)	(NA)	(NA)	(NA)	10,950	767	1,191	8,992	11,121	223	10,898	5,732	28	5,704		7
39,723	15,646	11,477	3,033	9,567	15,117	795	1,749	12,573	15,749	370	15,379	10,081	80	10,001		8
39,723	15,646	11,477	3,033	9,567	15,117	795	1,749	12,573	15,749	370	15,379	10,081	80	10,001	7,859	9
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	10
																11
																12
																13
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	14
																15
																16
																17
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	18
																19
																20
																21
12,192	12,61	12,70	12,33	12,28	1,136	37	120	979	5,410	64	5,346	2,477	1	2,476	(NA)	22
																23
																24
																25
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	26
																27
																28
																29
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	30
																31
																32
																33
(NA)	(NA)	(NA)	(NA)	(NA)	4	1	1	2	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	34
																35
																36
																37
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	38
																39
																40
																41
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	42
																43
																44
																45

Table 1B.—COMPARATIVE STATISTICS FOR CRUSHED AND BROKEN STONE QUARRIES INCLUDED IN MANUFACTURING ESTABLISHMENTS: 1954, 1939, and 1929

(For explanation of line captions, see INTRODUCTION)

Item	1954 ¹	1939 ¹	1929 ¹
Number of operating companies.....	161	197	(NA)
Number of establishments.....	255	(NA)	238
Number of quarries.....	255	276	252
Quantity of crushed and broken stone.....1,000 short tons..	81,157	39,276	57,644
Produced and used at the same establishment in—			
Cement manufacture.....do..	59,150	29,072	37,496
Lime manufacture.....do..	10,839	6,955	8,403
Shipments.....do..	11,168	3,249	11,745
Value of shipments.....\$1,000..	² 118,847	21,975	31,032
Number of production and development workers.....	(NA)	6,827	10,033
Man-hours worked by production and development workers at quarries.....1,000..	12,577	(NA)	(NA)
Principal expenses designated below, total.....\$1,000..	45,228	13,286	³ 21,055
Wages of production and development workers.....do..	23,416	7,839	12,630
Supplies, fuel, purchased electric energy, and contract work.....do..	21,812	5,447	³ 8,425

NA Not available. ¹In 1954, represents quarries included in establishments classified in the paving mixtures and blocks industry; the hydraulic cement industry; the lime industry; and the lumber and construction materials industry. In 1939 and 1929, represents quarries operated in conjunction with cement and lime plants. ²For comparability with earlier years, includes an estimated \$100 million representing the value of crushed and broken limestone, calcareous marl, and sandstone produced and consumed at the same establishment in the manufacture of cement and lime. ³Excludes the cost of contract work.

Table 2.—SELECTED STATISTICS FOR STONE QUARRIES IN THE UNITED STATES, BY PRINCIPAL KIND OF STONE AND BY INDUSTRY: 1954

(For explanation of column captions, see INTRODUCTION)

Principal kind of stone and industry classification	Number of quarries	Stone shipped and stone used at the same establishment in cement or lime manufacture ¹ (1,000 short tons)	Value of shipments ² (\$1,000)	Production and development workers		Cost of supplies, stone received for dressing or crushing, fuel, purchased electric energy, and contract work (\$1,000)
				Man-hours worked (1,000)	Wages (\$1,000)	
All stone quarries, total.....	2,695	366,832	563,004	111,291	181,279	167,018
Dimension stone quarries:						
Classified in mineral industries ³	352	2,927	18,945	5,893	7,938	3,846
Classified in manufactures ⁴	206		59,958	17,262	27,426	13,475
Crushed and broken stone quarries:						
Classified in mineral industries.....	1,882	282,748	465,254	75,559	122,499	127,885
Included in manufactures and wholesale trade ⁵	255	81,157	18,847	12,577	23,416	21,812
Limestone quarries, total.....	1,792	300,995	365,798	74,055	123,066	113,511
Dimension limestone quarries:						
Classified in mineral industries ³	65	455	3,754	872	1,429	779
Classified in manufactures ⁴	41	614	16,739	4,519	8,050	2,938
Crushed and broken limestone quarries:						
Classified in mineral industries.....	1,443	220,233	328,757	56,335	90,715	88,504
Included in manufactures and wholesale trade ⁵	243	79,693	16,548	12,329	22,872	21,290
Granite quarries, total.....	247	22,627	59,728	13,100	19,485	16,554
Dimension granite quarries:						
Classified in mineral industries ³	86	289	5,738	1,769	2,404	1,167
Classified in manufactures ⁴	59	380	22,760	5,676	9,402	6,394
Crushed and broken granite quarries:						
Classified in mineral industries.....	99	21,693	30,875	5,607	7,573	8,820
Included in manufactures and wholesale trade ⁵	3	265	355	48	106	173
Slate quarries, total.....	63	1,090	15,066	3,762	5,547	4,350
Dimension slate quarries (all classified in manufactures) ⁴ ..	52	162	6,904	2,564	3,598	1,235
Crushed and broken slate quarries (all classified in mineral industries).....	11	928	8,162	1,198	1,949	3,115
Marble quarries, total.....	54	597	15,774	4,499	5,681	4,043
Dimension marble quarries:						
Classified in mineral industries ³	31	65	3,491	1,245	1,505	604
Classified in manufactures ⁴	6	63	7,141	2,458	3,056	1,800
Crushed and broken marble quarries (all classified in mineral industries).....	17	469	5,142	796	1,120	1,639
Trap rock quarries, total.....	144	23,544	46,869	6,834	12,500	11,318
Crushed and broken trap rock quarries:						
Classified in mineral industries.....	139	22,467	45,471	6,659	12,089	11,144
Included in manufactures and wholesale trade ⁵	5	1,077	1,398	175	411	174
Sandstone quarries, total.....	231	10,114	42,270	6,840	11,262	10,997
Dimension sandstone quarries:						
Classified in mineral industries ³	115	346	5,292	1,752	2,273	1,173
Classified in manufactures ⁴	30	195	5,788	1,805	3,019	1,019
Crushed and broken sandstone quarries (all classified in mineral industries).....	86	9,573	31,190	3,283	5,970	8,805
Stone, n.e.c., quarries, total ⁶	164	7,137	17,499	2,201	3,738	6,245
Dimension stone, n.e.c., quarries:						
Classified in mineral industries ³	55	114	670	255	327	123
Classified in manufactures ⁴	18	12	626	240	301	89
Crushed and broken stone, n.e.c., quarries:						
Classified in mineral industries.....	87	6,889	15,657	1,681	3,083	5,858
Included in manufactures and wholesale trade ⁵	4	122	546	25	27	175

¹For each specified kind of stone quarry represents only stone of the kind specified. The totals for "all stone quarries," however, include all stone produced, irrespective of kind, at stone quarries. See also table 1, footnote 6. ²See table 1, footnote 7. ³Represents establishments not including a dressing plant. In the report, Dimension Stone, these are designated as "quarries only." ⁴Represents establishments including both a quarry and dressing plant. In the report, Dimension Stone, these are designated as "quarries with dressing plant." ⁵Represents statistics for the quarry only at cement, lime, bituminous concrete, and ready-mixed concrete plants. ⁶See table 1, footnote 2. All dimension trap rock quarries were classified in the mineral industries.

Table 3.—NUMBER OF STONE QUARRIES IN THE UNITED STATES, BY PRINCIPAL

	Geographic division and State	All stone quarries				
		Total	Dimension stone quarries		Crushed and broken stone quarries	
			Classified in mineral industries ¹	Classified in manufactures ²	Classified in mineral industries	Included in manufactures and wholesale trade ³
1	United States, total.....	2,695	352	206	1,882	255
2	New England, total.....	137	31	41	50	15
3	Maine.....	21	2	8	9	2
4	New Hampshire.....	5	2	2	...	1
5	Vermont.....	37	11	20	4	2
6	Massachusetts.....	39	5	8	19	7
7	Rhode Island.....	6	2	1	3	...
8	Connecticut.....	29	9	2	15	3
9	Middle Atlantic, total.....	398	50	51	242	55
10	New York.....	101	9	20	55	17
11	New Jersey.....	28	...	...	28	...
12	Pennsylvania.....	269	41	31	159	38
13	East North Central, total.....	568	54	38	435	41
14	Ohio.....	140	9	6	105	20
15	Indiana.....	97	14	8	72	3
16	Illinois.....	151	8	...	137	6
17	Michigan.....	42	1	2	34	5
18	Wisconsin.....	138	22	22	87	7
19	West North Central, total.....	514	45	14	428	27
20	Minnesota.....	49	13	6	30	...
21	Iowa.....	133	1	...	125	7
22	Missouri.....	200	17	2	171	10
23	South Dakota.....	18	6	2	9	1
24	Nebraska.....	26	...	...	24	2
25	Kansas.....	88	8	4	69	7
26	South Atlantic, total.....	345	49	25	243	28
27	Delaware.....	1	...	...	1	...
28	Maryland.....	35	10	1	19	5
29	Virginia.....	85	4	6	64	11
30	West Virginia.....	60	1	...	55	4
31	North Carolina.....	31	7	6	18	...
32	South Carolina.....	18	1	...	16	1
33	Georgia.....	50	23	11	13	3
34	Florida.....	65	3	1	57	4
35	East South Central, total.....	261	52	6	183	20
36	Kentucky.....	88	4	...	84	...
37	Tennessee.....	135	44	3	80	8
38	Alabama.....	36	4	3	18	11
39	Mississippi.....	2	...	...	1	1
40	West South Central, total.....	121	24	11	59	27
41	Arkansas.....	27	13	2	10	2
42	Louisiana.....	2	...	...	...	2
43	Oklahoma.....	29	5	2	20	2
44	Texas.....	63	6	7	29	21
45	Mountain, total.....	126	33	9	69	15
46	Montana.....	17	...	...	15	2
47	Idaho.....	13	1	2	9	1
48	Wyoming.....	8	...	...	7	1
49	Colorado.....	32	13	5	12	2
50	New Mexico.....	3	1	1	1	...
51	Arizona.....	21	9	1	7	4
52	Utah.....	17	3	...	11	3
53	Nevada.....	15	6	...	7	2
54	Pacific, total.....	225	14	11	173	27
55	Washington.....	57	5	1	43	8
56	Oregon.....	48	2	2	41	3
57	California.....	120	7	8	89	16

See footnotes at end of table.

KIND OF STONE, BY INDUSTRY, AND BY GEOGRAPHIC DIVISIONS AND STATES: 1954

Limestone quarries					Granite quarries					
Total	Dimension limestone quarries		Crushed and broken limestone quarries		Total	Dimension granite quarries		Crushed and broken granite quarries		
	Classified in mineral industries ¹	Classified in manufactures ²	Classified in mineral industries	Included in manufactures and wholesale trade ³		Classified in mineral industries ¹	Classified in manufactures ²	Classified in mineral industries	Included in manufactures and wholesale trade ³	
1,792	65	41	1,443	243	247	86	59	99	3	1
20	...	...	11	9	53	21	23	8	1	2
3	...	...	1	2	12	2	7	3	...	3
...	...	...	...	...	4	2	2	...	...	4
5	...	...	3	2	7	3	4	...	...	5
7	...	...	3	4	17	5	7	4	1	6
1	...	...	1	...	4	2	1	1	...	7
4	...	...	3	1	9	7	2	...	...	8
220	6	...	160	54	14	6	4	4	...	9
61	...	...	45	16	5	4	1	...	...	10
4	...	...	4	...	4	...	...	4	...	11
155	6	...	111	38	5	2	3	...	...	12
502	24	23	414	41	12	6	4	2	...	13
120	...	...	100	20	...	...	...	...	...	14
91	10	8	70	3	...	...	...	...	...	15
144	4	...	134	6	...	...	...	...	...	16
39	...	1	33	5	1	...	...	1	...	17
108	10	14	77	7	11	6	4	1	...	18
469	15	9	418	27	25	19	4	2	...	19
33	1	4	28	...	16	12	2	2	...	20
131	1	...	123	7	...	...	...	...	...	21
189	9	1	169	10	1	1	...	...	...	22
7	...	...	6	1	8	6	2	...	...	23
26	...	...	24	2	...	...	...	...	...	24
83	4	4	68	7	...	...	...	...	...	25
192	7	1	157	27	83	26	12	45	...	26
...	...	...	...	...	1	...	...	1	...	27
17	2	...	10	5	4	2	...	2	...	28
59	2	...	47	10	6	...	...	6	...	29
31	...	...	27	4	19	...	...	19	...	30
10	...	...	10	...	12	4	3	5	...	31
3	...	...	2	1	13	1	...	12	...	32
12	1	...	8	3	28	19	9	...	...	33
60	2	1	53	4	...	...	...	...	...	34
201	5	1	175	20	1	...	...	1	...	35
84	1	...	83	...	...	...	...	...	...	36
87	4	...	75	8	1	...	...	1	...	37
28	...	1	16	11	...	...	...	...	...	38
2	...	...	1	1	...	...	...	...	...	39
86	6	6	47	27	7	2	4	1	...	40
11	2	1	6	2	1	...	...	1	...	41
2	...	...	...	2	...	...	...	...	...	42
22	1	...	19	2	3	1	2	...	...	43
51	3	5	22	21	3	1	2	...	...	44
43	2	...	26	15	11	1	2	8	...	45
5	...	...	3	2	3	...	...	3	...	46
2	...	...	1	1	...	...	...	...	...	47
5	...	...	4	1	1	...	...	1	...	48
10	2	...	6	2	3	1	2	...	...	49
1	...	...	1	...	...	...	...	...	...	50
5	...	...	1	4	3	...	...	3	...	51
10	...	...	7	3	...	...	...	...	...	52
5	...	...	3	2	1	...	...	1	...	53
59	...	1	35	23	41	5	6	28	2	54
16	...	...	9	7	7	1	1	5	...	55
6	...	...	4	2	3	1	1	1	...	56
37	...	1	22	14	31	3	4	22	2	57

Table 3.—NUMBER OF STONE QUARRIES IN THE UNITED STATES, BY PRINCIPAL

	Geographic division and State	Slate quarries			Marble quarries			
		Total	Dimension slate quarries (all classified in manufactures) ²	Crushed and broken slate quarries (all classified in mineral industries)	Total	Dimension marble quarries		Crushed and broken marble quarries (all classified in mineral industries)
						Classified in mineral industries ¹	Classified in manufactures ²	
1	United States, total.....	63	52	11	54	31	6	17
2	New England, total.....	18	17	1	8	8	...	...
3	Maine.....	1	1	...	...	...	...	...
4	New Hampshire.....	...	...	...	...	...	...	...
5	Vermont.....	17	16	1	8	8	...	...
6	Massachusetts.....	...	...	...	...	...	...	...
7	Rhode Island.....	...	...	...	...	...	...	...
8	Connecticut.....	...	...	...	...	...	...	...
9	Middle Atlantic, total.....	32	29	3	2	...	...	2
10	New York.....	15	14	1	1	...	...	1
11	New Jersey.....	...	...	...	1	...	...	1
12	Pennsylvania.....	17	15	2	...	...	...	...
13	East North Central, total.....	...	...	...	1	1	...	...
14	Ohio.....	...	...	...	...	...	...	...
15	Indiana.....	...	...	...	...	...	...	...
16	Illinois.....	...	...	...	1	1	...	...
17	Michigan.....	...	...	...	...	...	...	...
18	Wisconsin.....	...	...	...	...	...	...	...
19	West North Central, total.....	...	...	...	4	3	1	...
20	Minnesota.....	...	...	...	...	...	...	...
21	Iowa.....	...	...	...	...	...	...	...
22	Missouri.....	...	...	...	4	3	1	...
23	South Dakota.....	...	...	...	...	...	...	...
24	Kansas.....	...	...	...	...	...	...	...
25	South Atlantic, total.....	10	4	6	8	1	2	5
26	Maryland.....	1	...	1	1	...	...	1
27	Virginia.....	7	4	3	1	...	...	1
28	West Virginia.....	...	...	...	...	...	...	...
29	North Carolina.....	1	...	1	1	...	1	...
30	South Carolina.....	...	...	...	...	...	...	...
31	Georgia.....	1	...	1	5	1	1	3
32	Florida.....	...	...	...	...	...	...	...
33	East South Central, total.....	...	...	...	18	14	3	1
34	Kentucky.....	...	...	...	1	1	...	...
35	Tennessee.....	...	...	...	15	13	1	1
36	Alabama.....	...	...	...	2	...	2	...
37	West South Central, total.....	1	...	1	3	2	...	1
38	Arkansas.....	1	...	1	2	2	...	...
39	Oklahoma.....	...	...	...	...	...	...	...
40	Texas.....	...	...	...	1	...	...	1
41	Mountain, total.....	...	...	...	4	2	...	2
42	Montana.....	...	...	...	...	...	...	...
43	Idaho.....	...	...	...	...	...	...	...
44	Wyoming.....	...	...	...	...	...	...	...
45	Colorado.....	...	...	...	1	...	...	1
46	New Mexico.....	...	...	...	...	...	...	...
47	Arizona.....	...	...	...	1	...	...	1
48	Utah.....	...	...	...	...	...	...	...
49	Nevada.....	...	...	...	2	2	...	...
50	Pacific, total.....	2	2	...	6	...	...	6
51	Washington.....	...	...	...	5	...	...	5
52	Oregon.....	...	...	...	...	...	...	...
53	California.....	2	2	...	1	...	...	1

¹See table 2, footnote 3.²See table 2, footnote 4.³See table 2, footnote 5.

KIND OF STONE, BY INDUSTRY, AND BY GEOGRAPHIC DIVISIONS AND STATES: 1954--Continued

Trap rock quarries				Sandstone quarries				Stone, n.e.c., quarries					
Total	Dimension trap rock quarries (all classified in mineral industries) ¹	Crushed and broken trap rock quarries		Total	Dimension sandstone quarries		Crushed and broken sandstone quarries (classified in mineral industries)	Total	Dimension stone, n.e.c., quarries		Crushed and broken stone, n.e.c., quarries		
		Classified in mineral industries	Included in manu- factures and whole- sale trade ³		Classified in mineral industries ¹	Classified in manu- factures ²			Classified in mineral industries ¹	Classified in manu- factures ²	Classified in mineral industries	Included in manu- factures and whole- sale trade ³	
148	4	139	5	231	115	30	86	160	51	18	87	4	
27	1	22	4	5	...	1	4	6	1	...	4	1	2
...	4	...	...	4	1	...	...	1	...	3
...	1	...	...	...	1	4
...	5
12	...	10	2	1	...	1	...	2	...	...	2	...	6
...	1	...	...	1	...	7
15	1	12	2	...	...	...	...	1	1	...	...	...	8
37	...	37	...	64	25	11	28	29	13	7	8	1	9
4	...	4	...	12	5	4	3	3	...	1	1	1	10
19	...	19	...	...	...	...	...	...	...	...	...	...	11
14	...	14	...	52	20	7	25	26	13	6	7	...	12
2	...	2	...	39	19	9	11	12	4	2	6	...	13
...	19	9	6	4	1	...	...	1	...	14
...	4	4	...	...	2	...	...	2	...	15
...	1	...	...	1	5	3	...	2	...	16
...	2	1	1	...	...	...	...	...	...	17
2	...	2	...	13	5	2	6	4	1	2	1	...	18
...	6	2	...	4	10	6	...	4	...	19
...	20
...	2	...	...	2	...	21
...	1	1	...	...	5	3	...	2	...	22
...	3	...	...	3	...	...	...	...	...	23
...	2	1	...	1	3	3	...	...	...	24
8	...	8	...	14	5	...	9	30	10	6	13	1	25
5	...	5	...	2	2	...	...	5	4	1	...	...	26
3	...	3	...	2	1	...	1	7	1	2	3	1	27
...	8	1	...	7	2	...	...	2	...	28
...	7	3	2	2	...	29
...	2	...	...	2	...	30
...	2	1	...	1	2	1	1	...	...	31
...	5	1	...	4	...	32
...	35	29	2	4	6	4	...	2	...	33
...	3	2	...	1	...	...	...	...	...	34
...	27	24	2	1	5	3	...	2	...	35
...	5	3	...	2	1	1	...	...	...	36
1	...	1	...	13	11	...	2	10	3	1	6	...	37
...	8	7	...	1	4	2	1	1	...	38
...	2	2	...	...	2	1	...	1	...	39
1	...	1	...	3	2	...	1	4	...	...	4	...	40
8	1	7	...	38	19	7	12	22	8	...	14	...	41
1	...	1	...	4	...	...	4	4	...	...	4	...	42
5	...	5	...	4	1	2	1	2	...	...	2	...	43
...	1	...	...	1	1	...	...	1	...	44
...	15	9	3	3	3	1	...	2	...	45
...	1	...	1	...	1	1	...	...	...	46
...	4	3	1	...	8	6	...	2	...	47
...	6	3	...	3	1	...	...	1	...	48
2	1	1	...	3	3	...	...	2	...	...	2	...	49
65	2	62	1	17	5	...	12	35	2	2	30	1	50
19	1	18	...	3	3	...	...	7	...	...	6	1	51
32	1	30	1	1	...	...	1	6	...	1	5	...	52
14	...	14	...	13	2	...	11	22	2	1	19	...	53

Table 4.—NUMBER OF STONE QUARRIES IN THE UNITED STATES CLASSIFIED BY PRINCIPAL KIND OF STONE, BY INDUSTRY AND BY EMPLOYMENT SIZE OF QUARRY: 1954

Principal kind of stone and industry	Number of quarries, total	Number of quarries by employment size								
		No em- ployees	1-4 em- ployees	5-9 em- ployees	10-19 em- ployees	20-49 em- ployees	50-99 em- ployees	100-249 em- ployees	250-499 em- ployees	500-999 em- ployees
All stone quarries, total.....	2,695	145	682	476	618	543	151	64	13	3
Dimension stone quarries:										
Classified in mineral industries ¹	352	31	177	59	38	36	7	4	...	...
Classified in manufactures ²	206	18	49	25	32	33	23	18	6	2
Crushed and broken stone quarries:										
Classified in mineral industries.....	1,882	81	425	364	494	376	96	38	7	1
Included in manufactures and wholesale trade ³	255	15	31	28	54	98	25	4	...	...
Limestone quarries, total.....	1,792	79	390	307	482	394	94	38	6	2
Dimension limestone quarries:										
Classified in mineral industries ¹	65	9	36	6	3	9	2	...	...	...
Classified in manufactures ²	41	3	6	8	6	6	4	7	...	1
Crushed and broken limestone quarries:										
Classified in mineral industries.....	1,443	53	322	267	422	282	63	27	6	1
Included in manufactures and wholesale trade ³	243	14	26	26	51	97	25	4	...	...
Granite quarries, total.....	247	12	68	49	34	50	20	11	2	1
Dimension granite quarries:										
Classified in mineral industries ¹	86	3	37	17	14	11	4	...	...	...
Classified in manufactures ²	59	4	11	7	8	15	5	6	2	1
Crushed and broken granite quarries:										
Classified in mineral industries.....	99	5	18	25	11	24	11	5	...	...
Included in manufactures and wholesale trade ³	3	...	2	...	1	...	...	...	...	...
Slate quarries, total.....	63	6	12	6	15	7	16	1	...	...
Dimension slate quarries (all classified in manu- factures) ²	52	6	12	4	11	6	12	1	...	...
Crushed and broken slate quarries (all classified in mineral industries).....	11	...	...	2	4	1	4	...	...	...
Marble quarries, total.....	54	1	14	8	9	12	2	5	3	...
Dimension marble quarries:										
Classified in mineral industries ¹	31	1	8	7	4	9	...	2	...	...
Classified in manufactures ²	6	...	...	...	...	...	1	2	3	...
Crushed and broken marble quarries (all classified in mineral industries).....	17	...	6	1	5	3	1	1	...	...
Trap rock quarries, total.....	148	8	25	32	30	40	9	4	...	...
Dimension trap rock quarries (all classified in mineral industries) ¹	4	...	3	...	1	...	...	...	...	...
Crushed and broken trap rock quarries:										
Classified in mineral industries.....	139	8	21	31	27	39	9	4	...	...
Included in manufactures and wholesale trade ³	5	...	1	1	2	1	...	...	...	...
Sandstone quarries, total.....	231	23	77	43	40	37	5	4	2	...
Dimension sandstone quarries:										
Classified in mineral industries ¹	115	10	58	22	15	7	1	2	...	...
Classified in manufactures ²	30	4	8	3	6	6	...	2	1	...
Crushed and broken sandstone quarries (all classified in mineral industries).....	86	9	11	18	19	24	4	...	1	...
Stone quarries, n.e.c., total.....	160	16	96	31	8	3	5	1	...	...
Dimension stone quarries, n.e.c.:										
Classified in mineral industries ¹	51	8	35	7	1	...	...	...	...	...
Classified in manufactures ²	18	1	12	3	1	...	1	...	...	...
Crushed and broken stone quarries, n.e.c.:										
Classified in mineral industries.....	87	6	47	20	6	3	4	1	...	...
Included in manufactures and wholesale trade ³	4	1	2	1	...	...	...	...	...	...

¹See table 2, footnote 3.²See table 2, footnote 4.³See table 2, footnote 5.

DIMENSION STONE

14C-1

Dimension Stone

This report shows 1954 Census of Mineral Industries statistics for establishments classified in Industry Group 141, Dimension Stone, representing only quarries without dressing plants operated as part of the same establishment. Also included are related 1954 Census of Manufactures figures for dimension stone quarries operated in conjunction with dressing plants and included as part of the manufacturing Industry 3281, Cut stone and stone products. The total figures in this report thus represent all dimension stone quarries and all dressing plants operated in conjunction with such quarries.

The "Dimension stone" industries, as defined in the Standard Industrial Classification, represent establishments primarily engaged in mining or quarrying dimension stone. Also included are establishments primarily engaged in producing rough blocks and slabs. Establishments primarily engaged in dressing (shaping, polishing, or otherwise finishing) rough blocks and slabs are classified in the manufacturing Industry 3281. Included in the latter industry, according to the 1954 interpretation of the Standard Industrial Classification, are all establishments which dress dimension stone whether or not these include a quarry. Inclusion in this report of statistics for establishments in Industry 3281 which include a quarry provides complete statistics on all stone quarrying operations and figures more comparable with those for previous years. Separate figures are shown also for the two types of quarries throughout this report, quarries classified in the mineral industries being referred to as "Quarries only," whereas quarries included in establishments classified in manufacturing are referred to as "Quarries with dressing plants."

The separate industries included in Industry Group 141 are as follows:

- 1412--Dimension limestone
- 1413--Dimension granite
- 1414--Dimension slate
- 1415--Dimension marble
- 1416--Dimension trap rock
- 1417--Dimension sandstone
- 1419--Dimension stone, n.e.c.

Industry 1412, Dimension limestone, represents establishments primarily engaged in mining or quarrying dimension limestone, including related rocks such as dolomite, travertine, and calcareous tufa.

Industry 1413, Dimension granite, represents establishments primarily engaged in mining or quarrying dimension granite, including related rocks such as gneiss, syenite, diorite, and gabbro.

Industry 1414, Dimension slate, represents establishments primarily engaged in mining or quarrying roofing and other dimension slate. There were no such operations reported in the 1954 Census of Mineral Industries.

Industry 1415, Dimension marble, represents establishments primarily engaged in mining or quarrying marble, including serpentine (verde antique), dolomitic marble, and onyx marble.

Industry 1416, Dimension trap rock, represents establishments primarily engaged in mining or quarrying dimension trap rock (basalt, diabase, and related rocks). There were only four establishments classified in this industry in 1954 and separate statistics for these establishments could not be shown without approximately disclosing the figures of individual companies.

Accordingly, data for these operations are included with those for the Dimension stone, n.e.c., industry.

Industry 1417, Dimension sandstone, represents establishments primarily engaged in mining or quarrying dimension sandstone, including bluestone. Establishments primarily engaged in mining or quarrying and shaping grindstones, pulpstones, millstones, burrstones, and sharpening stones are classified in Industry 1462.

Industry 1419, Dimension stone, not elsewhere classified, represents establishments primarily engaged in mining or quarrying dimension stone, not elsewhere classified, such as mica schist, light colored volcanic rocks, argillite, and greenstone (except trap rock and diorite). Dimension soapstone is classified in Industry 1496.

The total value of shipments of dimension stone quarries in 1954 was \$78.9 million of which rough and dressed dimension stone amounted to \$74.4 million and other products, products purchased and resold without further processing, and receipts for services amounted to \$4.5 million. The value of shipments of quarries operated without dressing plants, those classified in the mineral industries, was \$18.9 million, of which \$17.9 million represented rough dimension stone. Quarries with dressing plants, those classified in the manufacturing industries, shipped rough dimension stone valued at \$9.8 million and dressed dimension stone valued at \$46.7 million.

Of the total value of shipments by dimension stone quarries, dimension limestone quarries accounted for \$20.5 million; dimension granite quarries, \$28.5 million; dimension slate quarries, \$6.9 million; dimension marble quarries, \$10.6 million; dimension sandstone quarries, \$11.1 million; and dimension trap rock and dimension stone, n.e.c., quarries, \$1.3 million. For quarries without dressing plants, dimension limestone quarries accounted for \$3.8 million, dimension granite quarries for \$5.7 million, dimension marble quarries for \$3.5 million, dimension sandstone quarries for \$5.3 million, and dimension trap rock and dimension stone, n.e.c., quarries for \$0.7 million.

The value of shipments figures represent gross value and some of them contain duplication due to the inclusion of the value of stone transferred from one quarry to other quarries for dressing. For all quarries with dressing plants, the cost of rough stone received for dressing amounted to approximately \$1.5 million or about 2.5 percent of the total value of shipments of these quarries. Included in the cost of stone received for dressing are freight and other transportation charges, where applicable. Separate figures on such charges are not available. For dimension limestone quarries with dressing plants, dimension slate quarries with plants, and dimension sandstone quarries with plants, the cost of rough stone received for dressing amounted to 1 percent or less for each group of quarries. For dimension granite quarries with plants and dimension marble quarries with plants, the cost of such stone amounted to about 3 percent and 8 percent, respectively.

The Bureau of Mines also collected statistics on dimension stone in 1954 as part of its annual commodity survey program on minerals. A comparison of the figures tabulated by the two agencies on dimension stone is shown on following page.

The Bureau of the Census figures represent shipments of rough dimension stone from separately operated quarries as well as shipments of rough dimension stone and dressed dimension stone from quarries with associated dressing plants located at the quarry site. No figures are included in the Census tabula-

tions in this report for shipments of dressed dimension stone from dressing plants not operated in conjunction with a quarry, even though such a dressing plant may be an integral part of a company engaged in quarrying and dressing stone. Bureau of Mines production data are compiled on the basis of quantities and values of sales of both rough blocks and finished products by primary producers. These Bureau of Mines figures are compiled on a company basis. For example, in the case of a stone company having three establishments, (1) a quarry with no dressing plant; (2) a quarry with a dressing plant; and (3) a separately operated dressing plant, the Census figures would include only the first two types of establishments, whereas the Bureau of Mines would compile its figures on output of stone for this company on the basis of the figures reported by all three types of establishments. Thus, the Bureau of Mines would show less rough dimension stone shipped for this company and more dressed dimension stone shipped than would be shown by the Bureau of the Census. There is a considerable tonnage loss in fabricating dressed stone from rough blocks. Accordingly, it would be expected that the aggregate Bureau of Mines tonnage would be less than that of the Bureau of Census even though the operations of the same companies were covered by both agencies. Other explanations of some of the differences between the figures of the two agencies are probably differences in coverage and differences in the respondent's specification of the kind of stone produced.

Kind of dimension stone	Bureau of the Census, net shipments (1,000 short tons)	Bureau of Mines, sold or used (1,000 short tons)
All dimension stone, total	2,948	2,534
Limestone, total....	1,246	1,174
Rough.....	868	694
Dressed.....	378	480
Granite, total.....	738	634
Rough.....	511	406
Dressed.....	227	228
Slate (dressed).....	162	152
Marble, total.....	109	85
Rough.....	72	85
Dressed.....	37	
Trap rock (rough)...	34	52
Sandstone, total....	547	402
Rough.....	402	173
Dressed.....	145	229
Stone, n.e.c., total	112	35
Rough.....	102	35
Dressed.....	10	

Table 1A.—COMPARATIVE STATISTICS FOR DIMENSION STONE

(For explanation of line captions and for statement on the minimum

	Item	Dimension stone quarries, total				Dimension limestone quarries				Di- mension granite quarries, total (1954)
		Total (1954)	Quarries only		Quarries with dressing plants (1954)	Total (1954)	Quarries only		Quarries with dressing plants (1954)	
			1954	1939			1954	1939		
1	Number of operating companies.....	523	322	1150	201	103	63	133	40	136
2	Number of establishments.....	555	351	(NA)	204	106	65	(NA)	41	143
3	Number of quarries.....	558	352	179	206	106	65	40	41	145
4	Number of dressing plants.....	204	...	...	204	41	...	...	41	57
5	Net shipments of dimension stone ².....1,000 short tons..	2,695	1,269	(NA)	1,426	1,069	455	(NA)	614	669
6	Value of shipments, total ³.....\$1,000..	78,903	18,945	6,356	59,958	20,493	3,754	1,541	16,739	28,498
7	Rough dimension stone.....do....	27,685	17,927	(NA)	9,758	6,519	3,170	(NA)	3,349	10,218
8	Dressed dimension stone.....do....	46,683	...	...	46,683	12,721	...	...	12,721	17,071
9	Other products and services.....do....	4,535	1,018	(NA)	3,517	1,253	584	(NA)	669	1,209
10	Value added in quarrying and dressing.....do....	61,774	15,155	5,283	46,619	16,686	2,942	1,368	13,744	20,976
11	Number of persons engaged, total.....	12,792	3,523	2,993	9,269	2,948	572	685	2,376	4,112
12	Production and development workers.....	11,389	3,068	2,725	8,321	2,693	472	617	2,221	3,662
13	All other employees.....	936	156	165	780	157	28	55	129	347
14	Proprietors and firm members.....	467	299	103	168	98	72	13	26	103
15	Performing manual labor.....	253	133	...	120	62	41	...	21	54
16	Man-hours worked by production and development workers, total.....1,000..	23,155	5,893	(NA)	17,262	5,391	872	(NA)	4,519	7,445
17	At quarries, total.....do....	12,877	5,893	(NA)	6,984	2,945	872	(NA)	2,073	4,020
18	Underground.....do....	920	848	...	72	26	11	...	15	138
19	Open quarry.....do....	10,126	4,493	...	5,633	2,604	786	...	1,818	2,996
20	Surface (including quarry shops and yards).....do....	1,831	552	...	1,279	315	75	...	240	886
21	At dressing plants.....do....	10,278	...	...	10,278	2,446	...	...	2,446	3,425
22	Principal expenses designated below, total.....\$1,000..	57,548	12,471	4,080	45,077	14,076	2,335	894	11,741	21,262
23	Wages of production and development workers.....do....	35,364	7,938	2,659	27,426	9,479	1,429	632	8,050	11,806
24	Salaries of all other employees.....do....	4,863	687	348	4,176	880	127	89	753	1,895
25	Rough stone received for dressing.....do....	1,512	...	...	1,512	75	...	...	75	765
26	Supplies ⁴.....do....	11,544	2,482	539	9,062	2,686	586	80	2,100	5,184
27	Fuel.....do....	1,204	401	192	803	335	87	36	248	372
28	Purchased electric energy.....do....	1,853	389	310	1,464	417	54	53	363	888
29	Contract work.....do....	1,208	574	32	634	204	52	4	152	352
30	Purchased machinery installed.....do....	2,664	891	...	1,773	862	158	...	704	826
31	Capital expenditures, total.....do....	2,856	947	(NA)	1,909	772	125	(NA)	647	865
32	Development and exploration of mineral property.....do....	178	69	...	109	39	...	...	39	44
33	Plant construction.....do....	179	52	19	127	15	...	...	15	73
34	Other construction.....do....	214	34	...	180	34	...	...	34	8
35	New machinery and equipment.....do....	1,794	581	78	1,213	593	89	18	504	590
36	Used plant and equipment.....do....	491	211	42	280	91	36	10	55	150
37	Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....1,000..	262	94	59	168	72	18	17	54	85
38	Per production worker.....do....	23	31	22	20	27	37	28	25	23
39	Prime movers.....1,000..	142	69	23	73	36	13	5	23	39
40	Electric motors driven by purchased energy.....do....	120	25	36	95	36	5	12	31	46
41	Horsepower rating of electric motors driven by energy generated at the establishment.....do....	6	5	1	1	...	...	...	...	1
42	Energy used.....million kwh equivalent..	744	142	275	602	223	34	39	189	219
43	Coal.....1,000 short tons..	43	2	28	41	16	1	4	15	7
44	Fuel oils.....1,000 barrels..	65	19	17	46	16	6	...	10	34
45	Natural gas.....million cu. ft..	81	17	...	64	31	7	...	24	26
46	Electric energy purchased.....million kwh..	118	18	16	100	22	1	2	21	64
47	Electric energy generated and used.....do....	2	...	...	2	1	...	...	1	1

NA Not available.

¹The total for all quarries represents the sum of the figures shown for the separate types of quarries and may include some duplication due to the same company operating in more than one industry. The figures for individual types of quarries may represent a slight understatement, however, since they represent the differences between totals for all kinds of quarries of each type and figures for "Quarries with dressing plants."

²represents net shipments (total shipments less rough dimension stone received for dressing) of rough and dressed dimension stone of the kind indicated by the type of quarry.

³For 1954, represents gross value of shipments and contains some duplication. The approximate magnitude of this duplication is indicated by the figures shown for cost of "Rough stone received for dressing." For 1939, represents value of products.

⁴For 1954, includes the cost of products purchased for resale without further processing, amounting to \$1,407 thousand for all dimension stone quarries. Data were not requested on such products for 1939.

size of establishments included for each year, see INTRODUCTION)

Dimension granite quarries--Continued			Dimension slate quarries (quarries with dressing plants) (1954)	Dimension marble quarries				Dimension sandstone quarries				Dimension trap rock and Dimension stone, n.e.c., quarries				
Quarries only		Quarries with dressing plants (1954)		Total (1954)	Quarries only		Quarries with dressing plants (1954)	Total (1954)	Quarries only		Quarries with dressing plants (1954)	Total (1954)	Quarries only		Quarries with dressing plants (1954)	
1954	1939				1954	1939			1954	1939			1954	1939		1954	1939
79	175	57	52	24	18	113	6	135	107	125	28	73	55	14	18	1
86	(NA)	57	52	36	30	(NA)	6	145	115	(NA)	30	73	55	(NA)	18	2
86	91	59	52	37	31	19	6	145	115	25	30	73	55	4	18	4
...	...	57	52	6	...	...	6	30	...	...	30	18	...	...	18	4
289	(NA)	380	162	128	65	(NA)	63	541	346	(NA)	195	126	114	19	12	5
5,738	3,268	22,760	6,904	10,632	3,491	879	7,141	11,080	5,292	641	5,788	1,296	670	27	626	6
5,649	(NA)	4,569	...	4,160	3,421	(NA)	739	6,100	5,036	(NA)	1,064	688	651	25	37	7
...	...	17,071	6,438	5,595	...	...	5,595	4,276	...	...	4,276	582	...	...	582	8
89	(NA)	1,120	466	877	70	(NA)	807	704	256	(NA)	448	26	19	2	7	9
4,590	2,674	16,386	5,697	8,241	2,893	721	5,348	9,050	4,178	501	4,872	1,124	552	19	572	10
1,022	1,297	3,090	1,397	1,905	645	674	1,260	2,084	1,070	309	1,014	346	214	28	132	11
917	1,163	2,745	1,259	1,721	612	652	1,109	1,807	925	269	882	247	142	24	105	12
50	75	297	90	175	25	17	150	152	48	18	104	15	5	...	10	13
55	59	48	48	9	8	5	1	125	97	22	28	84	67	4	17	14
25		29	36	3	3		...	61	43		18	37	21	3	16	15
1,769	(NA)	5,676	2,564	3,703	1,245	(NA)	2,458	3,557	1,752	(NA)	1,805	495	255	36	240	16
1,769	(NA)	2,251	1,126	1,987	1,245	(NA)	742	2,463	1,752		711	336	255	36	81	17
138		...	57	699	699		...	...	...	...	...	...	...	...	...	18
1,476		1,520	968	1,120	544		576	2,102	1,432	(NA)	670	336	255	32	81	19
155		731	101	168	2		166	361	320	(NA)	41	...	...	4	...	20
...	...	3,425	1,438	1,716	...	...	1,716	1,094	...	...	1,094	159	...	...	159	21
3,806	2,073	17,456	5,260	7,827	2,244	655	5,583	8,214	3,629	437	4,585	909	457	21	452	22
2,404	1,297	9,402	3,598	4,561	1,505	449	3,056	5,292	2,273	268	3,019	628	327	13	301	23
235	182	1,660	427	862	135	48	727	730	183	29	547	69	7	...	62	24
...	...	765	19	575	...	...	575	78	...	...	78	...	...	...	...	25
693	313	4,491	908	1,354	511	49	843	1,292	631	95	661	120	61	2	59	26
96	67	276	125	38	13	52	25	282	161	32	121	52	44	5	8	27
229	200	659	165	270	80	48	190	95	22	8	73	18	4	1	14	28
149	14	203	18	167	...	9	167	445	359	5	86	22	14	...	8	29
226		600	105	194	55		139	612	413		199	65	39		26	30
245	(NA)	620	133	207	61	(NA)	146	774	472	(NA)	302	105	44	(NA)	61	31
30		14	45	9	5		4	29	23		6	12	11		1	32
3		70	6	...	...	...	...	50	49	...	1	35	...	...	35	33
2	14	6	3	21	14	...	7	145	15	...	130	3	3	...	...	34
157	50	433	39	119	39	2	80	434	285	7	149	19	11	1	8	35
53	21	97	40	58	3	9	55	116	100	1	16	36	19	1	17	36
30	29	55	23	30	13	8	17	43	27	4	16	9	6	1	3	37
33	22	20	18	17	21	12	15	24	30	15	19	37	43	40	28	38
17	9	22	12	12	7	5	5	35	26	3	9	8	6	1	2	39
13	20	33	11	18	6	3	12	8	1	1	7	1	...	...	1	40
...	...	1	...	5	5	1	...	...	...	...	...	...	...	...	...	41
35	77	184	76	37	8	130	29	174	52	28	122	15	13	1	2	42
...	7	7	5	1	...	16	1	14	1	1	13	...	...	...	...	43
5	6	29	4	1	...	1	1	6	5	10	1	4	3	...	1	44
9	...	17	23	...	...	...	...	...	...	...	...	1	1	...	...	45
12	10	52	8	21	5	4	16	3	...	...	3	...	...	...	...	46
...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	47

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 1B.—VALUE OF SHIPMENTS, BY KIND, AND MAN-HOURS FOR QUARRYING AT DIMENSION STONE QUARRIES IN THE UNITED STATES: 1954 AND 1939
(For explanation of line captions, see INTRODUCTION)

Item	Dimension stone quarries, total			Dimension limestone quarries		
	Total	Quarries only	Quarries with dressing plants	Total	Quarries only	Quarries with dressing plants
1954						
Value of shipments, total ¹.....\$1,000..	78,903	18,945	59,958	20,493	3,754	16,739
Rough stone.....do....	27,685	17,927	9,758	6,519	3,170	3,349
Dressed stone.....do....	46,683	...	46,683	12,721	...	12,721
Other products and services.....do....	4,535	1,018	3,517	1,253	584	669
Man-hours worked by production and development workers at quarries ².....1,000..	12,877	5,893	6,984	2,945	872	2,073
1939						
Value of shipments, total ¹.....\$1,000..	23,357	6,356	17,001	5,064	1,541	3,523
Rough stone.....do....	8,888	(NA)	(NA)	2,588	(NA)	(NA)
Dressed stone.....do....	14,003	...	14,003	2,359	...	2,359
Other products and services.....do....	466	(NA)	(NA)	117	(NA)	(NA)
Man-hours worked by production and development workers at quarries ².....1,000..	12,081	(NA)	(NA)	2,157	(NA)	(NA)
1954						
Dimension granite quarries			Dimension slate quarries (quarries with dressing plants only)	Dimension marble quarries		
Total	Quarries only	Quarries with dressing plants		Total	Quarries only	Quarries with dressing plants
Value of shipments, total ¹.....\$1,000..	28,498	5,738	22,760	6,904	10,632	3,491
Rough stone.....do....	10,218	5,649	4,569	...	4,160	3,421
Dressed stone.....do....	17,071	...	17,071	6,438	5,595	...
Other products and services.....do....	1,209	89	1,120	466	877	70
Man-hours worked by production and development workers at quarries ².....1,000..	4,020	1,769	2,251	1,126	1,987	1,245
1939						
Value of shipments, total ¹.....\$1,000..	8,100	3,268	4,832	3,431	4,907	879
Rough stone.....do....	4,189	(NA)	(NA)	9	1,298	(NA)
Dressed stone.....do....	3,664	...	3,664	3,416	3,585	...
Other products and services.....do....	247	(NA)	(NA)	6	24	(NA)
Man-hours worked by production and development workers at quarries ².....1,000..	4,146	(NA)	(NA)	1,808	2,817	(NA)
1954						
Dimension sandstone quarries			Dimension trap rock and Dimension stone, n.e.c., quarries			
Total	Quarries only	Quarries with dressing plants	Total	Quarries only	Quarries with dressing plants	
Value of shipments, total ¹.....\$1,000..	11,080	5,292	5,788	1,296	670	626
Rough stone.....do....	6,100	5,036	1,064	688	651	37
Dressed stone.....do....	4,276	...	4,276	582	...	582
Other products and services.....do....	704	256	448	26	19	7
Man-hours worked by production and development workers at quarries ².....1,000..	2,463	1,752	711	336	255	81
1939						
Value of shipments, total ¹.....\$1,000..	1,828	641	1,187	27	27	...
Rough stone.....do....	779	(NA)	(NA)	25	25	...
Dressed stone.....do....	979	...	979	...	...	...
Other products and services.....do....	70	(NA)	(NA)	2	2	...
Man-hours worked by production and development workers at quarries ².....1,000..	1,121	(NA)	(NA)	32	32	...

NA Not available.

¹See table 1A, footnote 3.²Excludes man-hours at associated dressing plants.

DIMENSION STONE

14C-7

Table 2.—COMPARATIVE STATISTICS FOR DIMENSION Limestone, GRANITE, SLATE, MARBLE, AND SANDSTONE QUARRIES FOR SELECTED STATES: 1954 AND 1939

(For explanation of column captions, see INTRODUCTION)

State and year	Number of quarries	Quantity of dimension stone shipped ¹ (1,000 short tons)			Value of shipments ² (\$1,000)	Man-hours worked by production and development workers at quarries ³ (1,000)
		Total	Rough stone	Dressed stone		
DIMENSION LIMESTONE QUARRIES						
United States.....1954..	106	1,069	697	372	20,493	2,945
.....1939..	64	1,119	952	167	5,064	2,157
Pennsylvania.....1954..	6	97	97	...	383	11
.....1939..	4	10	10	...	15	13
Indiana.....1954..	18	600	317	283	13,606	1,856
.....1939..	16	702	572	130	3,443	1,124
Wisconsin.....1954..	24	81	63	18	2,462	453
.....1939..	14	70	48	22	495	383
Kansas.....1954..	8	37	28	9	455	33
.....1939..	7	47	47	...	78	105
Texas.....1954..	8	42	12	30	839	156
.....1939..	3	4	3	1	34	34
DIMENSION GRANITE QUARRIES						
United States.....1954..	145	669	441	228	28,498	4,020
.....1939..	163	663	487	176	8,100	4,146
Maine.....1954..	9	23	8	15	1,522	50
.....1939..	8	48	24	24	765	316
Vermont.....1954..	7	87	82	5	4,976	820
.....1939..	10	104	102	2	2,123	1,026
Massachusetts.....1954..	12	144	59	85	4,884	504
.....1939..	17	130	73	57	1,026	313
Connecticut.....1954..	9	15	11	4	201	40
.....1939..	4	17	5	12	157	122
Pennsylvania.....1954..	5	13	11	2	316	58
.....1939..	10	54	53	1	122	131
Minnesota.....1954..	14	39	17	22	5,507	221
.....1939..	30	37	35	2	488	318
South Dakota.....1954..	8	19	14	5	1,568	173
.....1939..	6	16	13	3	375	156
California.....1954..	7	3	2	1	304	53
.....1939..	7	6	5	1	115	28
DIMENSION SLATE QUARRIES						
United States.....1954..	52	162	...	162	6,904	1,126
.....1939..	68	176	3	173	3,431	1,808
New York.....1954..	14	50	...	50	1,052	205
.....1939..	4	4	...	4	32	23
Pennsylvania.....1954..	15	65	...	65	3,280	466
.....1939..	24	98	...	98	2,075	874
DIMENSION MARBLE QUARRIES						
United States.....1954..	37	128	90	38	10,632	1,987
.....1939..	38	176	124	52	4,907	2,817
Tennessee.....1954..	14	42	33	9	3,078	577
.....1939..	12	56	47	9	1,593	1,534
DIMENSION SANDSTONE QUARRIES						
United States.....1954..	145	541	396	145	11,080	2,463
.....1939..	59	722	608	114	1,828	1,121
Pennsylvania.....1954..	27	124	95	29	869	259
.....1939..	6	18	16	2	51	65
Ohio.....1954..	15	169	73	96	4,702	568
.....1939..	7	115	30	85	688	359
Tennessee.....1954..	26	95	88	7	1,984	795
.....1939..	4	9	4	5	79	61

¹Represents only stone of the kind specified by the name of the type of quarry. For 1939, represents production, but excludes rough stone produced and used at the same establishment in making dressed stone.

²See table 1A, footnote 3.

³See table 1B, footnote 2.

Table 3A.—DETAILED STATISTICS FOR ALL DIMENSION STONE

(For explanation of line

Item	United States, total			New England		
	Total	Quarries only	Quarries with dressing plants	Maine	Vermont	
					Quarries only	Quarries with dressing plants
1 Number of operating companies.....	523	322	201	10	5	13
2 Number of establishments.....	555	351	204	10	10	18
3 Number of quarries.....	553	352	206	10	11	20
4 Number of dressing plants.....	204	...	204	8	...	13
5 Value of shipments.....\$1,000..	78,903	18,945	59,958	1,904	2,243	5,988
6 Value added in quarrying and dressing.....do....	61,774	15,155	46,619	1,494	1,930	4,912
7 Number of employees, total.....	12,325	3,224	9,101	317	411	721
8 Production and development workers.....	11,389	3,063	8,321	293	387	694
9 All other employees.....	936	156	780	24	24	27
10 Man-hours worked by production and development workers.....1,000..	23,155	5,893	17,262	577	818	1,376
11 Principal expenses, total.....\$1,000..	57,548	12,471	45,077	1,509	1,513	3,589
12 Wages of production and development workers.....do....	35,364	7,938	27,426	960	1,038	2,371
13 Salaries of all other employees.....do....	4,363	687	4,176	139	120	131
14 Supplies and rough stone received for dressing.....do....	13,056	2,482	10,574	329	251	681
15 Fuel.....do....	1,204	401	303	39	8	87
16 Purchased electric energy.....do....	1,353	339	1,464	42	46	129
17 Contract work.....do....	1,208	574	634	...	...	190
18 Purchased machinery installed.....do....	2,664	891	1,773	90	27	144
19 Capital expenditures (development work, construction, machinery, and equipment).....do....	2,856	947	1,909	90	19	155
20 For machinery and equipment only.....do....	2,285	792	1,493	82	14	130
21 Horsepower rating of power equipment.....1,000..	263	94	169	5	9	12
22 Water intake.....million gallons..	3,129	133	2,996	40	7	14
West North Central						
Minnesota						
Quarries only Quarries with dressing plants Missouri South Dakota Iowa and Kansas South Atlantic (Virginia)						
1 Number of operating companies.....	11	6	18	8	13	10
2 Number of establishments.....	13	6	19	8	13	10
3 Number of quarries.....	13	6	19	8	13	10
4 Number of dressing plants.....	...	6	2	2	4	6
5 Value of shipments.....\$1,000..	264	6,560	2,805	1,568	528	1,093
6 Value added in quarrying and dressing.....do....	212	3,785	1,918	1,192	373	945
7 Number of employees, total.....	50	754	416	194	73	234
8 Production and development workers.....	50	754	374	167	67	255
9 All other employees.....	...	...	42	27	6	29
10 Man-hours worked by production and development workers.....1,000..	87	1,568	948	340	147	529
11 Principal expenses, total.....\$1,000..	176	5,720	2,376	1,094	401	873
12 Wages of production and development workers.....do....	126	2,946	1,286	573	205	560
13 Salaries of all other employees.....do....	31	12,436	196	139	16	143
14 Supplies and rough stone received for dressing.....do....	6	59	1827	220	99	125
15 Fuel.....do....	13	279	15	17	32	19
16 Purchased electric energy.....do....	...	(1)	52	58	3	26
17 Contract work.....do....	(D)	178	(1)	87	46	...
18 Purchased machinery installed.....do....	(D)	177	127	45	30	43
19 Capital expenditures (development work, construction, machinery, and equipment).....do....	(D)	171	134	51	55	65
20 For machinery and equipment only.....do....	(D)	...	127	46	33	33
21 Horsepower rating of power equipment.....1,000..	2	10	9	5	6	4
22 Water intake.....million gallons..	...	1,305	(D)	...	(D)	12

D Withheld to avoid approximately disclosing figures of individual companies.

¹The cost of contract work is included with the cost of supplies.

QUARRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954

captions, see INTRODUCTION)

New England			Middle Atlantic				East North Central								
Massachusetts		New Hampshire, Rhode Island, and Connecticut	New York		Pennsylvania		Ohio		Indiana		Illinois and Michigan	Wisconsin			
Quarries only	Quarries with dressing plants		Quarries only	Quarries with dressing plants	Quarries only	Quarries with dressing plants	Quarries only	Quarries with dressing plants	Quarries only	Quarries with dressing plants		Quarries only	Quarries with dressing plants		
5	8	18	9	19	41	31	4	5	12	7	11	18	22	1	
5	8	18	9	20	41	31	9	6	14	8	11	22	22	2	
5	8	18	9	20	41	31	9	6	14	8	11	22	22	3	
...	8	5	...	20	...	31	...	6	...	8	2	...	22		
542	4,465	834	428	1,675	1,148	3,919	328	4,374	2,137	11,846	273	1,514	1,791	5	
431	3,325	714	380	1,260	909	3,278	285	3,881	1,858	9,882	210	1,101	1,334	6	
82	602	135	55	235	203	755	29	773	272	1,640	33	199	262	7	
76	519	114	55	235	194	692	29	773	252	1,579	33	191	242	8	
6	83	21			9	63			20	61		8	20	9	
149	1,012	227	109	480	388	1,416	64	1,419	498	3,128	60	370	485	10	
397	3,803	600	233	1,253	769	3,111	143	3,400	1,174	8,129	161	1,119	1,405	11	
250	2,053	392	189	793	514	2,177	92	2,822	807	5,884	95	662	856	12	
35	610	88			30	274			87	382		44	98	13	
89	959	71	30	346	116	468	151	519	191	11,469	48	371	377	14	
5	88	22	12	24	62	78			24	126	15	18	54	15	15
18	88	27	2	23	10	102	...	59	34	268	...	21	14	16	
...	5	...	...	67	37	12	(1)	...	31	(1)	3	3	6	17
15	61	37	33	40	126	48	(D)	(D)	77	498	19	59	61	18	
16	61	37	29	85	112	67	(D)	(D)	78	397	22	59	55	19	
16	24	29	20	33	108	49	(D)	(D)	69	365	19	56	50	20	
3	11	5	4	6	9	15	2	9	7	28	3	5	11	21	
(D)	(D)	18	...	89	1	180	...	321	17	254	...	1	...	22	
South Atlantic--Continued				East South Central		West South Central				Mountain			Pacific		
North Carolina		Georgia		Maryland, West Virginia, South Carolina, and Florida	Tennessee	Kentucky and Alabama	Arkansas	Oklahoma	Texas		Colorado	Arizona	Idaho, New Mexico, Utah, and Nevada	California	Washington and Oregon
Quarries only	Quarries with dressing plants	Quarries only	Quarries with dressing plants						Quarries only	Quarries with dressing plants					
6	6	20	11	17	41	11	15	7	6	7	18	10	14	15	10
7	6	23	11	17	47	11	15	7	6	7	18	10	14	15	10
7	6	23	11	17	47	11	15	7	6	7	18	10	14	15	10
...	6	...	11	2	3	3	2	2	...	7	5	1	3	8	3
156	1,845	2,088	3,547	642	5,093	2,297	418	450	103	1,698	518	583	268	557	413
142	1,369	1,630	2,886	521	3,851	1,894	303	295	76	1,398	343	387	238	454	378
49	338	366	705	135	1,024	416	92	69	26	285	79	59	56	65	66
49	338	359	627	127	977	366	92	69	26	285	79	59	56	65	66
		7	78	8	47	50									
79	623	666	1,252	264	1,786	772	160	122	34	609	143	104	100	132	114
143	1,457	1,271	2,589	448	3,577	1,651	318	309	75	1,074	392	377	221	359	339
102	981	758	1,526	305	2,065	1,020	195	155	48	793	234	173	161	241	286
		31	386	33	289	212									
31	424	319	513	77	1,059	1,318	108	131	17	204	44	11	39	45	29
4	14	34	38	12	65	17	14	6	10	25	16	15	15	8	14
5	38	99	112	15	91	84	1	17	...	42	1	1	6	21	6
1	...	30	14	6	8	(1)	(1)	(1)	(1)	10	97	177	...	44	4
2	45	94	117	38	233	65	(D)	(D)	(D)	37	47	16	9	28	19
29	45	118	133	27	214	81	(D)	(D)	(D)	18	30	24	39	43	37
17	45	92	111	27	196	65	(D)	(D)	(D)	18	28	14	10	25	19
2	5	10	12	3	15	11	2	2	2	6	4	2	2	4	1
(D)	(D)	77	68	...	148	215	(D)	16	1	2

Table 3B.—DETAILED STATISTICS FOR DIMENSION STONE QUARRIES

(For explanation of column

Item	Dimension limestone quarries						
	United States			Middle Atlantic (Pennsylvania, quarries only)	North Central, total ²		
	Total	Quarries only	Quarries with dressing plants		Total	Quarries only	Quarries with dressing plants
1 Number of operating companies.....	103	63	40	6	68	37	31
2 Number of establishments.....	106	65	41	6	71	39	32
3 Number of quarries.....	106	65	41	6	71	39	32
4 Number of dressing plants.....	41	...	41	...	32	...	32
5 Shipments of dimension stone ²⁰.....1,000 short tons..	1,069	455	614	97	836	279	557
6 Value of shipments.....\$1,000..	20,493	3,754	16,739	383	18,170	3,160	15,010
7 Value added in quarrying and dressing.....do....	16,686	2,942	13,744	298	14,826	2,484	12,342
8 Number of persons engaged, total.....	2,948	572	2,376	62	2,482	437	2,045
9 Production and development workers.....	2,693	472	2,221	53	2,293	372	1,921
10 All other employees.....	157	28	129	2	126	24	102
11 Proprietors and firm members.....	98	72	26	7	63	41	22
12 Performing manual labor.....	62	41	21	1	40	23	17
13 Man-hours worked by production and development workers, total.....1,000..	5,391	872	4,519	110	4,590	688	3,902
14 At mines, total.....do....	2,945	872	2,073	110	2,551	688	1,863
15 Underground.....do....	26	11	15	2	24	9	15
16 Open quarry.....do....	2,604	786	1,818	93	2,241	633	1,608
17 Surface (including mine shops and yards).....do....	315	75	240	15	286	46	240
18 At dressing plants.....do....	2,446	...	2,446	...	2,039	...	2,039
19 Man-hours spent on development and exploration work (included above).....do....	25	...	25	...	20	...	20
20 Tons of dimension stone per man-hour ²¹	0.20	0.52	0.14	0.88	0.18	0.41	0.14
21 Principal expenses designated below, total.....\$1,000..	14,076	2,335	11,741	203	12,416	1,992	10,424
22 Wages of production and development workers.....do....	9,479	1,429	8,050	129	8,418	1,221	7,197
23 Salaries of all other employees.....do....	880	127	753	8	739	108	631
24 Rough stone received for dressing.....do....	75	...	75	...	75	...	75
25 Supplies ²³.....do....	2,686	586	2,100	34	2,378	525	1,853
26 Fuel.....do....	335	87	248	25	269	49	220
27 Purchased electric energy.....do....	417	54	363	6	357	44	313
28 Contract work.....do....	204	52	152	1	180	45	135
29 Purchased machinery installed.....do....	862	158	704	24	754	124	630
30 Capital expenditures, total.....do....	772	125	647	5	669	111	558
31 Development and exploration of mineral property.....do....	39	...	39	...	18	...	18
32 Plant construction.....do....	15	...	15	...	10	...	10
33 Other construction.....do....	34	...	34	...	34	...	34
34 New machinery and equipment.....do....	593	89	504	...	526	80	446
35 Used plant and equipment.....do....	91	36	55	5	81	31	50
36 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	72,180	17,428	54,752	1,594	55,695	12,742	42,953
37 Per production worker.....	27	37	25	30	24	34	22
38 Prime movers.....	36,170	12,812	23,358	1,394	28,566	8,978	19,588
39 Electric motors driven by purchased energy.....	36,010	4,616	31,394	200	27,129	3,764	23,365
40 Horsepower rating of electric motors driven by energy generated at the establishment.....	40	...	40	...	40	...	40
41 Energy used.....million kwh equivalent..	223	34	189	7	202	23	179
42 Coal.....1,000 short tons..	16	1	15	...	16	1	15
43 Fuel oils.....1,000 barrels..	16	6	10	3	13	3	10
44 Natural gas.....million cu. ft..	31	7	24	...	31	7	24
45 Electric energy purchased.....million kwh..	22	1	21	...	18	1	17
46 Electric energy generated and used.....do....	1	...	1	...	1	...	1
47 Water intake, including mine water used.....million gallons..	289	16	273	...	284	15	269
48 Per production worker.....do....	0.11	0.03	0.12	...	0.12	0.04	0.14

See footnotes at end of table.

BY KIND OF STONE, BY GEOGRAPHIC DIVISIONS AND STATES: 1954

captions, see INTRODUCTION)

Dimension limestone quarries—Continued												
North Central—Continued									South		West ⁴	
Indiana			Wisconsin			Minnesota	Kansas	Missouri	Total ³	Texas		
Total	Quarries only	Quarries with dressing plants	Total	Quarries only	Quarries with dressing plants							
15	8	7	24	10	14	5	8	10	27	8	3	1
18	10	8	24	10	14	5	8	10	26	8	3	2
18	10	8	24	10	14	5	8	10	26	8	3	3
8	...	8	14	...	14	4	4	1	8	5	1	4
600	116	484	81	52	29	28	37	42	133	42	3	5
13,606	1,760	11,846	2,462	1,046	1,416	1,317	455	159	1,834	839	106	6
11,399	1,517	9,882	1,726	690	1,036	1,100	329	136	1,456	676	106	7
1,864	224	1,640	323	128	195	144	69	49	389	178	15	8
1,783	204	1,579	276	110	166	122	54	38	338	171	9	9
79	18	61	18	6	12	21	6	2	29	5	...	10
2	2	...	29	12	17	1	9	9	22	2	6	11
2	2	...	21	8	13	...	7	3	15	...	6	12
3,509	381	3,128	559	216	343	309	122	53	673	337	18	13
1,856	381	1,475	453	216	237	110	33	50	267	157	17	14
...	...	...	4	...	4	...	5	4	...	...	...	15
1,606	361	1,245	434	205	229	110	26	46	253	156	17	16
250	20	230	15	11	4	...	2	...	14	1	...	17
1,653	...	1,653	106	...	106	199	89	3	406	180	1	18
19	...	19	...	...	...	1	...	...	4	...	1	19
0.17	0.30	0.15	0.14	0.24	0.08	0.09	0.30	0.79	0.20	0.12	(²²)	20
9,090	961	8,129	1,913	810	1,103	864	339	120	1,418	569	39	21
6,530	646	5,884	1,083	431	652	488	173	90	908	394	24	22
464	82	382	99	26	73	153	16	7	133	21	...	23
} 1,534 {	...	...	...	...	...	...	...	...	...	...	...	24
	156	1,378	654	333	321	150	87	10	268	93	6	25
	17	126	54	8	46	30	18	10	38	23	3	26
	31	268	18	11	7	35	3	2	54	22	...	27
	29	91	5	1	4	8	42	1	17	16	6	28
547	49	498	97	52	45	48	30	28	84	23	...	29
436	39	397	92	49	43	54	54	28	83	14	15	30
...	...	...	1	...	1	3	14	...	6	...	15	31
5	...	5	...	...	...	3	2	...	5	...	...	32
27	...	27	...	...	...	...	6	...	...	...	...	33
356	22	334	89	49	40	48	15	18	67	11	...	34
48	17	31	2	...	2	...	17	10	5	3	...	35
33,610	5,807	27,803	11,262	2,236	9,026	2,990	4,786	1,491	14,436	5,010	455	36
19	28	18	41	20	54	25	89	39	43	29	(²²)	37
9,904	2,450	7,454	10,518	2,025	8,493	1,340	3,973	1,336	5,755	2,800	455	38
23,706	3,357	20,349	744	211	533	1,650	813	155	8,681	2,210	...	39
...	...	...	...	...	...	...	...	...	...	...	...	40
150	13	137	15	2	13	23	7	3	13	7	1	41
15	1	14	...	...	...	1	...	...	...	...	...	42
2	...	2	5	...	5	...	3	1	...	...	...	43
7	7	...	...	...	...	24	...	...	...	...	...	44
17	1	16	...	...	...	1	...	...	4	1	...	45
...	...	...	...	...	...	...	...	...	...	...	...	46
268	14	254	...	...	...	(D)	(D)	(D)	(D)	(D)	(D)	47
0.15	0.07	0.16	...	...	...	(D)	(D)	(D)	(D)	(D)	(D)	48

Table 3B.—DETAILED STATISTICS FOR DIMENSION STONE QUARRIES

Item	Dimension granite quarries					
	United States			New England		
	Total	Quarries only	Quarries with dressing plants	Total ⁵		
				Total	Quarries only	Quarries with dressing plants
1 Number of operating companies.....	136	79	57	42	21	21
2 Number of establishments.....	143	86	57	42	21	21
3 Number of quarries.....	145	86	59	44	21	23
4 Number of dressing plants.....	57	...	57	21	...	21
5 Shipments of dimension stone ²⁰ .....1,000 short tons..	669	289	380	282	85	197
6 Value of shipments.....\$1,000..	28,498	5,738	22,760	12,178	1,305	10,873
7 Value added in quarrying and dressing.....do....	20,976	4,590	16,386	9,624	1,094	8,530
8 Number of persons engaged, total.....	4,112	1,022	3,090	1,564	213	1,351
9 Production and development workers.....	3,662	917	2,745	1,375	174	1,201
10 All other employees.....	347	50	297	160	25	135
11 Proprietors and firm members.....	103	55	48	29	14	15
12 Performing manual labor.....	54	25	29	19	7	12
13 Man-hours worked by production and development workers, total.....1,000..	7,445	1,769	5,676	2,705	332	2,373
14 At mines, total.....do....	4,020	1,769	2,251	1,490	332	1,158
15 Underground.....do....	138	138	...	3	3	...
16 Open quarry.....do....	2,996	1,476	1,520	1,099	261	838
17 Surface (including mine shops and yards).....do....	886	155	731	388	68	320
18 At dressing plants.....do....	3,425	...	3,425	1,215	...	1,215
19 Man-hours spent on development and exploration work (included above).....do....	16	10	6	...	...	...
20 Tons of dimension stone per man-hour ²¹	0.09	0.16	0.07	0.10	0.25	0.03
21 Principal expenses designated below, total.....\$1,000..	21,262	3,806	17,456	8,664	875	7,789
22 Wages of production and development workers.....do....	11,806	2,404	9,402	5,118	559	4,559
23 Salaries of all other employees.....do....	1,895	235	1,660	1,005	121	884
24 Rough stone received for dressing.....do....	765	...	765	1,877	...	1,756
25 Supplies ²³.....do....	5,184	693	4,491	1,211	...	...
26 Fuel.....do....	372	96	276	200	24	176
27 Purchased electric energy.....do....	888	229	659	283	50	233
28 Contract work.....do....	352	149	203	181	...	181
29 Purchased machinery installed.....do....	826	226	600	329	51	273
30 Capital expenditures, total.....do....	865	245	620	316	35	281
31 Development and exploration of mineral property.....do....	44	30	14	...	...	...
32 Plant construction.....do....	73	3	70	49	...	49
33 Other construction.....do....	8	2	6	4	1	3
34 New machinery and equipment.....do....	590	157	433	178	21	157
35 Used plant and equipment.....do....	150	53	97	85	13	72
36 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	85,481	30,129	55,352	32,038	8,137	23,901
37 Per production worker.....	23	33	20	23	47	20
38 Prime movers.....	39,592	17,217	22,375	16,466	5,190	11,276
39 Electric motors driven by purchased energy.....	45,889	12,912	32,977	15,572	2,947	12,625
40 Horsepower rating of electric motors driven by energy generated at the establishment.....	472	...	472	350	...	350
41 Energy used.....million kwh equivalent..	219	35	184	96	7	89
42 Coal.....1,000 short tons..	7	...	7	4	...	4
43 Fuel oils.....1,000 barrels..	34	5	29	20	...	20
44 Natural gas.....million cu. ft..	26	9	17	...	...	...
45 Electric energy purchased.....million kwh..	64	12	52	16	3	13
46 Electric energy generated and used.....do....	1	...	1	1	...	1
47 Water intake, including mine water used.....million gallons..	1,764	95	1,669	199	11	188
48 Per production worker.....do....	0.48	0.10	0.61	0.14	0.06	0.16

See footnotes at end of table.

BY KIND OF STONE, BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

Dimension granite quarries—Continued												
New England—Continued		Middle Atlantic					North Central					
Vermont	Connecticut	Total			New York	Pennsyl- vania	Total ⁶			Minnesota	South Dakota	
		Total	Quarries only	Quarries with dressing plants			Total	Quarries only	Quarries with dressing plants			
5	9	10	6	4	5	5	30	22	8	12	8	1
5	9	10	6	4	5	5	33	25	8	14	8	2
7	9	10	6	4	5	5	33	25	8	14	8	3
2	2	4	...	4	1	3	8	...	8	2	2	4
87	15	34	24	10	21	13	77	43	34	39	19	5
4,976	201	597	298	299	281	316	8,031	1,329	6,702	5,507	1,568	6
4,094	177	535	266	269	253	282	4,875	1,023	3,852	2,897	1,192	7
526	42	105	44	61	38	67	1,058	234	824	669	195	8
492	32	89	36	53	28	61	917	209	708	577	167	9
31	1	5	...	5	...	5	122	11	111	84	27	10
3	9	11	8	3	10	1	19	14	5	8	1	11
1	4	8	5	3	7	1	11	9	2	4	1	12
970	69	178	69	109	55	123	2,012	402	1,610	1,346	340	13
820	40	113	69	44	55	58	650	402	248	221	173	14
...	...	...	...	...	...	...	...	...	...	...	...	15
600	40	107	69	38	55	52	602	374	228	221	169	16
220	...	6	...	6	...	6	48	28	20	...	4	17
150	29	65	...	65	...	65	1,362	...	1,362	1,125	167	18
...	...	...	...	...	...	...	2	...	2	...	...	19
0.08	0.22	0.19	0.35	0.09	0.38	0.11	0.04	0.11	0.02	0.03	0.05	20
2,808	134	385	158	227	133	252	6,821	946	5,875	5,032	1,094	21
1,779	106	306	126	180	105	201	3,128	595	2,533	2,084	573	22
161	5	17	...	17	...	17	542	51	491	347	139	23
...	...	...	...	...	...	...	2,654	...	2,516	2,309	...	24
504	11	43	22	21	19	24	138	...	...	...	220	25
55	10	10	9	1	8	2	69	24	45	35	17	26
129	2	9	1	8	1	8	340	54	286	257	58	27
180	...	...	...	...	...	...	88	84	4	...	87	28
128	26	21	19	2	19	2	218	59	159	135	45	29
114	25	21	19	2	19	2	213	53	160	126	51	30
...	...	...	...	...	...	...	7	1	6	...	3	31
...	...	...	...	...	...	...	3	3	...	...	...	32
...	...	...	...	...	...	...	...	...	...	...	...	33
114	17	21	19	2	19	2	190	42	148	124	37	34
...	8	...	...	...	...	...	13	7	6	2	11	35
11,102	2,530	2,534	1,744	790	1,494	1,040	19,647	6,857	12,790	9,108	5,135	36
23	79	28	48	15	53	17	21	33	18	16	31	37
2,570	2,279	2,214	1,744	470	1,494	720	5,105	2,411	2,694	1,330	1,826	38
8,532	251	320	...	320	...	320	14,542	4,446	10,096	7,778	3,309	39
...	...	...	...	...	...	...	122	...	122	...	122	40
30	2	3	3	...	2	1	72	7	65	47	7	41
2	...	...	...	...	...	...	3	...	3	1	...	42
2	...	1	1	...	1	...	8	2	6	6	2	43
...	...	...	...	...	...	...	...	...	...	...	...	44
7	...	...	...	...	...	...	31	2	29	28	3	45
...	...	...	...	...	...	...	...	...	...	...	...	46
(D)	(D)	(D)	...	(D)	...	(D)	(D)	(D)	(D)	(D)	...	47
(D)	(D)	(D)	...	(D)	...	(D)	(D)	(D)	(D)	(D)	...	48

Table 3B.—DETAILED STATISTICS FOR DIMENSION STONE QUARRIES

Item		Dimension granite quarries—Continued			
		South			
		Total ⁷			Georgia
		Total	Quarries only	Quarries with dressing plants	
1	Number of operating companies.....	40	24	16	25
2	Number of establishments.....	44	28	16	28
3	Number of quarries.....	44	28	16	28
4	Number of dressing plants.....	16	...	16	9
5	Shipments of dimension stone ²⁰.....1,000 short tons..	270	135	135	192
6	Value of shipments.....\$1,000..	7,249	2,628	4,621	3,828
7	Value added in quarrying and dressing.....do....	5,608	2,093	3,515	2,940
8	Number of persons engaged, total.....	1,304	504	800	707
9	Production and development workers.....	1,216	474	742	658
10	All other employees.....	54	12	42	29
11	Proprietors and firm members.....	34	18	16	20
12	Performing manual labor.....	10	4	6	6
13	Man-hours worked by production and development workers, total.....1,000..	2,420	910	1,510	1,249
14	At mines, total.....do....	1,687	910	777	914
15	Underground.....do....	135	135	...	...
16	Open quarry.....do....	1,119	727	392	837
17	Surface (including mine shops and yards).....do....	433	48	385	77
18	At dressing plants.....do....	733	...	733	335
19	Man-hours spent on development and exploration work (included above).....	9	9	...	...
20	Tons of dimension stone per man-hour ²¹	0.11	0.15	0.09	0.15
21	Principal expenses designated below, total.....\$1,000..	5,032	1,661	3,371	2,562
22	Wages of production and development workers.....do....	3,029	1,027	2,002	1,502
23	Salaries of all other employees.....do....	317	60	257	141
24	Rough stone received for dressing.....do....	1,315	...	927	659
25	Supplies ²³.....do....	85	388	47	59
26	Fuel.....do....	242	117	125	158
27	Purchased electric energy.....do....	44	31	13	43
28	Contract work.....do....	249	91	158	171
29	Purchased machinery installed.....do....	294	130	164	202
30	Capital expenditures, total.....do....	28	28	...	16
31	Development and exploration of mineral property.....do....	21	...	21	21
32	Plant construction.....do....	2	1	1	2
33	Other construction.....do....	192	68	124	126
34	New machinery and equipment.....do....	51	33	18	37
35	Used plant and equipment.....do....	27,405	11,641	15,764	18,864
36	Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	23	25	21	29
37	Per production worker.....	13,918	7,142	6,776	10,486
38	Prime movers.....	13,487	4,499	8,988	8,378
39	Electric motors driven by purchased energy.....	...	...	...	...
40	Horsepower rating of electric motors driven by energy generated at the establishment.....	...	...	...	...
41	Energy used.....million kwh equivalent..	46	18	28	31
42	Coal.....1,000 short tons..	...	...	...	...
43	Fuel oils.....1,000 barrels..	5	2	3	3
44	Natural gas.....million cu. ft..	26	9	17	22
45	Electric energy purchased.....million kwh..	17	7	10	9
46	Electric energy generated and used.....do....	...	...	...	...
47	Water intake, including mine water used.....million gallons..	(D)	(D)	(D)	(D)
48	Per production worker.....do....	(D)	(D)	(D)	(D)

See footnotes at end of table.

BY KIND OF STONE, BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

Dimension granite quarries—Continued				Dimension slate quarries ¹						Dimension marble quarries			
West				United States, total	New England ⁹	Middle Atlantic			South and West ¹⁰	United States			
Total ⁸			California			Total	New York	Pennsylvania		Total	Quarries only	Quarries with dressing plants	
Total	Quarries only	Quarries with dressing plants											
14	6	8	7	52	17	29	14	15	6	24	18	6	1
14	6	8	7	52	17	29	14	15	6	36	30	6	2
14	6	8	7	52	17	29	14	15	6	37	31	6	3
8	...	8	4	52	17	29	14	15	6	6	...	6	4
6	2	4	3	162	37	115	50	65	10	128	65	63	5
443	178	265	304	6,904	1,911	4,332	1,052	3,280	661	10,632	3,491	7,141	6
334	114	220	227	5,697	1,589	3,533	796	2,737	575	8,241	2,893	5,348	7
21	27	54	44	1,397	391	809	168	641	197	1,905	645	1,260	8
65	24	41	33	1,252	361	718	136	582	180	1,721	612	1,109	9
6	2	4	3	90	10	66	12	54	14	175	25	150	10
10	1	9	8	48	20	25	20	5	3	9	8	1	11
6	...	6	5	36	14	19	16	3	3	3	3	...	12
130	56	74	74	2,564	708	1,523	315	1,208	333	3,703	1,245	2,458	13
80	56	24	53	1,126	325	671	205	466	130	1,987	1,245	742	14
...	...	...	...	57	42	4	4	...	11	699	699	...	15
69	45	24	44	968	231	663	197	466	74	1,120	544	576	16
11	11	...	9	101	52	4	4	...	45	168	2	166	17
50	...	50	21	1,438	383	852	110	742	203	1,716	...	1,716	18
5	1	4	...	42	29	13	5	8	...	4	4	...	19
0.05	0.04	0.05	0.04	0.06	0.05	0.08	0.16	0.05	0.03	0.03	0.05	0.03	20
360	166	194	221	5,260	1,425	3,349	719	2,630	486	7,827	2,244	5,583	21
225	97	128	134	3,598	1,047	2,199	371	1,828	352	4,561	1,505	3,056	22
14	3	11	9	427	45	325	83	242	57	862	135	727	23
60	...	36	28	19	239	645	...	403	...	575	...	575	24
8	24	7	3	908	45	65	242	...	43	1,354	511	843	25
14	1	7	3	125	45	65	6	59	15	38	13	25	26
39	7	7	12	165	39	107	14	93	19	270	80	190	27
39	34	5	35	18	10	8	3	5	...	167	...	167	28
9	6	3	1	105	33	53	20	33	19	194	55	139	29
21	8	13	2	133	44	79	29	50	10	207	61	146	30
9	1	8	...	45	18	27	10	17	...	9	5	4	31
...	...	...	...	6	5	1	1	...	...	...	...	...	32
2	...	2	...	3	2	1	1	...	...	21	14	7	33
9	7	2	1	39	11	19	4	15	9	119	39	80	34
1	...	1	1	40	8	31	13	18	1	58	3	55	35
3,857	1,750	2,107	2,862	22,603	5,334	14,672	3,745	10,927	2,597	29,684	12,714	16,970	36
59	73	51	87	18	15	20	28	19	14	17	21	15	37
1,889	730	1,159	1,214	11,735	2,607	7,378	2,702	4,676	1,750	12,101	6,851	5,250	38
1,962	1,020	948	1,648	10,868	2,727	7,294	1,043	6,251	847	17,583	5,863	11,720	39
...	...	...	...	...	...	...	...	...	...	4,850	4,850	...	40
2	...	2	1	76	14	51	6	45	11	37	8	29	41
...	...	...	...	5	...	4	...	4	1	1	...	1	42
...	...	...	...	4	2	2	2	...	...	2	...	2	43
...	...	...	...	23	...	23	...	23	...	...	...	...	44
...	...	...	...	8	2	5	1	4	1	21	5	16	45
...	...	...	...	...	...	...	...	...	...	2	2	...	46
(D)	...	(D)	(D)	43	17	20	...	20	6	601	16	585	47
(D)	...	(D)	(D)	0.03	0.05	0.03	...	0.03	0.03	0.35	0.03	0.53	48

Table 3B.—DETAILED STATISTICS FOR DIMENSION STONE QUARRIES

	Item	Dimension marble quarries—Continued			Dimension sandstone quarries		
		East ¹¹	South and West ¹²		United States		
			Total	Tennessee	Total	Quarries only	Quarries with dressing plants
1	Number of operating companies.....	6	18	8	135	107	28
2	Number of establishments.....	12	24	14	145	115	30
3	Number of quarries.....	13	24	14	145	115	30
4	Number of dressing plants.....	1	5	1	30	...	30
5	Shipments of dimension stone ²⁰.....1,000 short tons..	42	86	42	541	346	195
6	Value of shipments.....\$1,000..	4,148	6,484	3,078	11,080	5,292	5,788
7	Value added in quarrying and dressing.....do....	3,089	5,152	2,238	9,050	4,178	4,872
8	Number of persons engaged, total.....	679	1,226	547	2,084	1,070	1,014
9	Production and development workers.....	628	1,093	510	1,807	925	882
10	All other employees.....	50	125	36	152	48	104
11	Proprietors and firm members.....	1	8	1	125	97	28
12	Performing manual labor.....	...	3	...	61	43	18
13	Man-hours worked by production and development workers, total.....1,000..	1,535	2,168	964	3,557	1,752	1,805
14	At mines, total.....do....	893	1,094	577	2,463	1,752	711
15	Underground.....do....	699	...	...	...	...	...
16	Open quarry.....do....	194	926	577	2,102	1,432	670
17	Surface (including mine shops and yards).....do....	...	168	...	361	320	41
18	At dressing plants.....do....	642	1,074	...	1,094	...	1,094
19	Man-hours spent on development and exploration work (included above).....do....	4	...	...	784	...	784
20	Tons of dimension stone per man-hour ²¹	0.03	0.04	0.04	0.15	0.20	0.11
21	Principal expenses designated below, total.....\$1,000..	3,302	4,525	2,225	8,214	3,629	4,585
22	Wages of production and development workers.....do....	1,995	2,566	1,170	5,292	2,273	3,019
23	Salaries of all other employees.....do....	235	627	228	730	183	547
24	Rough stone received for dressing.....do....	837	1,092	723	78	...	78
25	Supplies ²³.....do....				1,292	631	661
26	Fuel.....do....				282	161	121
27	Purchased electric energy.....do....	66	204	87	95	22	73
28	Contract work.....do....	167	...	...	445	359	86
29	Purchased machinery installed.....do....	94	100	44	612	413	199
30	Capital expenditures, total.....do....	107	100	31	774	472	302
31	Development and exploration of mineral property.....do....	5	4	...	29	23	6
32	Plant construction.....do....	...	...	...	50	49	1
33	Other construction.....do....	8	13	4	145	15	130
34	New machinery and equipment.....do....	51	68	12	434	285	149
35	Used plant and equipment.....do....	43	15	15	116	100	16
36	Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	12,613	17,071	8,419	43,997	27,374	16,623
37	Per production worker.....	20	16	17	24	30	19
38	Prime movers.....	8,300	3,801	2,361	35,319	26,007	9,312
39	Electric motors driven by purchased energy.....	4,313	13,270	6,058	8,678	1,367	7,311
40	Horsepower rating of electric motors driven by energy generated at the establishment.....	4,850	...	...	...	...	...
41	Energy used.....million kwh equivalent..	6	31	9	174	52	122
42	Coal.....1,000 short tons..	...	1	...	14	1	13
43	Fuel oils.....1,000 barrels..	...	2	...	6	5	1
44	Natural gas.....million cu. ft..	...	...	...	...	...	...
45	Electric energy purchased.....million kwh..	5	16	6	3	...	3
46	Electric energy generated and used.....do....	2	...	...	...	...	...
47	Water intake, including mine water used.....million gallons..	(D)	(D)	(D)	416	6	410
48	Per production worker.....do....	(D)	(D)	(D)	0.23	0.01	0.46

See footnotes at end of table.

BY KIND OF STONE, BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

Dimension sandstone quarries—Continued																	-
East										South			West				
Total ¹³			Pennsylvania			Ohio			Indiana	Total ¹⁴	Tennessee	Arkansas	Total ¹⁵	Colorado	Arizona		
Total	Quarries only	Quarries with dressing plants	Total	Quarries only	Quarries with dressing plants	Total	Quarries only	Quarries with dressing plants									
57	38	19	27	20	7	9	4	5	4	47	26	7	31	12	4	1	
67	46	21	27	20	7	15	9	6	4	47	26	7	31	12	4	2	
67	46	21	27	20	7	15	9	6	4	47	26	7	31	12	4	3	
21	...	21	7	...	7	6	...	6	...	2	2	...	7	3	1	4	
332	153	179	124	87	37	169	49	120	7	142	95	15	67	28	21	5	
6,998	1,508	5,490	869	585	284	4,702	328	4,374	377	2,619	1,984	226	1,463	405	477	6	
5,975	1,269	4,706	678	453	225	4,166	285	3,881	349	2,001	1,586	147	1,074	262	285	7	
1,212	260	952	186	129	57	808	29	779	51	659	501	66	213	67	41	8	
1,055	220	835	148	102	46	715	28	687	42	583	459	57	169	51	31	9	
111	11	100	10	6	4	87	1	86	2	26	11	5	15	2	6	10	
46	29	17	28	21	7	6	...	6	1	50	31	4	29	14	4	11	
21	11	10	13	7	6	3	...	3	1	20	12	3	20	7	4	12	
2,185	468	1,717	289	204	85	1,483	64	1,419	117	1,038	809	103	334	96	65	13	
1,108	468	640	259	204	55	568	64	504	117	1,024	795	103	331	96	65	14	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	15
953	352	601	218	163	55	543	64	479	60	898	699	75	251	83	16	16	
155	116	39	41	41	...	25	...	25	57	126	96	28	80	13	49	17	
1,077	...	1,077	30	...	30	915	...	915	...	14	14	...	3	...	...	18
2	...	2	...	...	...	2	...	2	...	779	779	...	3	...	...	19
0.15	0.33	0.10	0.43	0.43	0.44	0.11	0.77	0.08	0.06	0.14	0.12	0.15	0.20	0.29	0.32	20	
5,279	947	4,332	671	446	225	3,543	143	3,400	213	1,862	1,336	207	1,073	289	298	21	
3,553	660	2,893	441	290	151	2,458	91	2,367	161	1,131	884	101	608	159	90	22	
561	28	533	35	20	15	456	1	455	5	111	61	19	58	5	17	23	
803	156	647	111	69	42	475	36	439	35	486	333	72	81	17	5	24	
165	49	116	43	28	15	87	7	80	7	72	46	3	45	11	10	25	
81	8	73	5	4	1	59	...	59	3	6	4	...	8	...	1	26	
116	46	70	36	35	1	8	8	...	2	56	8	12	273	97	175	27	
300	140	160	98	87	11	127	5	122	28	236	189	6	76	40	9	28	
442	160	282	102	91	11	220	13	207	47	238	182	14	94	22	8	29	
6	1	5	1	1	...	4	...	4	1	11	9	2	12	...	1	30	
25	24	1	...	...	...	9	8	1	7	4	4	...	21	...	...	31
132	2	130	...	...	...	90	...	90	2	7	...	6	6	...	...	32
218	88	130	79	68	11	105	5	100	17	171	151	3	45	16	7	33	
61	45	16	22	22	...	12	...	12	20	45	18	3	10	5	...	34	
26,965	12,084	14,881	7,589	5,697	1,892	10,650	1,637	9,013	1,778	10,193	6,084	912	6,839	2,969	1,066	35	
26	55	18	51	56	41	15	58	13	35	15	13	16	40	58	34	36	
18,853	11,277	7,576	7,314	5,507	1,807	4,086	1,365	2,721	1,503	9,842	5,893	890	6,624	2,950	1,016	37	
8,112	807	7,305	275	190	85	6,564	272	6,292	275	351	191	22	215	19	50	38	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	39
137	17	120	11	8	3	114	2	112	3	19	12	1	18	3	3	40	
13	...	13	...	...	...	13	...	13	...	...	...	...	1	...	...	41
3	2	1	1	1	...	1	...	1	1	3	2	...	...	...	...	42
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	43
3	...	3	...	...	...	3	...	3	...	...	...	...	...	...	...	44
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	45
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	46
415	5	410	(D)	(D)	...	322	(D)	(D)	(D)	...	...	...	1	1	...	47
0.39	0.02	0.49	(D)	(D)	...	0.45	(D)	(D)	(D)	...	...	...	0.01	0.02	...	48

Table 3B.—DETAILED STATISTICS FOR DIMENSION STONE QUARRIES

Item	Dimension trap rock and Dimension stone, n.e.c., quarries		
	United States		
	Total	Quarries only	Quarries with dressing plants
1 Number of operating companies.....	73	55	18
2 Number of establishments.....	73	55	18
3 Number of quarries.....	73	55	18
4 Number of dressing plants.....	18	...	18
5 Shipments of dimension stone ²⁰.....1,000 short tons..	126	114	12
6 Value of shipments.....\$1,000..	1,296	670	626
7 Value added in quarrying and dressing.....do...	1,124	552	572
8 Number of persons engaged, total.....	346	214	132
9 Production and development workers.....	247	142	105
10 All other employees.....	15	5	10
11 Proprietors and firm members.....	84	67	17
12 Performing manual labor.....	37	21	16
13 Man-hours worked by production and development workers, total.....1,000..	495	255	240
14 At mines, total.....do...	336	255	81
15 Underground.....do...	...	...	...
16 Open quarry.....do...	336	255	81
17 Surface (including mine shops and yards).....do...	...	...	...
18 At dressing plants.....do...	159	...	159
19 Man-hours spent on development and exploration work (included above).....do...	7	7	...
20 Tons of dimension stone per man-hour ²¹	0.25	0.45	0.05
21 Principal expenses designated below, total.....\$1,000..	909	457	452
22 Wages of production and development workers.....do...	628	327	301
23 Salaries of all other employees.....do...	69	7	62
24 Rough stone received for dressing.....do...	...	...	...
25 Supplies ²³.....do...	120	61	59
26 Fuel.....do...	52	44	8
27 Purchased electric energy.....do...	18	4	14
28 Contract work.....do...	22	14	8
29 Purchased machinery installed.....do...	65	39	26
30 Capital expenditures, total.....do...	105	44	61
31 Development and exploration of mineral property.....do...	12	11	1
32 Plant construction.....do...	35	...	35
33 Other construction.....do...	3	3	...
34 New machinery and equipment.....do...	19	11	8
35 Used plant and equipment.....do...	36	19	17
36 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	9,065	6,105	2,960
37 Per production worker.....	37	43	28
38 Prime movers.....	7,824	5,834	1,990
39 Electric motors driven by purchased energy.....	1,241	271	970
40 Horsepower rating of electric motors driven by energy generated at the establishment.....	...	...	...
41 Energy used.....million kwh equivalent..	15	13	2
42 Coal.....1,000 short tons..	...	...	...
43 Fuel oils.....1,000 barrels..	4	3	1
44 Natural gas.....million cu. ft..	1	1	...
45 Electric energy purchased.....million kwh..	...	...	...
46 Electric energy generated and used.....do...	...	...	...
47 Water intake, including mine water used.....million gallons..	16	...	16
48 Per production worker.....do...	0.06	...	0.15

(D) Withheld to avoid approximately disclosing figures for individual companies.

¹Represents quarries with dressing plants only.

²In ad-

dication to the States shown, Illinois, 4 establishments; Michigan, 1; and Iowa, 1.

³In addition to Texas, Maryland, 2 establishments; Virginia, 2;

Georgia, 1; Florida, 3; Kentucky, 1; Tennessee, 4; Alabama, 1; Arkansas, 3; and Oklahoma, 1.

⁴Colorado, 2 establishments; California, 1.

⁵In

addition to the States shown, Maine, 9 establishments; New Hampshire, 4; Massachusetts, 12; and Rhode Island, 3.

⁶In addition to the States shown,

Wisconsin, 10 establishments; and Missouri, 1.

⁷In addition to Georgia, Maryland, 2 establishments; North Carolina, 7; South Carolina, 1; Oklahoma, 3; and Texas, 3.

⁸In addition to California, Colorado, 3 establishments; Washington, 2; and Oregon, 2.

⁹Maine, 1 establishment; and Vermont, 16.

¹⁰Vermont, 4 establishments; and California, 2.

¹¹Vermont, 7 establishments; Illinois, 1; and Missouri, 4.

¹²In addition to Tennessee, North

Carolina, 1 establishment; Georgia, 2; Kentucky, 1; Alabama, 2; Arkansas, 2; and Nevada, 2.

¹³In addition to the States shown, Massachusetts, 1

establishment; New York, 9; Michigan, 2; Wisconsin, 7; Missouri, 1; and Kansas, 1.

¹⁴In addition to the States shown, Maryland, 2 establishments;

Virginia, 1; West Virginia, 1; Georgia, 1; Kentucky, 2; Alabama, 3; Oklahoma, 2; and Texas, 2.

BY KIND OF STONE, BY GEOGRAPHIC DIVISIONS AND STATES: 1954--Continued

Dimension trap rock and Dimension stone, n.e.c., quarries—Continued											
Northeast				North Central ¹⁷	South				West		
Total			Pennsylvania		Total ¹⁸			North Carolina	Total ¹⁹	Arizona	
Total ¹⁶	Quarries only	Quarries with dressing plants			Total	Quarries only	Quarries with dressing plants				
22	15	7	19	12	24	17	7	5	15	6	1
22	15	7	19	12	24	17	7	5	15	6	2
22	15	7	19	12	24	17	7	5	15	6	3
7	...	7	6	2	7	...	7	2	2	...	4
45	41	4	41	18	32	25	7	5	31	12	5
264	186	78	219	122	696	194	502	100	214	106	6
227	158	69	191	92	611	147	464	85	194	103	7
77	57	20	68	33	175	74	101	27	61	28	8
49	36	13	42	19	132	48	84	17	47	22	9
1	1	...	1	1	12	3	9	2	1	...	10
27	20	7	25	13	31	23	8	8	13	6	11
12	10	2	11	6	16	12	4	6	3	1	12
85	69	16	74	35	292	82	210	32	83	39	13
79	69	10	68	35	145	82	63	13	77	39	14
...	...	...	...	...	...	...	...	...	...	...	15
79	69	10	68	35	145	82	63	13	77	39	16
...	...	...	...	...	...	...	...	...	...	...	17
6	...	6	6	...	147	...	147	19	6	...	18
...	...	...	...	3	...	...	...	...	4	4	19
0.53	0.59	0.25	0.55	0.51	0.11	0.30	0.03	0.16	0.37	0.31	20
151	119	32	125	81	521	134	387	68	156	78	21
109	88	21	92	49	342	87	255	43	128	66	22
2	2	...	2	...	67	5	62	9	...	...	23
}	17	15	{	12	81	29	52	13	10	5	24
	12	12		10	4	1	9	5	25		
	13	3		12	13	4	1	9	5	26	
	...	...		...	13	2	5	...	27		
7	1	6	7	7	4	3	1	...	4	2	28
17	15	2	17	4	10	8	2	2	34	7	29
20	16	4	20	6	37	3	34	3	42	16	30
2	1	1	2	1	1	1	...	...	8	8	31
...	...	...	...	...	32	...	32	...	3	...	32
2	2	...	2	...	...	...	...	...	1	1	33
7	5	2	7	2	2	...	2	1	8	...	34
9	8	1	9	3	2	2	...	2	22	7	35
2,873	1,558	1,315	2,468	988	3,300	1,970	1,330	789	1,904	929	36
59	43	101	59	52	25	41	16	46	41	42	37
2,845	1,550	1,295	2,440	982	2,421	1,916	505	475	1,576	803	38
28	8	20	28	6	879	54	825	314	328	126	39
...	...	...	...	...	...	...	...	...	...	...	40
5	4	1	4	5	3	2	1	...	2	1	41
...	...	...	...	...	...	...	...	...	...	...	42
2	2	...	2	1	1	...	1	...	...	...	43
...	...	...	...	...	...	...	...	...	1	...	44
...	...	...	...	...	...	...	...	...	...	...	45
...	...	...	...	...	...	...	...	...	...	...	46
(D)	...	(D)	(D)	...	(D)	...	(D)	...	...	...	47
(D)	...	(D)	(D)	...	(D)	...	(D)	...	...	...	48

¹⁵In addition to the States shown, Idaho, 3 establishments; New Mexico, 1; Utah, 3; Nevada, 3; Washington, 3; and California, 2. ¹⁶In addition to Pennsylvania, Connecticut, 2 establishments; and New York, 1. ¹⁷Illinois, 3 establishments; Wisconsin, 3; Missouri, 3; and Kansas, 3. ¹⁸In addition to North Carolina, Maryland, 5 establishments; Virginia, 3; Georgia, 2; Florida, 1; Tennessee, 3; Alabama, 1; Arkansas, 3; and Oklahoma, 1. ¹⁹In addition to Arizona, Colorado, 1 establishment; New Mexico, 1; Nevada, 1; Washington, 1; Oregon, 2; and California, 3. ²⁰See table 1, footnote 2. ²¹For quarries only, represents total shipments of rough dimension stone per man-hour. For quarries with dressing plants, represents net shipments (see table 1, footnote 2) of dressed dimension stone per man-hour. ²²Not calculated since the number of proprietors and firm members performing manual labor exceeded one-third of the number of production and development workers. ²³Includes the cost of products purchased for resale without further processing.

Table 4A.--NUMBER OF QUARRIES PRODUCING DIMENSION STONE IN THE UNITED STATES, BY TYPE OF QUARRY AND KIND OF STONE PRODUCED: 1954

Type of quarry	Total, all quarries	Kind of stone produced						
		Limestone	Granite	Slate	Marble	Trap rock	Sandstone	Miscellaneous stone
Total, all quarries.....	558	106	145	52	37	4	145	69
Open quarry.....	535	99	141	50	30	3	144	68
Underground mine.....	12	3	...	2	7	...	...	...
Not specified.....	11	4	4	...	...	1	1	1

Table 4B.--GENERAL STATISTICS FOR SELECTED DIMENSION STONE QUARRIES WITH DRESSING PLANTS WITH STONE SAWING
THE PRINCIPAL STONE PREPARATION METHOD: 1954

(For explanation of line captions, see INTRODUCTION)

Item	Type of dimension stone ¹				
	Limestone	Granite	Slate	Sandstone	Miscellaneous stone
Number of operating companies.....	15	13	12	9	4
Number of establishments.....	15	13	12	9	4
Number of quarries.....	15	13	12	9	4
Number of dressing plants.....	15	13	12	9	4
Value of shipments.....\$1,000..	5,017	4,776	1,810	1,211	412
Value added in quarrying and dressing.....do....	3,889	3,719	1,432	997	392
Number of persons engaged, total.....	655	780	281	234	76
Production and development workers.....	597	721	271	199	66
All other employees.....	52	52	...	20	8
Proprietors and firm members.....	6	7	10	15	2
Performing manual labor.....	5	1	5	8	...
Man-hours worked by production and development workers.....1,000..	1,162	1,479	577	410	176
Wages and salaries, total.....\$1,000..	2,371	2,450	878	687	270
Wages of production and development workers.....do....	2,030	2,147	878	613	215
Salaries of all other employees.....do....	341	303	...	74	55
New capital expenditures.....do....	170	156	21	46	43
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	11,172	15,199	4,602	4,979	1,560
Per production worker.....	19	21	17	25	24
Prime movers.....	6,037	6,228	2,190	3,324	880
Electric motors driven by purchased energy.....	5,135	8,971	2,412	1,655	680
Horsepower rating of electric motors driven by energy generated and used at the same establishment.....	40	350	...	...	...

¹Reports for no dimension marble quarries with dressing plants specified that stone sawing was the principal stone preparation method. For all marble quarries with dressing plants, combinations of preparation methods were reported.

Table 5A.—VALUE OF SHIPMENTS OF PRIMARY PRODUCTS OF DIMENSION STONE QUARRIES PRODUCED AT ALL QUARRIES AND VALUE OF SECONDARY PRODUCTS AND SERVICES AT DIMENSION STONE QUARRIES IN THE UNITED STATES: 1954

(For explanation of column captions, see INTRODUCTION)

Kind of quarry	Value of shipments and interplant transfers (\$1,000)				
	Total primary and secondary products produced at specified quarries	Primary products ¹			Secondary products and services
		Total	Produced at specified quarries	Produced at other quarries	
Dimension limestone quarries:					
Quarries only.....	3,754	7,255	3,170	4,085	² 584
Quarries with dressing plants.....	16,739	12,805	12,721	84	³ 4,018
Dimension granite quarries:					
Quarries only.....	5,738	10,385	5,649	4,736	⁴ 89
Quarries with dressing plants.....	22,760	17,071	17,071	...	⁵ 5,689
Dimension slate quarries (quarries with dressing plants only).....	6,904	6,438	6,438	...	⁶ 466
Dimension marble quarries:					
Quarries only.....	3,491	3,869	3,421	448	⁷ 70
Quarries with dressing plants.....	7,141	5,611	5,595	16	⁸ 1,546
Dimension sandstone quarries:					
Quarries only.....	5,292	6,129	5,036	1,093	⁹ 256
Quarries with dressing plants.....	5,788	4,276	4,276	...	¹⁰ 1,512
Dimension trap rock and Dimension stone, n.e.c., quarries:					
Quarries only.....	670	780	651	129	¹¹ 19
Quarries with dressing plants.....	626	588	582	6	¹² 44

¹Represents rough dimension stone for "Quarries only" and dressed dimension stone for "Quarries with dressing plants."

²Represents crushed and broken limestone (\$222,000); products purchased for resale without further processing (\$356,000); and receipts for contract services (\$6,000).

³Represents rough dimension limestone (\$3,349,000); crushed and broken limestone (\$277,000); and products purchased for resale without further processing and receipts for contract services (\$392,000).

⁴Represents crushed and broken granite, natural abrasives, and products purchased for resale without further processing.

⁵Represents rough dimension granite (\$4,569,000); crushed and broken granite (\$935,000); products purchased for resale without further processing (\$158,000); and receipts for contract services (\$27,000).

⁶Represents crushed and broken slate (\$42,000), and products purchased for resale without further processing (\$424,000).

⁷Represents crushed and broken marble.

⁸Represents rough dimension limestone and marble (\$739,000); crushed and broken limestone and marble (\$610,000); and products purchased for resale without further processing and receipts for contract services (\$197,000).

⁹Represents rough dimension limestone, crushed and broken sandstone, and building sand (\$50,000); products purchased for resale without further processing (\$171,000); and receipts for contract services (\$35,000).

¹⁰Represents rough dimension sandstone (\$1,064,000); crushed and broken sandstone (\$217,000); receipts for contract services (\$80,000); and products purchased for resale without further processing, natural abrasives, and miscellaneous unspecified products or services (\$151,000).

¹¹Represents crushed and broken miscellaneous stone, products purchased for resale without further processing, and receipts for contract services.

¹²Represents rough dimension miscellaneous stone, crushed and broken miscellaneous stone, and products purchased for resale without further processing.

Table 5B.—PRIMARY PRODUCTS OF DIMENSION STONE QUARRIES PRODUCED AT ALL QUARRIES IN THE UNITED STATES: 1954 AND 1939

(For explanation of column captions, see INTRODUCTION)

Type of dimension stone	1954									1939	
	Shipments and interplant transfers			Rough dimension stone received from other establishments for dressing			Net shipments and interplant transfers ¹			Production	
	Quantity		Value f.o.b. quarry or plant (\$1,000)	Quantity		Cost (\$1,000)	Quantity		Value f.o.b. quarry or plant (\$1,000)	Quantity (1,000 short tons)	Value f.o.b. quarry or plant (\$1,000)
	1,000 short tons	1,000 cu. ft.		1,000 short tons	1,000 cu. ft.		1,000 short tons	1,000 cu. ft.			
Limestone, total.....	1,254	17,020	20,060	8	110	75	1,246	16,910	19,985	1,327	5,248
Rough stone, total.....	876	11,916	7,255	8	110	75	868	11,806	7,180	² 1,156	² 2,873
For construction (walls, foundations, bridges, etc.).....	563	7,656	1,923	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	613	804
For architecture (buildings and other high-value construction work).....	292	3,968	4,917							541	2,064
For monuments, mausoleums, and other uses.....	21	292	415							2	⁵
Dressed stone, total.....	378	5,104	12,805	...	...	...	378	5,104	12,805	171	2,375
For construction (walls, foundations, bridges, etc.).....	226	3,057	8,053	...	...	...	226	3,057	8,053	129	2,119
For architecture (buildings and other high-value construction work).....	132	1,780	4,220	...	...	...	132	1,780	4,220		
For monuments, mausoleums, curbing, and other uses.....	20	267	532	...	...	...	20	267	532		

See footnotes at end of table.

Table 5B.—PRIMARY PRODUCTS OF DIMENSION STONE QUARRIES PRODUCED AT ALL QUARRIES IN THE UNITED STATES: 1954 AND 1939—Continued

Type of dimension stone	1954									1939	
	Shipments and interplant transfers			Rough dimension stone received from other establishments for dressing			Net shipments and interplant transfers ¹			Production	
	Quantity		Value f.o.b. quarry or plant (\$1,000)	Quantity		Cost (\$1,000)	Quantity		Value f.o.b. quarry or plant (\$1,000)	Quantity (1,000 short tons)	Value f.o.b. quarry or plant (\$1,000)
	1,000 short tons	1,000 cu. ft.		1,000 short tons	1,000 cu. ft.		1,000 short tons	1,000 cu. ft.			
Granite, total.....	764	9,249	27,456	26	315	765	738	8,934	26,691	740	7,966
Rough stone, total.....	537	6,502	10,385	26	315	765	511	6,187	9,620	³ 563	³ 4,298
For construction (walls, foundations, bridges, etc.).....	355	4,295	1,605							300	605
For architecture (buildings and other high-value construction work).....	18	223	612	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	56	392
For monuments and mausoleums.....	137	1,656	7,179							204	3,282
For other uses.....	27	328	989							3	19
Dressed stone, total.....	227	2,747	17,071	...	...	...	227	2,747	17,071	177	3,668
For construction (walls, foundations, bridges, etc.).....	35	424	1,813	...	...	...	35	424	1,813		
For architecture (buildings and other high-value construction work).....	29	347	5,874	...	...	...	29	347	5,874	47	1,619
For monuments and mausoleums.....	48	584	5,860	...	...	...	48	584	5,860	54	1,329
For curbing.....	107	1,296	3,021	...	...	...	107	1,296	3,021	52	481
For other uses.....	8	96	503	...	...	...	8	96	503	24	239
Slate, total.....	168	(NA)	6,438	6	(NA)	19	162	(NA)	6,419	⁴ 176	⁴ 3,425
Roofing slate.....	51	⁵ 133	2,755							⁶ 149	⁶ 2,645
Mill stock (blocks, slabs, and pieces).....	14	⁷ 2,698	1,958	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	20	735
Flagging.....	103	⁷ 16,406	1,725							7	45
Marble, total.....	123	1,465	9,480	14	166	575	109	1,299	8,905	178	4,920
Rough stone, total.....	86	1,022	3,869	14	166	575	72	856	3,294	⁸ 125	⁸ 1,323
For construction (walls, foundations, bridges, etc.).....	19	224	278							13	20
For architecture (buildings and other high-value construction work).....	39	463	3,021	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	78	1,147
For monuments, mausoleums, and other uses.....	28	335	570							34	156
Dressed stone, total.....	37	443	5,611	...	...	...	37	443	5,611	53	3,597
For architecture (buildings and other high-value construction work).....	17	202	2,965	...	...	...	17	202	2,965	36	2,485
For monuments and mausoleums.....	20	241	2,646	...	...	...	20	241	2,646	17	1,112
Sandstone, total.....	557	7,193	10,405	10	131	78	547	7,062	10,327	771	1,812
Rough stone, total.....	412	5,255	6,129	10	131	78	402	5,124	6,051	⁹ 657	⁹ 833
For construction (walls, foundations, bridges, etc.).....	254	3,213	3,194							617	638
For architecture (buildings and other high-value construction work).....	134	1,702	2,217	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	31	117
For monuments, mausoleums, and other uses.....	24	340	718							9	78
Dressed stone, total.....	145	1,938	4,276	...	...	...	145	1,938	4,276	114	979
For construction (walls, foundations, bridges, etc.).....	43	577	758	...	...	...	43	577	758		
For architecture (buildings and other high-value construction work).....	52	695	1,990	...	...	...	52	695	1,990	33	414
For monuments, mausoleums, curbing, and other uses.....	50	666	1,528	...	...	...	50	666	1,528	81	565
Trap rock (rough dimension stone for construction, architecture, and other uses).....	34	400	183	...	...	...	34	400	183	¹⁰ 23	¹⁰ 29
Miscellaneous dimension stone, total....	112	1,328	1,185	...	...	...	112	1,328	1,185	12	20
Rough stone, total.....	102	1,208	597	...	...	...	102	1,208	597	12	20
For construction (walls, foundations, bridges, etc.) and for architecture (buildings and other high-value construction work).....	88	1,047	399	...	...	...	88	1,047	399	12	19
For monuments, mausoleums, and other uses.....	14	161	198	...	...	...	14	161	198	(¹¹)	1
Dressed stone, total.....	10	120	588	...	...	...	10	120	588	...	...
For construction (walls, foundations, bridges, etc.) and for architecture (buildings and other high-value construction work).....	4	50	428	...	...	...	4	50	428	...	...
For curbing and other uses.....	6	70	160	...	...	...	6	70	160	...	...

NA Not available. ¹Represents shipments and interplant transfers less stone received from other establishments for dressing. ²In addition, 15 thousand tons of rough dimension limestone valued at \$19 thousand were produced at establishments too small to come within the scope of the 1939 minerals census. ³In addition, 9 thousand tons of rough dimension granite valued at \$60 thousand were produced at establishments too small to come within the scope of the 1939 minerals census. ⁴In addition, 2 thousand tons of rough dimension slate valued at \$8 thousand were produced at establishments too small to come within the scope of the 1939 minerals census. ⁵Figures are in thousands of squares. ⁶Includes 3 thousand tons of rough dimension slate valued at \$9 thousand for construction and other uses and dressed dimension slate for other construction and architecture uses, for monuments and mausoleums, and for other uses. ⁷Figures are in thousands of square feet. ⁸In addition, 1 thousand tons of rough dimension marble valued at \$10 thousand were produced at establishments too small to come within the scope of the 1939 minerals census. ⁹In addition, 20 thousand tons of rough dimension sandstone valued at \$49 thousand were produced at establishments too small to come within the scope of the 1939 minerals census. ¹⁰Represents rough dimension trap rock for construction and architecture and dressed dimension trap rock for construction and flagging. ¹¹Less than 500 tons.

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(For explanation of column captions, see INTRODUCTION)

Number of employees in establishment	Number of establishments	Value of shipments (\$1,000)	Value added in quarrying (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers	All other employees	
DIMENSION LIMESTONE QUARRIES									
United States, total.....	65	3,754	2,942	472	28	872	1,429	127	89
0.....	9	23	21	...	...	...	...	...	...
1-4.....	36	422	324	74	...	116	155	...	8
5-9.....	6	210	156	39	...	67	87	...	9
10-19.....	3	265	219	34	4	55	91	19	4
20-49.....	9	2,834	2,222	325	24	634	1,096	108	68
50-99.....	2								
DIMENSION GRANITE QUARRIES									
United States, total.....	86	5,738	4,590	917	50	1,769	2,404	235	192
0.....	3	11	9	...	...	...	...	...	...
1-4.....	37	489	386	78	1	133	194	4	28
5-9.....	17	718	608	108	3	209	293	8	34
10-19.....	14	1,320	995	188	12	367	549	50	79
20-49.....	11	1,832	1,525	298	18	577	797	79	20
50-99.....	4	1,368	1,067	245	16	483	571	94	31
DIMENSION MARBLE QUARRIES									
United States, total.....	30	3,491	2,893	612	25	1,245	1,505	135	58
0.....	1	115	108	14	1	24	34	3	36
1-4.....	8								
5-9.....	7	200	164	42	2	75	87	4	14
10-19.....	4	258	231	43	2	90	109	8	...
20-49.....	9	2,918	2,390	513	20	1,056	1,275	120	8
250-499.....	1								
DIMENSION SANDSTONE QUARRIES									
United States, total.....	115	5,292	4,178	925	48	1,752	2,273	183	372
0.....	10	205	113	...	...	...	...	...	...
1-4.....	58	599	523	126	3	203	248	8	75
5-9.....	22	946	760	134	6	258	350	14	35
10-19.....	15	1,077	810	168	23	355	433	80	90
20-49.....	7	1,140	879	173	9	349	556	32	51
50-99.....	1	1,325	1,093	324	7	587	686	49	121
100-249.....	2								
DIMENSION TRAP ROCK AND DIMENSION STONE, N.E.C., QUARRIES									
United States, total.....	55	670	552	142	5	255	327	7	25
0.....	8	30	21	...	...	...	...	...	4
1-4.....	38	303	248	67	3	113	142	4	12
5-9.....	7	337	283	75	2	142	185	3	9
10-19.....	2								

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 6B.—NUMBER OF DIMENSION STONE QUARRIES CLASSIFIED BY EMPLOYMENT SIZE OF QUARRY AND BY GEOGRAPHIC DIVISIONS AND STATES: 1954

Geographic division and State	Dimension limestone quarries																
	All quarries			Quarries with an average of—													
				No employees		1-4 employees		5-9 employees		10-19 employees		20-49 employees		50-99 employees		100-249 em- ployees (quar- ries with dress- ing plants)	500-999 em- ployees (quar- ries with dress- ing plants)
	To- tal	Quar- ries only	Quar- ries with dress- ing plants	Quar- ries only	Quar- ries with dress- ing plants	Quar- ries only	Quar- ries with dress- ing plants	Quar- ries only	Quar- ries with dress- ing plants	Quar- ries only	Quar- ries with dress- ing plants	Quar- ries only	Quar- ries with dress- ing plants	Quar- ries only	Quar- ries with dress- ing plants		
United States, total.....	106	65	41	9	3	36	6	6	8	3	6	9	6	2	4	7	1
Middle Atlantic, total.....	6	6	...	...	...	3	...	1	...	1	...	1	...	...	...	...	...
Pennsylvania.....	6	6	...	...	...	3	...	1	...	1	...	1	...	...	...	...	...
East North Central, total.....	47	24	23	2	3	11	4	1	3	...	2	8	2	2	2	6	1
Indiana.....	18	10	8	...	...	2	...	...	...	...	...	7	...	1	1	6	1
Illinois.....	4	4	...	...	...	4	...	...	...	...	...	...	...	...	...	...	...
Michigan.....	1	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...
Wisconsin.....	24	10	14	2	3	5	4	1	2	...	2	1	2	1	1	...	...
West North Central, total.....	24	15	9	4	...	9	...	1	3	1	3	...	2	...	1	...	...
Minnesota.....	5	1	4	...	...	1	...	...	1	...	1	...	1	...	1	...	...
Iowa.....	1	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
Missouri.....	10	9	1	1	...	7	...	...	1	1	...	...	...	...	...	...	...
Kansas.....	8	4	4	3	...	...	...	1	1	...	2	...	1	...	...	...	...
South Atlantic, total.....	8	7	1	2	...	4	1	...	...	1	...	...	...	...	...	...	...
Maryland.....	2	2	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...
Virginia.....	2	2	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...
Georgia.....	1	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
Florida.....	3	2	1	1	...	1	1	...	...	...	...	...	...	...	...	...	...
East South Central, total.....	6	5	1	1	...	4	...	...	...	...	...	...	...	...	...	1	...
Kentucky.....	1	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
Tennessee.....	4	4	...	1	...	3	...	...	...	...	...	...	...	...	...	...	...
Alabama.....	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...
West South Central, total.....	12	6	6	...	...	3	1	3	1	...	1	...	2	...	1	...	...
Arkansas.....	3	2	1	...	...	2	1	...	...	...	...	...	...	...	...	...	...
Oklahoma.....	1	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...
Texas.....	8	3	5	...	...	1	...	2	1	...	1	...	2	...	1	...	...
Mountain, total.....	2	2	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...
Colorado.....	2	2	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...
Pacific, total.....	1	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...
California.....	1	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...

Geographic division and State	Dimension granite quarries																	
	All quarries			Quarries with an average of--														
				No employees		1-4 employees		5-9 employees		10-19 employees		20-49 employees		50-99 employees		100-249 employ- ees (quar- ries with dress- ing plants)	250-499 employ- ees (quar- ries with dress- ing plants)	500-999 employ- ees (quar- ries with dress- ing plants)
	Total	Quar- ries only	Quar- ries with dress- ing plants	Quar- ries only	Quar- ries with dress- ing plants	Quar- ries only	Quar- ries with dress- ing plants	Quar- ries only	Quar- ries with dress- ing plants	Quar- ries only	Quar- ries with dress- ing plants	Quar- ries only	Quar- ries with dress- ing plants	Quar- ries only	Quar- ries with dress- ing plants			
United States, total..	145	86	59	3	4	37	11	17	7	14	8	11	15	4	5	6	2	1
New England, total.....	44	21	23	1	2	13	6	2	1	2	4	2	4	1	1	4	...	1
Maine.....	9	2	7	...	1	2	2	...	...	...	...	...	3	...	1	...	...	...
New Hamp- shire.....	4	2	2	...	...	2	1	...	...	...	...	...	1	...	...	...	...	...
Vermont....	7	3	4	...	...	1	...	1	...	...	...	...	1	...	...	4	...	...
Massa- chusetts..	12	5	7	...	1	2	2	...	1	2	2	1	...	...	...	...	...	1
Rhode Island....	3	2	1	...	...	1	...	...	...	...	1	1	...	...	...	...	...	...
Connecticut	9	7	2	1	...	5	1	1	...	...	1	...	...	...	...	...	...	...

Table 6B.—NUMBER OF DIMENSION STONE QUARRIES CLASSIFIED BY EMPLOYMENT SIZE OF QUARRY AND BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

Geographic division and State	Dimension granite quarries—Continued																	
	All quarries			Quarries with an average of—														
				No employees		1-4 employees		5-9 employees		10-19 employees		20-49 employees		50-99 employees		100-249 employ- ees	250-499 employ- ees	500-999 employ- ees
	To- tal	Quar- ries only	Quar- ries with dress- ing plants	Quar- ries only	Quar- ries with dress- ing plants	Quar- ries only	Quar- ries with dress- ing plants	Quar- ries only	Quar- ries with dress- ing plants	Quar- ries only	Quar- ries with dress- ing plants	Quar- ries only	Quar- ries with dress- ing plants	Quar- ries only	Quar- ries with dress- ing plants	(quar- ries with dress- ing plants)	(quar- ries with dress- ing plants)	(quar- ries with dress- ing plants)
Middle Atlantic, total.....	10	6	4	...	1	3	...	2	...	1	1	...	2	...	...	...	...	...
New York....	5	4	1	...	1	2	...	1	...	1	...	...	...	...	...	...	...	...
Pennsyl- vania.....	5	2	3	...	...	1	...	1	...	...	1	...	2	...	...	...	...	...
East North Central, total	10	6	4	...	...	3	1	...	...	1	1	2	2	...	...	...	...	...
Wisconsin...	10	6	4	...	...	3	1	...	...	1	1	2	2	...	...	...	...	...
West North Central, total	23	19	4	1	...	8	...	5	...	2	...	3	...	...	2	1	1	...
Minnesota...	14	12	2	...	...	8	...	3	...	1	...	...	...	...	...	1	1	...
Missouri...	1	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
South Dakota.....	8	6	2	1	...	...	...	2	...	1	...	2	...	...	2	...	...	...
South Atlantic, total.....	38	26	12	...	...	5	2	7	2	7	1	4	4	3	1	1	1	...
Maryland....	2	2	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...
North Carolina...	7	4	3	...	...	1	2	...	...	3	...	...	...	...	...	...	1	...
South Carolina...	1	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...
Georgia.....	28	19	9	...	...	4	...	6	2	3	1	4	4	2	1	1	...	...
West South Central, total	6	2	4	...	...	2	...	...	...	...	...	3	...	...	1	...	...	...
Oklahoma....	3	1	2	...	...	1	...	...	...	...	...	2	...	...	...	...	...	...
Texas.....	3	1	2	...	...	1	...	...	...	...	...	1	...	...	1	...	...	...
Mountain, total	3	1	2	...	...	1	...	...	1	...	1	...	...	...	...	...	...	...
Colorado....	3	1	2	...	...	1	...	...	1	...	1	...	...	...	...	...	...	...
Pacific, total.	11	5	6	1	1	2	2	1	3	1	...	...	...	...	...	...	...	...
Washington..	2	1	1	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...
Oregon.....	2	1	1	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...
California..	7	3	4	...	1	1	1	1	2	1	...	...	...	...	...	...	...	...

Geographic division and State	Dimension slate quarries (quarries with dressing plants)								
	All quarries	Quarries with an average of—							
		No employees	1-4 employees	5-9 employees	10-19 employees	20-49 employees	50-99 employees	100-249 employees	
United States, total.....		52	6	12	4	11	6	12	1
New England, total.		17	2	6	2	3	1	2	1
Maine.....		1	...	...	...	...	...	...	1
Vermont.....		16	2	6	2	3	1	2	...
Middle Atlantic, total.....		29	3	5	2	7	4	8	...
New York.....		14	2	5	2	4	...	1	...
Pennsylvania....		15	1	...	...	3	4	7	...
South Atlantic, total.....		4	...	1	...	...	1	2	...
Virginia.....		4	...	1	...	...	1	2	...
Pacific, total.....		2	1	...	...	1	...	...	...
California.....		2	1	...	...	1	...	...	...

Table 6B.—NUMBER OF DIMENSION STONE QUARRIES CLASSIFIED BY EMPLOYMENT SIZE OF QUARRY AND BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

Geographic division and State	Dimension marble quarries												Dimension trap rock quarries (quarries only)		
	All quarries			Quarries with an average of—									All quar- ries	Quarries with an average of—	
	To- tal	Quar- ries only	Quar- ries with dress- ing plants	No em- ployees (quar- ries only)	1-4 employ- ees (quar- ries only)	5-9 employ- ees (quar- ries only)	10-19 employ- ees (quar- ries only)	20-49 employ- ees (quar- ries only)	50-99 employ- ees (quar- ries with dress- ing plants)	100-249 employees		250-499 employ- ees (quar- ries with dress- ing plants)			
										Quar- ries only	Quar- ries with dress- ing plants				
United States, total.....	37	31	6	1	8	7	4	9	1	2	2	3	4	3	
New England, total..	8	8	...	...	1	3	...	2	...	2	...	...	1	1
Vermont.....	8	8	...	...	1	3	...	2	...	2	...	...	...	...
Connecticut.....	...	...	...	...	...	...	...	...	...	...	...	...	1	1
East North Central, total.....	1	1	...	...	1	...	...	...	...	...	...	...	...	...
Illinois.....	1	1	...	...	1	...	...	...	...	...	...	...	...	...
West North Central, total.....	4	3	1	...	1	1	1	...	...	...	...	1	...	...
Missouri.....	4	3	1	...	1	1	1	...	...	...	...	1	...	...
South Atlantic, total.....	3	1	2	...	1	...	...	...	1	...	...	1	...	...
North Carolina...	1	...	1	...	...	...	...	...	1	...	...	...	...	...
Georgia.....	2	1	1	...	1	...	...	...	...	...	...	1	...	...
East South Central, total.....	17	14	3	...	1	3	3	7	...	...	2	1	...	...
Kentucky.....	1	1	...	...	1	...	...	...	...	...	...	...	...	...
Tennessee.....	14	13	1	...	...	3	3	7	...	...	...	1	...	...
Alabama.....	2	...	2	...	...	...	...	...	...	...	2	...	...	...
West South Central, total.....	2	2	...	1	1	...	...	...	...	...	...	...	...	...
Arkansas.....	2	2	...	1	1	...	...	...	...	...	...	...	...	...
Mountain, total....	2	2	...	...	2	...	...	...	...	...	...	...	1	...
Nevada.....	2	2	...	...	2	...	...	...	...	...	...	...	1	...
Pacific, total.....	...	...	...	...	...	...	...	...	...	...	...	...	2	2
Washington.....	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Oregon.....	...	...	...	...	...	...	...	...	...	...	...	...	1	1

	Dimension sandstone quarries																
	All quarries			Quarries with an average of—													
				No employees		1-4 employees		5-9 employees		10-19 employees		20-49 employees		50-99 employ- ees (quar- ries only)	100-249 employees		250-499 employ- ees (quar- ries with dress- ing plants)
	To- tal	Quar- ries only	Quar- ries with dress- ing plants	Quar- ries only	Quar- ries with dress- ing plants	Quar- ries only	Quar- ries with dress- ing plants	Quar- ries only	Quar- ries with dress- ing plants	Quar- ries only	Quar- ries with dress- ing plants	Quar- ries only	Quar- ries with dress- ing plants				
United States, total.....	145	115	30	10	4	58	8	22	3	15	6	7	6	1	2	2	1
New England, total..	1	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...
Massachusetts....	1	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...
Middle Atlantic, total.....	36	25	11	2	1	13	3	5	1	3	3	2	3	...	...	...	...
New York.....	9	5	4	...	...	3	...	...	2	2	...	...	2	...	...	...	...
Pennsylvania.....	27	20	7	2	1	10	3	5	1	1	1	2	1	...	...	...	...
East North Central, total.....	28	19	9	2	...	11	2	3	1	2	1	1	2	...	...	2	1
Ohio.....	15	9	6	1	...	5	...	3	...	...	1	...	2	...	...	2	1
Indiana.....	4	4	...	...	...	1	...	...	...	2	...	1	...	...	...	...	...
Michigan.....	2	1	1	...	...	1	...	...	1	...	...	...	...	...	...	...	...
Wisconsin.....	7	5	2	1	...	4	2	...	...	...	...	...	...	...	...	...	...
West North Central, total.....	2	2	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...
Missouri.....	1	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
Kansas.....	1	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...
South Atlantic, total.....	5	5	...	...	...	2	...	1	...	1	...	1	...	...	...	...	...
Maryland.....	2	2	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...
Virginia.....	1	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...
West Virginia.....	1	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
Georgia.....	1	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...

Table 6B.—NUMBER OF DIMENSION STONE QUARRIES CLASSIFIED BY EMPLOYMENT SIZE OF QUARRY AND BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

Dimension sandstone quarries—Continued																	
Geographic division and State	All quarries			Quarries with an average of—													
				No employees		1-4 employees		5-9 employees		10-19 employees		20-49 employees		50-99 employ- ees (quar- ries only)	100-249 employees		250-499 employ- ees (quar- ries with dress- ing plants)
	Total	Quar- ries only	Quar- ries with dress- ing plants	Quar- ries only	Quar- ries with dress- ing plants	Quar- ries only	Quar- ries with dress- ing plants	Quar- ries only	Quar- ries with dress- ing plants	Quar- ries only	Quar- ries with dress- ing plants	Quar- ries only	Quar- ries with dress- ing plants	Quar- ries only	Quar- ries with dress- ing plants	Quar- ries only	Quar- ries with dress- ing plants
East South Central, total.....	31	29	2	2	...	14	...	7	1	2	1	1	...	1	2	...	...
Kentucky.....	2	2	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...
Tennessee.....	26	24	2	2	...	10	...	6	1	2	1	1	...	1	2	...	...
Alabama.....	3	3	...	...	...	2	...	1	...	...	...	...	...	...	...	...	...
West South Central, total.....	11	11	...	2	...	4	...	1	...	3	...	1	...	...	...	...	...
Arkansas.....	7	7	...	1	...	2	...	...	...	3	...	1	...	...	...	...	...
Oklahoma.....	2	2	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...
Texas.....	2	2	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...
Mountain, total.....	26	19	7	2	3	9	3	4	...	4	...	...	1	...	...	...	...
Idaho.....	3	1	2	...	1	...	1	...	...	1	...	...	...	...	...	...	...
Colorado.....	12	9	3	2	1	5	1	1	...	1	...	...	1	...	...	...	...
New Mexico.....	1	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...
Arizona.....	4	3	1	...	1	...	...	1	...	2	...	...	...	...	...	...	...
Utah.....	3	3	...	...	...	2	...	1	...	...	...	...	...	...	...	...	...
Nevada.....	3	3	...	...	...	2	...	1	...	...	...	...	...	...	...	...	...
Pacific, total.....	5	5	...	...	...	4	...	...	...	...	...	1	...	...	...	...	...
Washington.....	3	3	...	...	...	2	...	...	...	...	...	1	...	...	...	...	...
California.....	2	2	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...

Geographic division and State	Dimension stone, n.e.c., quarries												
	All quarries			Quarries with an average of—									
				No employees		1-4 employees		5-9 employees		10-19 employees		50-99 employ- ees (quar- ries with dress- ing plants)	
	Total	Quar- ries only	Quar- ries with dress- ing plants	Quar- ries only	Quar- ries with dress- ing plants	Quar- ries only	Quar- ries with dress- ing plants	Quar- ries only	Quar- ries with dress- ing plants	Quar- ries only	Quar- ries with dress- ing plants	Quar- ries only	Quar- ries with dress- ing plants
United States, total...	69	51	18	8	1	35	12	7	3	1	1	1	1
New England, total.....	1	1	...	...	...	1	...	...	...	...	...	...	...
Connecticut.....	1	1	...	...	...	1	...	...	...	...	...	...	...
Middle Atlantic, total.....	20	13	7	3	...	8	7	2	...	...	...	...	...
New York.....	1	...	1	...	...	...	1	...	...	...	...	...	...
Pennsylvania.....	19	13	6	3	...	8	6	2	...	...	...	...	...
East North Central, total....	6	4	2	1	...	3	2	...	...	...	...	...	...
Illinois.....	3	3	...	1	...	2	...	...	...	...	...	...	...
Wisconsin.....	3	1	2	...	...	1	2	...	...	...	...	...	...
West North Central, total....	6	6	...	1	...	4	...	1	...	...	...	...	...
Missouri.....	3	3	...	1	...	1	...	1	...	...	...	...	...
Kansas.....	3	3	...	...	...	3	...	...	...	...	...	...	...
South Atlantic, total.....	16	10	6	1	...	7	3	2	1	...	1	1	1
Maryland.....	5	4	1	1	...	2	1	1	...	...	...	...	...
Virginia.....	3	1	2	...	...	1	1	...	...	...	...	...	1
North Carolina.....	5	3	2	...	...	3	1	...	...	...	1	...	...
Georgia.....	2	1	1	...	...	...	...	1	1	...	...	...	...
Florida.....	1	1	...	...	...	1	...	...	...	...	...	...	...
East South Central, total....	4	4	...	1	...	3	...	...	...	...	...	...	...
Tennessee.....	3	3	...	1	...	2	...	...	...	...	...	...	...
Alabama.....	1	1	...	...	...	1	...	...	...	...	...	...	...
West South Central, total....	4	3	1	...	...	2	...	...	1	1	...	...	...
Arkansas.....	3	2	1	...	...	1	...	...	1	1	...	...	...
Oklahoma.....	1	1	...	...	...	1	...	...	...	...	...	...	...
Mountain, total.....	8	8	...	...	...	6	...	2	...	...	...	...	...
Colorado.....	1	1	...	...	...	1	...	...	...	...	...	...	...
New Mexico.....	1	1	...	...	...	1	...	...	...	...	...	...	...
Arizona.....	6	6	...	...	...	4	...	2	...	...	...	...	...
Pacific, total.....	4	2	2	1	1	1	...	...	1	...	...	...	...
Oregon.....	1	...	1	...	1	...	...	...	...	...	...	...	...
California.....	3	2	1	1	...	1	...	...	1	...	...	...	...

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 7.—MONTHLY EMPLOYMENT IN THE DIMENSION STONE INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954

Industry, geographic division, and State	Average employ- ment for the year ¹	Number of employees by month											
		January	Feb- ruary	March	April	May	June	July	August	Septem- ber	October	Novem- ber	December
DIMENSION LIMESTONE INDUSTRY													
United States, total.....	500	395	393	423	531	580	572	569	572	531	489	473	410
Middle Atlantic (Pennsylvania).	55	57	54	60	61	63	57	47	55	56	53	55	40
North Central.. ..	396	308	304	322	422	467	465	473	461	423	384	363	323
Indiana.....	222	148	146	158	249	269	279	281	278	249	214	205	176
Wisconsin.....	116	107	106	105	120	125	121	132	126	121	119	111	107
South and West.....	49	30	35	41	48	50	50	49	56	52	52	55	47
DIMENSION GRANITE INDUSTRY													
United States, total.....	967	939	940	966	984	981	975	993	1,003	987	945	937	903
New England.....	199	186	188	195	203	200	206	212	220	216	197	195	166
Middle Atlantic.....	36	33	32	34	39	38	37	36	38	37	32	38	38
North Central.....	220	203	204	214	214	218	218	227	227	225	221	220	221
South.....	486	486	486	492	493	490	490	495	489	482	476	465	459
West.....	26	31	30	31	35	35	24	23	29	27	19	19	19
DIMENSION MARBLE INDUSTRY													
United States.....	637	611	620	625	643	659	649	642	642	646	641	624	622
DIMENSION SANDSTONE INDUSTRY													
United States, total.....	973	740	769	831	926	1,007	1,065	1,076	1,115	1,078	1,078	1,001	916
East.....	231	110	118	169	218	248	290	295	289	286	286	246	202
Pennsylvania.....	108	46	44	74	112	132	142	144	139	136	128	111	96
Ohio.....	29	13	14	20	20	20	29	34	35	42	43	36	35
Indiana.....	50	36	42	45	45	51	66	61	58	53	57	50	41
South and West.....	742	630	651	662	708	759	775	781	826	792	792	755	714
Arkansas.....	62	45	49	53	67	79	75	64	61	58	62	58	58
DIMENSION TRAP ROCK AND DIMEN- SION STONE, N.E.C., INDUSTRIES													
United States, total.....	147	114	113	127	137	162	169	170	161	161	159	131	110
Northeast.....	37	24	24	31	36	54	51	47	44	37	35	28	28
South.....	51	38	35	45	45	49	52	56	58	59	55	55	44
North Central and West.....	59	52	54	51	56	59	66	67	59	65	69	48	38

¹Represents the sum of the average employment figures for the year as shown in the separate establishment reports. These are the averages shown in other tables of this report. Because of roundings, the sums of such average figures may differ slightly from the average of the January to December totals shown.

Table 8.—GENERAL STATISTICS FOR DIMENSION STONE ESTABLISHMENTS CLASSIFIED BY OUTPUT PER MAN-HOURS FOR THE UNITED STATES: 1954

(For explanation of column captions, see INTRODUCTION)

Industry and tons of rough dimension stone per man-hour	Number of estab- lish- ments	Value of shipments (\$1,000)	Value added in quarrying (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expendi- tures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
DIMENSION LIMESTONE INDUSTRY									
United States, total.....	65	3,754	2,942	472	28	872	1,429	127	89
Less than 0.05.....	4	82	55	19	...	28	39	...	...
0.05-0.09.....	4	115	91	32	1	59	100	4	24
0.10-0.14.....	1	60	50	15	...	23	50	...	...
0.15-0.19.....	2								
0.20-0.29.....	2	404	363	55	4	107	186	24	6
0.30-0.39.....	2								
0.40-0.59.....	...	...	...	...	...	...	...	...	...
0.60-0.79.....	4	220	170	45	...	89	91	...	...
0.80-0.99.....	1								
1.00-1.49.....	3	1,047	682	96	6	194	402	26	46
1.50 and over.....	9	745	667	65	13	125	181	53	4
Unclassified ¹	33	1,081	864	145	4	247	380	20	9
DIMENSION GRANITE INDUSTRY									
United States, total.....	86	5,738	4,590	917	50	1,769	2,404	235	192
Less than 0.05.....	9	489	453	77	6	155	230	38	14
0.05-0.09.....	14	1,806	1,395	341	19	660	812	114	66
0.10-0.14.....	5	168	137	28	1	49	60	4	2
0.15-0.19.....	1	46	38	5	...	10	15	...	1
0.20-0.29.....	6	426	357	80	1	157	228	3	13
0.30-0.39.....	6	287	239	70	1	122	152	4	6
0.40-0.59.....	2	186	129	26	...	49	71	6	17
0.60-0.70.....	3								
0.80-0.99.....	3	156	127	26	...	50	74	...	2
1.00-1.49.....	3	46	41	10	2	20	20	6	3
1.50 and over.....	6	215	156	34	...	65	94	...	3
Unclassified ¹	28	1,913	1,518	220	20	432	648	60	65
DIMENSION MARBLE INDUSTRY									
United States, total.....	30	3,491	2,893	612	25	1,245	1,505	135	58
Less than 0.05.....	3	412	360	85	4	166	197	32	...
0.05-0.09.....	5	227	194	56	3	101	126	9	6
0.10-0.14.....	4	202	188	49	3	84	107	22	44
0.15-0.19.....	...	...	...	...	...	...	...	...	...
0.20-0.29.....	...	...	...	...	...	...	...	...	...
0.30-0.39.....	...	...	...	...	...	...	...	...	...
0.40-0.59.....	1	411	347	98	5	193	211	22	8
0.60-0.79.....	5								
0.80-0.99.....	1	...	...	...	...	...	...	...	...
1.00-1.49.....	1	...	...	...	...	...	...	...	...
1.50 and over.....	...	...	...	...	...	...	...	...	...
Unclassified ¹	10	2,239	1,804	324	10	701	864	50	...
DIMENSION SANDSTONE INDUSTRY									
United States, total.....	115	5,292	4,178	925	48	1,752	2,273	183	372
Less than 0.05.....	6	373	231	46	10	95	109	34	34
0.05-0.09.....	6	438	384	73	2	136	309	4	...
0.10-0.14.....	11	633	531	151	11	266	295	63	101
0.15-0.19.....	9	459	429	69	7	145	153	31	32
0.20-0.29.....	8	258	196	39	5	76	89	20	21
0.30-0.39.....	3	74	64	17	...	34	52	...	6
0.40-0.59.....	5	154	120	29	...	60	89	...	3
0.60-0.79.....	6	75	62	17	...	30	46	...	24
0.80-0.99.....	6	909	660	211	...	381	474	...	31
1.00-1.49.....	6	332	291	53	3	113	134	11	39
1.50 and over.....	4	105	74	12	...	23	41	...	...
Unclassified ¹	45	1,482	1,136	208	10	393	482	20	81
DIMENSION TRAP ROCK AND DIMENSION STONE, N.E.C., INDUSTRIES									
United States, total.....	55	670	552	142	5	255	327	7	25
Less than 0.05.....	2	80	74	22	...	41	41	...	1
0.05-0.09.....	3								
0.10-0.14.....	4	13	12	4	...	7	8	...	2
0.15-0.19.....	2	60	51	16	1	31	39	2	5
0.20-0.29.....	1								
0.30-0.39.....	1	77	61	17	2	31	45	3	...
0.40-0.59.....	3								
0.60-0.79.....	2	95	69	16	...	27	36	...	1
0.80-0.99.....	3								
1.00-1.49.....	4	...	...	...	...	...	...	...	...
1.50 and over.....	2	...	...	...	...	...	...	...	...
Unclassified ¹	28	345	285	67	2	118	158	2	16

¹Represents principally reports indicating that a substantial proportion of the production was done by proprietors or partners who regularly worked at the establishment. Man-hours for these proprietors are not included above. Significant ratios of output per man-hour could not be computed for such reports.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 9.—GENERAL STATISTICS FOR DIMENSION STONE ESTABLISHMENTS CLASSIFIED BY RATIO OF WAGES AND SALARIES TO VALUE ADDED IN MINING IN THE UNITED STATES: 1954

(For explanation of column captions, see INTRODUCTION)

Industry and ratio of wages and salaries to value added in mining	Number of establishments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
DIMENSION LIMESTONE INDUSTRY									
United States, total.....	65	3,754	2,942	472	28	872	1,429	127	89
Less than 0.30.....	4	179	158	14	2	18	31	8	...
0.30-0.39.....	9	1,202	1,044	95	13	204	296	54	7
0.40-0.49.....	4	150	109	36	...	39	50	...	6
0.50-0.59.....	19	821	673	127	3	246	375	20	6
0.60-0.69.....	8	1,022	654	104	8	203	387	37	54
0.70-0.79.....	3	283	246	60	1	105	195	4	...
0.80-0.89.....	1								
0.90-0.99.....	1								
1.00 and over.....	7	58	23	36	1	57	95	4	16
Unclassified ¹	9	39	35	...	...	...	...	...	...
DIMENSION GRANITE INDUSTRY									
United States, total.....	86	5,738	4,590	917	50	1,769	2,404	235	192
Less than 0.30.....	6	826	704	64	...	122	150	...	3
0.30-0.39.....	8	398	349	43	1	86	121	4	5
0.40-0.49.....	8	546	461	78	3	146	191	13	30
0.50-0.59.....	13	1,072	904	164	18	327	414	97	35
0.60-0.69.....	14	1,461	1,141	219	15	448	649	72	62
0.70-0.79.....	8	595	462	130	3	248	332	12	6
0.80-0.89.....	7	479	319	108	2	199	257	10	15
0.90-0.99.....	3	193	165	50	7	84	127	25	10
1.00 and over.....	15	155	74	61	1	109	163	2	26
Unclassified ¹	4	13	11	...	...	...	...	...	...
DIMENSION MARBLE INDUSTRY									
United States, total.....	30	3,491	2,893	612	25	1,245	1,505	135	58
Less than 0.30.....	5	1,028	787	79	...	158	194	...	36
0.30-0.39.....	2								
0.40-0.49.....	4	329	274	49	1	100	124	3	8
0.50-0.59.....	2								
0.60-0.69.....	5	1,578	1,378	320	15	682	836	77	5
0.70-0.79.....	2	363	285	97	4	188	216	15	3
0.80-0.89.....	5								
0.90-0.99.....	4								
1.00 and over.....	4	193	169	67	5	117	135	40	6
Unclassified ¹	1								
DIMENSION SANDSTONE INDUSTRY									
United States, total.....	115	5,292	4,178	925	48	1,752	2,273	183	372
Less than 0.30.....	15	716	603	70	5	126	135	12	19
0.30-0.39.....	13	480	441	51	2	114	149	5	58
0.40-0.49.....	8	384	229	33	2	69	93	6	11
0.50-0.59.....	21	701	621	147	2	273	320	4	21
0.60-0.69.....	12	692	583	167	9	297	333	55	117
0.70-0.79.....	9	1,237	1,008	261	7	481	721	35	30
0.80-0.89.....	9	557	426	107	15	229	319	55	64
0.90-0.99.....	2								
1.00 and over.....	15								
Unclassified ¹	11	206	114	...	...	...	...	...	...
DIMENSION TRAP ROCK AND DIMENSION STONE, N.E.C., INDUSTRY									
United States, total.....	55	670	551	142	5	255	327	7	25
Less than 0.30.....	2	108	92	16	2	25	31	3	5
0.30-0.39.....	6								
0.40-0.49.....	1	251	209	60	...	101	117	...	10
0.50-0.59.....	14								
0.60-0.69.....	8	68	57	16	...	32	36	...	1
0.70-0.79.....	6	185	148	32	...	67	106	...	1
0.80-0.89.....	1								
0.90-0.99.....	9								
1.00 and over.....	9	36	30	18	3	30	37	4	4
Unclassified ¹	8	22	15	...	...	...	...	...	4

¹Represents establishments reporting less than \$500 for wages and salaries.

(For explanation of column captions, see INTRODUCTION)

Item	Dimension limestone industry						Dimension granite industry						
	United States, total	By geographic division and State					United States, total	By geographic division and State					
		Middle Atlantic (Pennsylvania)	North Central			South		New England	Middle Atlantic	North Central	South		West
			Total	Indiana	Wisconsin						Total	Georgia	
Aggregate horsepower per production worker...	37	30	34	28	20	69	33	47	48	33	25	28	73
Aggregate horsepower (prime movers and electric motors driven by purchased energy), total.....	17,428	1,594	12,742	5,807	2,236	3,092	30,129	8,137	1,744	6,857	11,641	9,816	1,750
Loading equipment.....	8,613	719	6,662	3,695	790	1,232	12,886	4,398	985	3,488	3,640	2,603	375
Transportation equipment:													
Highway type.....	4,702	575	3,367	300	1,120	760	4,861	1,693	579	970	1,519	1,334	100
Other.....	594	...	444	300	80	150	...	...	...	...	...	...	...
All other equipment.....	3,519	300	2,269	1,512	246	950	12,382	2,046	180	2,399	6,482	5,879	1,275
Prime movers (horsepower), total.....	12,812	1,394	8,978	2,450	2,025	2,440	17,217	5,190	1,744	2,411	7,142	5,963	730
By type of equipment:													
Loading equipment.....	5,861	719	3,912	1,245	610	1,230	6,851	3,053	985	980	1,553	1,088	280
Transportation equipment:													
Highway type.....	4,702	575	3,367	300	1,120	760	4,861	1,693	579	970	1,519	1,334	100
Other.....	594	...	444	300	80	150	...	...	...	...	...	...	...
All other equipment.....	1,655	100	1,255	605	215	300	5,505	444	180	461	4,070	3,541	350
By use:													
Driving generators.....	...	...	...	...	...	...	...	...	...	...	...	...	...
Not driving generators.....	12,812	1,394	8,978	2,450	2,025	2,440	17,217	5,190	1,744	2,411	7,142	5,963	730
Electric motors (horsepower), total.....	4,616	200	3,764	3,357	211	652	12,912	2,947	...	4,446	4,499	3,853	1,020
By type of equipment:													
Loading equipment.....	2,752	...	2,750	2,450	180	2	6,035	1,345	...	2,508	2,087	1,515	95
Transportation equipment.....	...	...	...	...	...	...	...	...	...	...	...	...	...
All other equipment.....	1,864	200	1,014	907	31	650	6,877	1,602	...	1,938	2,412	2,338	925
By source of energy:													
Driven by purchased energy.....	4,616	200	3,764	3,357	211	652	12,912	2,947	...	4,446	4,499	3,853	1,020
Driven by energy generated and used at same establishment.....	...	...	...	...	...	...	...	...	...	...	...	...	...
		Dimension marble industry (United States)	Dimension sandstone industry					Dimension trap rock and Dimension stone, n.e.c., industries					
		United States, total	By geographic division and State					United States, total		By geographic division and State			
			East			South and West				By geographic division and State			
			Total	Pennsylvania	Ohio	Indiana	Total	Arkansas	North-east	South	North Central and West		
Aggregate horsepower per production worker...	21	30	55	56	58	35	20	16	43	43	41	44	
Aggregate horsepower (prime movers and electric motors driven by purchased energy), total.....	12,714	27,374	12,084	5,697	1,637	1,778	15,290	912	6,105	1,558	1,970	2,577	
Loading equipment.....	2,594	7,373	3,973	1,951	1,095	325	3,400	30	2,226	805	620	801	
Transportation equipment:													
Highway type.....	1,315	12,109	3,946	2,544	75	660	8,163	420	3,034	745	816	1,473	
Other.....	480	1,498	145	30	...	...	1,353	240	...	...	...	...
All other equipment.....	8,325	6,394	4,020	1,172	467	793	2,374	222	845	8	534	303	
Prime movers (horsepower), total.....	6,851	26,007	11,277	5,507	1,365	1,503	14,730	890	5,834	1,550	1,916	2,368	
By type of equipment:													
Loading equipment.....	411	7,077	3,677	1,951	855	269	3,400	30	2,020	805	620	595	
Transportation equipment:													
Highway type.....	1,315	12,109	3,946	2,544	75	660	8,163	420	3,034	745	816	1,473	
Other.....	...	1,314	145	30	...	...	1,169	240	...	...	...	...
All other equipment.....	5,125	5,507	3,509	982	435	574	1,998	200	780	...	480	300	
By use:													
Driving generators.....	5,000	...	...	...	...	...	...	...	...	...	...	...
Not driving generators.....	1,851	26,007	11,277	5,507	1,365	1,503	14,730	890	5,834	1,550	1,916	2,368	
Electric motors (horsepower), total.....	10,713	1,367	807	190	272	275	560	22	271	8	54	209	
By type of equipment:													
Loading equipment.....	3,033	296	296	...	240	56	...	...	206	...	...	206	
Transportation equipment.....	480	184	...	...	...	...	184	...	...	...	...	...
All other equipment.....	7,200	887	511	190	32	219	376	22	65	8	54	3	
By source of energy:													
Driven by purchased energy.....	5,863	1,367	807	190	272	275	560	22	271	8	54	209	
Driven by energy generated and used at same establishment.....	4,850	...	...	...	...	...	...	...	...	...	...	...

Table 11.—NUMBER OF POWER LOADING MACHINES AT DIMENSION STONE QUARRIES IN

Type of loading equipment		Dimension limestone quarries									
		All quarries		Quarries without dressing plants ¹							
				1954	1939	United States, total	New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central
1	Surface loading equipment, total.....	401	154	129	4	10	75	13	5	12	10
	By kind of power used:										
2	Steam.....	12	24	1	...	...	1	...	...	...	...
3	Electric and Diesel-electric.....	253	89	55	1	...	45	3	...	3	3
4	Diesel.....	43	41	26	...	4	8	5	2	7	...
5	Gasoline and other.....	93		47	3	6	21	5	3	2	7
6	Power shovels, total.....	55	39	36	2	4	6	10	3	7	4
	By kind of power used:										
7	Steam.....	...	6	...	...	...	...	...	...	...	...
8	Electric and Diesel-electric.....	4	3	3	...	...	1	2	...	...	...
9	Diesel.....	27	30	18	...	3	2	5	1	7	...
10	Gasoline and other.....	24		15	2	1	3	3	2	...	4
	By dipper or bucket capacity (cubic yards):										
11	Less than 3.....	47	36	28	2	4	5	9	3	1	4
12	3-5 inclusive.....	8	2	8	...	...	1	1	...	6	...
13	6-12 inclusive ⁴.....	...	1	...	...	...	...	...	...	...	...
14	Dragline excavators, total.....	6	1	1	...	...	...	...	1	...	...
	By kind of power used:										
15	Electric and Diesel-electric.....	...	...	...	...	...	...	...	...	...	...
16	Diesel.....	2	1	1	...	...	...	...	1	...	...
17	Gasoline and other.....	4		...	...	...	...	...	...	...	...
	By dipper or bucket capacity (cubic yards):										
18	Less than 3.....	3	1	1	...	...	...	...	1	...	...
19	3-5 inclusive.....	3	...	...	...	...	...	...	...	...	...
20	More than 12.....	...	...	...	...	...	...	...	...	...	...
21	Scraper loaders, total.....	15	1	8	1	...	5	1	1	...	...
	By kind of power used:										
22	Electric and Diesel-electric.....	1	...	1	...	...	...	1	...	...	...
23	Diesel.....	4	1	1	...	...	1	...	...	...	...
24	Gasoline and other.....	10		6	1	...	4	...	1	...	...
	By rated horsepower:										
25	Less than 10.....	4	...	...	...	...	...	...	...	...	...
26	10-25 inclusive.....	1	...	1	...	...	...	...	1	...	...
27	26-100 inclusive.....	8	1	5	1	...	3	1	...	...	...
28	More than 100.....	2	...	2	...	...	2	...	...	...	...
29	Clamshell and orange peel loaders, total.....	...	1	...	...	...	...	...	...	...	...
	By kind of power used:										
30	Electric and Diesel-electric.....	...	...	...	...	...	...	...	...	...	...
31	Gasoline and other ⁵.....	...	1	...	...	...	...	...	...	...	...
32	Cranes and hoists, total.....	287	110	71	1	5	53	2	...	4	6
	By kind of power used:										
33	Steam.....	12	18	1	...	...	1	...	...	...	...
34	Electric and Diesel-electric.....	246	85	51	1	...	44	...	...	3	3
35	Diesel.....	4	7	3	...	1	2	...	...	...	...
36	Gasoline and other.....	25		16	...	4	6	2	...	1	3
37	All other types of equipment, total.....	38	2	13	...	1	11	...	...	1	...
	By kind of power used:										
38	Steam.....	...	...	...	...	...	...	...	...	...	...
39	Electric and Diesel-electric.....	2	1	...	...	...	...	...	...	...	...
40	Diesel.....	6	1	3	...	...	3	...	...	...	...
41	Gasoline and other.....	30		10	...	1	8	...	...	1	...

See footnotes at end of table.

THE UNITED STATES, 1954 AND 1939, AND BY GEOGRAPHIC DIVISIONS, 1954

Dimension limestone quarries--Continued						Dimension granite quarries					
Quarries with dressing plants						All quarries		Quarries without dressing plants			
United States, total	East North Central	West North Central	East South Central	West South Central	Pacific	1954	1939	United States, total	New England	Middle Atlantic	
272	211	25	13	22	1	375	332	170	58	12	1
11	...	...	11	...	...	39	86	12	3	...	2
198	171	7	...	20	...	186	144	78	18	...	3
17	9	7	1	...	...	44	...	17	6	2	4
46	31	11	1	2	1	106	102	63	31	10	5
19	9	9	1	...	...	19	17	10	4	2	6
...	...	...	...	...	...	1	11	...	...	...	7
1	...	1	...	...	...	...	1	...	...	...	8
9	4	5	...	...	...	7	5	3	...	1	9
9	5	3	1	...	...	11	...	7	4	1	10
19	9	9	1	...	...	19	17	10	4	2	11
...	...	...	...	...	...	...	...	...	...	...	12
...	...	...	...	...	...	...	...	...	...	...	13
5	4	1	...	...	...	7	1	7	7	...	14
...	...	...	...	...	...	...	...	...	...	...	15
1	1	...	...	...	...	...	...	...	...	...	16
4	3	1	...	...	...	7	1	7	7	...	17
2	1	1	...	...	...	1	1	1	1	...	18
3	3	...	...	...	...	6	...	6	6	...	19
...	...	...	...	...	...	...	...	...	...	...	20
7	5	2	...	...	...	7	1	2	2	...	21
...	...	...	...	...	...	1	1	...	...	...	22
3	2	1	...	...	...	3	...	1	1	...	23
4	3	1	...	...	...	3	...	1	1	...	24
4	4	...	...	...	...	4	...	1	1	...	25
...	...	...	...	...	...	...	1	...	...	...	26
3	1	2	...	...	...	3	...	1	1	...	27
...	...	...	...	...	...	...	...	...	...	...	28
...	...	...	...	...	...	2	2	2	2	...	29
...	...	...	...	...	...	...	2	...	...	...	30
...	...	...	...	...	...	2	...	2	2	...	31
216	171	12	12	20	1	313	310	129	34	9	32
11	...	...	11	...	...	38	74	12	3	...	33
195	171	6	...	18	...	177	141	70	15	...	34
1	...	...	1	...	...	26	...	10	4	1	35
9	...	6	...	2	1	72	95	37	12	8	36
25	22	1	...	2	...	27	1	20	9	1	37
...	...	...	...	...	...	...	...	...	...	...	38
2	...	...	...	2	...	8	...	8	3	...	39
3	2	1	...	...	...	8	1	3	1	...	40
20	20	...	...	...	...	11	...	9	5	1	41

Table 11.—NUMBER OF POWER LOADING MACHINES AT DIMENSION STONE QUARRIES IN THE

Type of loading equipment	Dimension granite quarries—Continued							
	Quarries without dressing plants—Continued						Quarries with dressing plants	
	East North Central	West North Central	South Atlantic	West South Central	Mountain	Pacific	United States, total	New England
1 Surface loading equipment, total.....	17	24	50	1	2	6	205	131
2 By kind of power used:								
3 Steam.....	4	4	...	...	...	1	27	20
4 Electric and Diesel-electric.....	9	15	32	...	2	2	108	72
5 Diesel.....	...	3	6	...	...	...	27	15
6 Gasoline and other.....	4	2	12	1	...	3	43	24
7 Power shovels, total.....	...	2	2	...	...	...	9	7
8 By kind of power used:								
9 Steam.....	...	...	...	...	...	...	1	1
10 Electric and Diesel-electric.....	...	...	...	...	...	...	...	...
11 Diesel.....	...	1	1	...	...	...	4	2
12 Gasoline and other.....	...	1	1	...	...	...	4	4
13 By dipper or bucket capacity (cubic yards):								
14 Less than 3.....	...	2	2	...	...	...	9	7
15 3-5 inclusive.....	...	...	...	...	...	...	...	...
16 6-12 inclusive.....	...	...	...	...	...	...	...	...
17 Dragline excavators, total.....	...	...	...	...	...	...	...	...
18 By kind of power used:								
19 Electric and Diesel-electric.....	...	...	...	...	...	...	...	...
20 Diesel.....	...	...	...	...	...	...	...	...
21 Gasoline and other.....	...	...	...	...	...	...	...	...
22 By dipper or bucket capacity (cubic yards):								
23 Less than 3.....	...	...	...	...	...	...	...	...
24 3-5 inclusive.....	...	...	...	...	...	...	...	...
25 More than 12.....	...	...	...	...	...	...	...	...
26 Scraper loaders, total.....	...	...	...	...	...	...	5	4
27 By kind of power used:								
28 Electric and Diesel-electric.....	...	...	...	...	...	...	1	1
29 Diesel.....	...	...	...	...	...	...	2	1
30 Gasoline and other.....	...	...	...	...	...	...	2	2
31 By rated horsepower:								
32 Less than 10.....	...	...	...	...	...	...	3	3
33 10-25 inclusive.....	...	...	...	...	...	...	...	...
34 26-100 inclusive.....	...	...	...	...	...	...	2	1
35 More than 100.....	...	...	...	...	...	...	...	...
36 Clemshell and orange peel loaders, total.....	...	...	...	...	...	...	...	...
37 By kind of power used:								
38 Electric and Diesel-electric.....	...	...	...	...	...	...	...	...
39 Gasoline and other ⁵.....	...	...	...	...	...	...	...	...
40 Cranes and hoists, total.....	16	22	39	1	2	6	184	116
41 By kind of power used:								
42 Steam.....	4	4	...	...	...	1	26	19
43 Electric and Diesel-electric.....	8	15	28	...	2	2	107	71
44 Diesel.....	...	2	3	...	...	...	16	8
45 Gasoline and other.....	4	1	8	1	...	3	35	18
46 All other types of equipment.....	1	...	9	...	...	...	7	4
47 By kind of power used:								
48 Steam.....	...	...	...	...	...	...	...	...
49 Electric and Diesel-electric.....	1	...	4	...	...	...	...	...
50 Diesel.....	...	...	2	...	...	...	5	4
51 Gasoline and other.....	...	...	3	...	...	...	2	...

See footnotes at end of table.

UNITED STATES, 1954 AND 1939, AND BY GEOGRAPHIC DIVISIONS, 1954—Continued

Dimension granite quarries—Continued						Dimension slate (all quarries with dressing plants)					
Quarries with dressing plants—Continued						United States, total		New England	Middle Atlantic	South Atlantic	Pacific
Middle Atlantic	East North Central	West North Central	South	West South Central	Pacific	1954	1939 ²				
7	7	19	29	5	7	107	63	34	68	4	1
1	6	...	...	5	28	1	4	...	2
2	3	19	8	3	1	61	28	17	43	...	3
1	3	...	5	2	1	13	7	3	7	3	4
3	1	...	10	...	5	28		13	14	1	5
1	1	...	...	18	18	7	7	4	6
...	10	...	...	...	7
...	1	...	...	...	8
1	1	...	...	5	7	...	2	3	9
...	13		7	5	1	10
1	1	...	...	18	18	7	7	4	11
...	12
...	13
...	1	3	1	...	...	14
...	3	...	...	...	15
...	1	...	1	...	...	16
...	17
...	1	1	1	...	...	18
...	2	...	...	...	19
...	20
...	1	...	...	...	...	...	21
...	22
...	1	...	...	...	...	...	23
...	24
...	25
...	26
...	1	...	...	...	...	...	...	27
...	28
...	29
...	30
...	31
6	7	19	26	5	5	82	19	24	58	...	32
1	6	...	...	5	11	1	4	...	33
2	3	19	8	3	1	60	8	17	43	...	34
...	3	...	3	2	...	2	...	...	2	...	35
3	1	...	9	...	4	15	...	6	9	...	36
...	2	...	1	6	23	2	3	...	37
...	7	...	...	...	38
...	1	16	...	...	...	39
...	1	...	...	5	...	2	3	...	40
...	1	...	1	...	...	...	...	...	41

Table 11.—NUMBER OF POWER LOADING MACHINES AT DIMENSION STONE QUARRIES IN THE

Type of loading equipment		Dimension marble quarries						
		All quarries		Quarries without dressing plants ³				
		1954	1939	United States, total	New England	East North Central	West North Central	South Atlantic
1	Surface loading equipment, total.....	100	90	58	7	1	4	1
	By kind of power used:							
2	Steam.....	3	47	2	...	...	...	...
3	Electric and Diesel-electric.....	59	31	36	7	...	3	1
4	Diesel.....	18	12	3	...	...	...	...
5	Gasoline and other.....	20	17	17	...	1	1	...
6	Power shovels, total.....	7	2	1	...	...	...	...
	By kind of power used:							
7	Steam.....	...	...	...	...	...	...	...
8	Electric and Diesel-electric.....	1	2	...	...	...	...	...
9	Diesel.....	4	...	1	...	...	...	...
10	Gasoline and other.....	2	...	...	...	...	...	...
	By dipper or bucket capacity (cubic yards):							
11	Less than 3.....	7	2	1	...	...	...	...
12	3-5 inclusive.....	...	...	...	...	...	...	...
13	6-12 inclusive.....	...	...	...	...	...	...	...
14	Dragline excavators, total.....	2	1	...	...	...	...	...
	By kind of power used:							
15	Electric and Diesel-electric.....	...	...	...	...	...	...	...
16	Diesel.....	2	1	...	...	...	...	...
17	Gasoline and other.....	...	...	...	...	...	...	...
	By dipper or bucket capacity (cubic yards):							
18	Less than 3.....	2	1	...	...	...	...	...
19	3-5 inclusive.....	...	...	...	...	...	...	...
20	More than 12.....	...	...	...	...	...	...	...
21	Scraper loaders, total.....	3	...	...	...	...	...	...
	By kind of power used:							
22	Electric and Diesel-electric.....	...	...	...	...	...	...	...
23	Diesel.....	2	...	...	...	...	...	...
24	Gasoline and other.....	1	...	...	...	...	...	...
	By rated horsepower:							
25	Less than 10.....	1	...	...	...	...	...	...
26	10-25 inclusive.....	...	...	...	...	...	...	...
27	26-100 inclusive.....	2	...	...	...	...	...	...
28	More than 100.....	...	...	...	...	...	...	...
29	Clamshell and orange peel loaders, total.....	2	...	...	...	...	...	...
	By kind of power used:							
30	Electric and Diesel-electric.....	2	...	...	...	...	...	...
31	Gasoline and other ⁵.....	...	...	...	...	...	...	...
32	Cranes and hoists, total.....	81	84	52	7	1	4	1
	By kind of power used:							
33	Steam.....	1	47	...	...	...	...	...
34	Electric and Diesel-electric.....	56	27	36	7	...	3	1
35	Diesel.....	8	10	...	...	...	...	...
36	Gasoline and other.....	16	16	16	...	1	1	...
37	All other types of equipment.....	5	3	5	...	...	...	...
	By kind of power used:							
38	Steam.....	2	...	2	...	...	...	...
39	Electric and Diesel-electric.....	...	2	...	...	...	...	...
40	Diesel.....	2	1	2	...	...	...	...
41	Gasoline and other.....	1	...	1	...	...	...	...

See footnotes at end of table.

UNITED STATES, 1954 AND 1939, AND BY GEOGRAPHIC DIVISIONS, 1954—Continued

Dimension marble quarries—Continued						Dimension sandstone								
Quarries without dressing plants ³ —Continued		Quarries with dressing plants				All quarries		Quarries without dressing plants						
West South Central	Mountain	United States, total	West North Central	South Atlantic	East South Central	1954	1939	United States, total	Middle Atlantic	East North Central	West North Central	South Atlantic		
1	1	42	12	12	18	174	97	103	33	19	1	9	1	
...	...	1	...	...	1	11	41	4	...	...	...	...	2
...	...	23	6	7	10	50	35	7	2	4	...	...	3
...	1	15	3	5	7	38	}	21	{	30	12	6	3	4
1	...	3	3	75				62	19	9	1	6	5
...	1	6	5	...	1	39	20	29	15	2	...	7	6	
...	2	16	...	...	...	...	...	7	
...	...	1	1	...	...	...	...	...	...	...	...	...	8
...	1	3	2	...	1	11	}	4	{	9	6	1	2	9
...	...	2	2	26				20	9	1	...	5
...	1	6	5	...	1	36	17	28	14	2	...	7	11	
...	2	2	1	1	...	...	...	12	
...	1	1	...	...	...	...	...	13	
...	...	2	...	1	1	2	2	2	1	...	...	...	14
...	15	
...	...	2	...	1	1	2	}	2	{	2	1	16
...
...	...	2	...	1	1	2	2	2	1	...	...	...	18
...	19	
...	20	
...	...	3	2	...	1	8	...	7	1	...	...	...	21
...	1	...	1	1	...	...	...	22	
...	...	2	1	...	1	4	...	3	...	...	...	...	23
...	...	1	1	...	...	3	...	3	...	...	...	...	24
...	...	1	...	...	1	3	...	3	1	...	...	...	25
...	1	...	...	...	...	...	...	26	
...	...	2	2	...	...	2	...	2	...	...	...	...	27
...	2	...	2	...	...	...	...	28	
...	...	2	...	...	2	1	2	1	1	...	...	...	29
...	...	2	...	...	2	...	...	...	...	...	...	...	30
...	1	...	1	1	...	...	...	31	
...	...	29	5	11	13	86	73	35	8	14	...	1	32	
...	...	1	...	...	1	9	23	4	...	...	...	...	33
...	...	20	5	7	8	48	35	6	1	4	...	...	34
...	...	8	...	4	4	3	}	15	{	3	1	2	...	35
...	26				22	6	8	...	1	36
1	38	...	29	7	3	1	1	37	
...	38	
...	1	...	...	...	...	...	...	39	
...	18	...	13	4	3	...	1	40	
1	19	...	16	3	...	1	...	41	

Table 11.—NUMBER OF POWER LOADING MACHINES AT DIMENSION STONE QUARRIES IN THE

Type of loading equipment		Dimension sandstone—Continued							
		Quarries without dressing plants—Continued				Quarries with dressing plants			
		East South Central	West South Central	Mountain	Pacific	United States, total	New England	Middle Atlantic	East North Central
1	Surface loading equipment, total.....	11	4	18	8	71	1	17	48
	By kind of power used:								
2	Steam.....	...	...	...	4	7	...	...	7
3	Electric and Diesel-electric.....	...	...	1	...	43	1	5	37
4	Diesel.....	6	1	2	...	8	...	6	...
5	Gasoline and other.....	5	3	15	4	13	...	6	4
6	Power shovels, total.....	1	...	2	2	10	...	7	3
	By kind of power used:								
7	Steam.....	...	...	...	...	2	...	...	2
8	Electric and Diesel-electric.....	...	...	...	...	...	...	...	...
9	Diesel.....	...	...	...	...	2	...	2	...
10	Gasoline and other.....	1	...	2	2	6	...	5	1
	By dipper or bucket capacity (cubic yards):								
11	Less than 3.....	1	...	2	2	8	...	6	2
12	3-5 inclusive.....	...	...	...	...	1	...	1	...
13	6-12 inclusive ⁴.....	...	...	...	...	1	...	...	1
14	Dragline excavators, total.....	...	1	...	...	...	...	...	...
	By kind of power used:								
15	Electric and Diesel-electric.....	...	...	...	...	...	...	...	...
16	Diesel.....	...	1	...	...	...	...	...	...
17	Gasoline and other.....	...	...	...	...	...	...	...	...
	By dipper or bucket capacity (cubic yards):								
18	Less than 3.....	...	1	...	...	...	...	...	...
19	3-5 inclusive.....	...	...	...	...	...	...	...	...
20	More than 12.....	...	...	...	...	...	...	...	...
21	Scraper loaders, total.....	2	...	3	1	1	...	1	...
	By kind of power used:								
22	Electric and Diesel-electric.....	...	...	...	...	...	...	...	...
23	Diesel.....	2	...	1	...	1	...	1	...
24	Gasoline and other.....	...	...	2	1	...	...	...	...
	By rated horsepower:								
25	Less than 10.....	...	...	1	1	...	...	...	...
26	10-25 inclusive.....	...	...	...	...	1	...	1	...
27	26-100 inclusive.....	...	...	2	...	...	...	...	...
28	More than 100.....	2	...	...	...	...	...	...	...
29	Clamshell and orange peel loaders, total.....	...	...	...	...	...	...	...	...
	By kind of power used:								
30	Electric and Diesel-electric.....	...	...	...	...	...	...	...	...
31	Gasoline and other ⁵.....	...	...	...	...	...	...	...	...
32	Cranes and hoists, total.....	3	...	4	5	51	1	5	44
	By kind of power used:								
33	Steam.....	...	...	...	4	5	...	...	5
34	Electric and Diesel-electric.....	...	...	1	...	42	1	5	36
35	Diesel.....	...	...	...	...	...	...	...	...
36	Gasoline and other.....	3	...	3	1	4	...	...	3
37	All other types of equipment.....	5	3	9	...	9	...	4	1
	By kind of power used:								
38	Steam.....	...	...	...	...	...	...	...	...
39	Electric and Diesel-electric.....	...	...	...	...	1	...	...	1
40	Diesel.....	4	...	1	...	5	...	3	...
41	Gasoline and other.....	1	3	8	...	3	...	1	...

See footnotes at end of table.

DIMENSION STONE

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UNITED STATES, 1954 AND 1939, AND BY GEOGRAPHIC DIVISIONS, 1954—Continued

Dimension sandstone—Continued		Dimension trap rock and Dimension stone, n.e.c.											
Quarries with dressing plants—Continued		All quarries		Quarries without dressing plants									
East South Central	Mountain	1954	1939	United States, total	New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific
1	4	53	3	36	2	7	4	3	2	2	4	5	7
...	...	2	...	1	...	1	...	...	...	...	...	...	...
...	...	11	1	6	...	...	...	...	...	...	...	3	3
1	1	10	...	7	...	2	1	2	...	...	1	...	1
...	3	30	2	22	2	4	3	1	2	2	3	2	3
...	...	14	...	13	...	4	...	2	2	...	...	...	5
...	...	2	...	1	...	1	...	...	...	...	...	...	7
...	...	3	...	3	...	...	...	...	...	...	...	...	3
...	...	2	...	2	...	...	...	2	...	...	...	...	8
...	...	7	...	7	...	3	...	...	2	...	...	...	9
...	10
...	...	12	...	11	...	4	...	...	2	...	...	...	5
...	...	1	...	1	...	...	...	1	...	...	...	...	12
...	...	1	...	1	...	...	...	1	...	...	...	...	13
...	...	2	...	1	...	...	...	...	...	...	...	...	1
...	14
...	...	2	...	1	...	...	...	...	...	...	...	...	15
...	16
...	17
...	...	1	...	...	...	...	...	...	...	...	...	...	18
...	19
...	...	1	...	1	...	...	...	...	...	...	...	...	20
...	...	5	...	4	...	1	1	...	...	...	...	2	21
...	...	2	...	2	...	...	...	...	...	...	...	2	22
...	...	1	...	1	...	1	...	...	...	...	...	...	23
...	...	2	...	1	...	...	1	...	...	...	...	...	24
...	...	2	...	1	...	...	1	...	...	...	...	...	25
...	26
...	...	3	...	3	...	1	...	...	...	...	...	2	27
...	28
...	29
...	30
...	31
...	1	21	...	10	2	1	1	...	...	1	3	1	1
...	32
...	...	6	...	1	...	...	...	...	...	...	...	1	33
...	...	2	...	1	...	...	...	...	...	...	1	...	34
...	1	13	...	8	2	1	1	...	...	1	2	...	35
...	36
1	3	11	3	8	...	1	2	1	...	1	1	2	...
...	37
...	38
1	1	3	1	2	...	1	1	...	...	...	...	...	39
...	2	8	2	6	...	...	1	...	...	1	1	2	...

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 11.—NUMBER OF POWER LOADING MACHINES AT DIMENSION STONE QUARRIES IN THE UNITED STATES, 1954 AND 1939,
AND BY GEOGRAPHIC DIVISIONS, 1954—Continued

Type of loading equipment	Dimension trap rock and Dimension stone, n.e.c.—Continued					
	Quarries with dressing plants					
	United States, total	Middle Atlantic	East North Central	South Atlantic	West South Central	Pacific
Surface loading equipment, total.....	17	4	1	10	1	1
By kind of power used:						
Steam.....	1	1	...	...	...	...
Electric and Diesel-electric.....	5	...	...	5	...	...
Diesel.....	3	1	...	...	1	1
Gasoline and other.....	8	2	1	5	...	...
Power shovels, total.....	1	1	...	...	...	...
By kind of power used:						
Steam.....	1	1	...	...	...	...
Electric and Diesel-electric.....	...	...	...	...	...	...
Diesel.....	...	...	...	...	...	...
Gasoline and other.....	...	...	...	...	...	...
By dipper or bucket capacity (cubic yards):						
Less than 3.....	1	1	...	...	...	...
3-5 inclusive.....	...	...	...	...	...	...
6-12 inclusive.....	...	...	...	...	...	...
Dragline excavators, total.....	1	...	...	...	...	1
By kind of power used:						
Electric and Diesel-electric.....	...	...	...	...	...	...
Diesel.....	1	...	...	...	...	1
Gasoline and other.....	...	...	...	...	...	...
By dipper or bucket capacity (cubic yards):						
Less than 3.....	1	...	...	...	...	1
3-5 inclusive.....	...	...	...	...	...	...
More than 12.....	...	...	...	...	...	...
Scraper loaders, total.....	1	...	1	...	...	...
By kind of power used:						
Electric and Diesel-electric.....	...	...	...	...	...	...
Diesel.....	...	...	...	...	...	...
Gasoline and other.....	1	...	1	...	...	...
By rated horsepower:						
Less than 10.....	1	...	1	...	...	...
10-25 inclusive.....	...	...	...	...	...	...
26-100 inclusive.....	...	...	...	...	...	...
More than 100.....	...	...	...	...	...	...
Clemshell and orange peel loaders, total.....	...	...	...	...	...	...
By kind of power used:						
Electric and Diesel-electric.....	...	...	...	...	...	...
Gasoline and other.....	...	...	...	...	...	...
Cranes and hoists, total.....	11	...	...	10	1	...
By kind of power used:						
Steam.....	...	...	...	...	...	...
Electric and Diesel-electric.....	5	...	...	5	...	...
Diesel.....	1	...	...	...	1	...
Gasoline and other.....	5	...	...	5	...	...
All other types of equipment.....	3	3	...	...	...	...
By kind of power used:						
Steam.....	...	...	...	...	...	...
Electric and Diesel-electric.....	...	...	...	...	...	...
Diesel.....	1	1	...	...	...	...
Gasoline and other.....	2	2	...	...	...	...

¹In addition to the surface loading equipment shown for these quarries, there were reported at underground operations located in the West North Central division the following types of underground loading equipment: 2 shovel loaders requiring a minimum working height of 8 feet or less, both operated by Diesel power; and 1 shovel loader requiring a minimum working height of more than 8 feet, operated by electric or Diesel-electric power.

²In addition to the surface loading equipment shown for these quarries, there was reported at underground quarries one electric scraper loader with 26-100 horsepower rating of hoist.

³In addition to the surface loading equipment shown for these quarries, there were reported at underground operations located in the New England division 8 hoists operated by electric or Diesel-electric power.

⁴For 1939, reported as "More than 5."

⁵For 1939, reported as "Other" than steam or electric.

Table 12.—MATERIALS, SUPPLIES, FUELS, AND ELECTRIC ENERGY USED AT DIMENSION STONE QUARRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954

(For explanation of line captions, see INTRODUCTION)

Item	United States						Middle Atlantic (Pennsylvania) (quarries only)					
	Total		Quarries only		Quarries with dressing plants		Quantity	Cost (\$1,000)				
	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)						
DIMENSION LIMESTONE QUARRIES												
Rough blocks used to produce dressed stone, total.....1,000 short tons..	570	xxx	...	...	570	xxx	...	...		
Quarried and dressed at same establishment.....do....	562	xxx	...	...	562	xxx	...	...		
Received from other establishments....do....	8	75	...	...	8	75	...	...		
Supplies used.....	xxx	2,686	xxx	586	xxx	2,100	xxx	34				
Fuels used, total.....million kwh equivalent..	201	335	33	87	168	248	7	25				
Bituminous coal.....1,000 short tons..	16	84	1	6	15	78	...	...		
Distillate fuel oil.....1,000 barrels..	16	82	6	29	10	53	3	17				
Natural gas.....million cu.ft..	31	5	7	3	24	2	...	...		
Other fuels.....	xxx	164	xxx	49	xxx	115	xxx	8				
Electric energy purchased.....million kwh..	22	417	1	54	21	363	(¹)	6				
Electric energy generated and used.....do....	1	xxx	...	xxx	1	xxx	...	...		
North Central					Indiana							
Total		Quarries only		Quarries with dressing plants		Total		Quarries only		Quarries with dressing plants		
Quan- tity	Cost (\$1,000)	Quan- tity	Cost (\$1,000)	Quan- tity	Cost (\$1,000)	Quan- tity	Cost (\$1,000)	Quan- tity	Cost (\$1,000)	Quan- tity	Cost (\$1,000)	
Rough blocks used to produce dressed stone, total.....1,000 short tons..	501	xxx	501	xxx	427	xxx	427	xxx
Quarried and dressed at same establishment.....do....	493	xxx	493	xxx	427 { 1,534 {	xxx	427 { 1,378 {	xxx
Received from other establishments....do....	8	75	8	75		xxx		xxx
Supplies used.....	xxx	2,378	xxx	525	xxx	1,853	xxx	xxx	156	xxx	xxx	40
Fuels used, total.....million kwh equivalent..	184	269	22	49	162	220	133	143	12	17	121	126
Bituminous coal.....1,000 short tons..	16	81	1	5	15	76	15	79	1	5	14	74
Distillate fuel oil.....1,000 barrels..	13	64	3	11	10	53	2	13	(¹)	1	2	12
Natural gas.....million cu.ft..	31	5	7	3	24	2	7	3	7	3
Other fuels.....	xxx	119	xxx	30	xxx	89	xxx	48	xxx	8	xxx	40
Electric energy purchased.....million kwh..	18	357	1	44	17	313	17	299	1	31	16	268
Electric energy generated and used.....do....	1	xxx	...	xxx	1	xxx
Wisconsin									Minnesota			
Total		Quarries only		Quarries with dressing plants		Total		Quarries only		Quarries with dressing plants		
Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	
Rough blocks used to produce dressed stone, total.....1,000 short tons..	36	xxx	...	...	...	36	xxx	20	xxx	...	...
Quarried and dressed at same establishment.....do....	36 { 654 {	xxx	...	...	...	36 { 321 {	xxx	20	xxx	...	...
Received from other establishments....do....		...	...	...	...		...	...	150		
Supplies used.....	xxx	xxx	333	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	
Fuels used, total.....million kwh equivalent..	15	54	2	8	13	46	22	30	...	...	...
Bituminous coal.....1,000 short tons..	...	...	...	...	...	...	1	2	...	...	...
Distillate fuel oil.....1,000 barrels..	5	29	...	...	...	29	...	...	...	...	...
Natural gas.....million cu.ft..	...	...	...	...	...	...	24	2	...	...	...
Other fuels.....	xxx	25	xxx	8	xxx	17	xxx	26	...	...	...
Electric energy purchased.....million kwh..	(¹)	18	(¹)	11	(¹)	7	1	35	...	...	...
Electric energy generated and used.....do....	...	...	...	...	...	...	...	...	...	...	...

See footnotes at end of table.

Table 12.—MATERIALS, SUPPLIES, FUELS, AND ELECTRIC ENERGY USED AT DIMENSION STONE QUARRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

(For explanation of line captions, see INTRODUCTION)

Item	Kansas				South				West			
	Quantity		Cost		Quantity		Cost		Quantity		Cost	
		(\$1,000)				(\$1,000)				(\$1,000)		
DIMENSION LIMESTONE QUARRIES—Continued												
Rough blocks used to produce dressed stone, total.....1,000 short tons..	17	xxx			65	...			4	...		
Quarried and dressed at same establishment.....do....	17	xxx	{	87	65	xxx	{	xxx	4	xxx	{	xxx
Received from other establishments....do....					...	...			...	...
Supplies used.....	xxx				xxx	268			xxx			6
Fuels used, total.....million kwh equivalent..	7	18			9	38			1			3
Bituminous coal.....1,000 short tons..	...	...			(1)	3			...			...
Distillate fuel oil.....1,000 barrels..	3	11			(1)	1			...			...
Natural gas.....million cu.ft..	...	...			...	...			...			...
Other fuels.....	xxx	7			xxx	34			xxx			3
Electric energy purchased.....million kwh..	(1)	3			4	54			...			...
Electric energy generated and used.....do....	1	xxx			...	...			...			...
United States						New England						
Total		Quarries only		Quarries with dressing plants		Total		Quarries only		Quarries with dressing plants		
Quan- tity	Cost (\$1,000)	Quan- tity	Cost (\$1,000)	Quan- tity	Cost (\$1,000)	Quan- tity	Cost (\$1,000)	Quan- tity	Cost (\$1,000)	Quan- tity	Cost (\$1,000)	
DIMENSION GRANITE QUARRIES												
Rough blocks used to produce dressed stone, total.....1,000 short tons..	459	xxx	...	...	459	xxx	243	xxx	...	...	243	xxx
Quarried and dressed at same establishment.....do....	433	xxx	...	...	433	xxx	} 243	{ xxx	{ ...	{ ...	} 243	{ xxx
Received from other establishments....do....	26	765	26	765							1,877	xxx	121	xxx	1,756
Supplies used.....	xxx	5,184	xxx	693	xxx	4,491	xxx	1,877	xxx	121	xxx	1,756
Fuels used, total.....million kwh equivalent..	155	372	23	96	132	276	80	200	4	24	76	176
Bituminous coal.....1,000 short tons..	7	75	(1)	13	7	62	4	49	(1)	7	4	42
Distillate fuel oil.....1,000 barrels..	34	151	5	30	29	121	20	90	(1)	2	20	88
Natural gas.....million cu.ft..	26	5	9	2	17	3	...	...	...	...	...	...
Other fuels.....	xxx	141	xxx	51	xxx	90	xxx	61	xxx	15	xxx	46
Electric energy purchased.....million kwh..	64	888	12	229	52	659	16	283	3	50	13	233
Electric energy generated and used.....do....	1	xxx	...	xxx	1	xxx	1	xxx	...	xxx	1	xxx
Maine		Vermont		Massachusetts		Middle Atlantic						
Total		Quarries only		Quarries with dressing plants								
Quan- tity	Cost (\$1,000)	Quan- tity	Cost (\$1,000)	Quan- tity	Cost (\$1,000)	Quan- tity	Cost (\$1,000)	Quan- tity	Cost (\$1,000)	Quan- tity	Cost (\$1,000)	
Rough blocks used to produce dressed stone, total.....1,000 short tons..	13	xxx	10	...	211	xxx	2	xxx	...	...	2	xxx
Quarried and dressed at same establishment.....do....	} 13	{ xxx	10	xxx	} 211	{ xxx	2	xxx	...	...	2	xxx
Received from other establishments....do....												
Supplies used.....	xxx	288	xxx	504	xxx	1,019	xxx	43	xxx	22	xxx	21
Fuels used, total.....million kwh equivalent..	14	34	23	55	41	93	3	10	3	9	(1)	1
Bituminous coal.....1,000 short tons..	1	11	2	22	1	10	(1)	1	...	...	(1)	1
Distillate fuel oil.....1,000 barrels..	2	13	2	17	16	57	1	2	1	2	...	...
Natural gas.....million cu.ft..	...	...	...	...	...	...	...	...	...	...	...	...
Other fuels.....	xxx	10	xxx	16	xxx	26	xxx	7	xxx	7	xxx	...
Electric energy purchased.....million kwh..	1	25	7	129	7	102	(1)	9	(1)	1	(1)	8
Electric energy generated and used.....do....	1	xxx	...	xxx	...	...	...	xxx	...	xxx	...	xxx

See footnotes at end of table.

Table 12.—MATERIALS, SUPPLIES, FUELS, AND ELECTRIC ENERGY USED AT DIMENSION STONE QUARRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

(For explanation of line captions, see INTRODUCTION)

Item	North Central						Minnesota		South Dakota			
	Total		Quarries only		Quarries with dressing plants							
	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)		
DIMENSION GRANITE QUARRIES—Continued												
Rough blocks used to produce dressed stone, total.....1,000 short tons..	44	xxx	...	...	44	xxx	43	xxx	...	...
Quarried and dressed at same establishment.....do....	44	{ xxx 2,654	{	{	44	{ xxx 2,516	{ 43 2,309	xxx	...	...
Received from other establishments....do....												
Supplies used.....	xxx		xxx	138	xxx		xxx		xxx	220		
Fuels used, total.....million kwh equivalent..	41	69	5	24	36	45	19	35	4	17		
Bituminous coal.....1,000 short tons..	3	20	(¹)	4	3	16	1	8	(¹)	4		
Distillate fuel oil.....1,000 barrels..	8	33	2	12	6	21	6	21	2	10		
Natural gas.....million cu.ft..	...	...	...	...	...	...	...	...	...	...
Other fuels.....	xxx	16	xxx	8	xxx	8	xxx	6	xxx	3		
Electric energy purchased.....million kwh..	31	340	2	54	29	286	28	257	3	58		
Electric energy generated and used.....do....	...	xxx	...	xxx	...	xxx	...	xxx	...	xxx		
South						Georgia						
Total		Quarries only		Quarries with dressing plants		Total		Quarries only		Quarries with dressing plants		
Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	
Rough blocks used to produce dressed stone, total.....1,000 short tons..	166	xxx	166	xxx	68	xxx	68	xxx
Quarried and dressed at same establishment.....do....	166	{ xxx 1,315	{	{	166	{ xxx 927	{ 68 xxx	{ xxx 659	{ ... xxx	{	68	{ xxx 345
Received from other establishments....do....												
Supplies used.....	xxx		xxx	388	xxx		xxx		659	xxx	314	xxx
Fuels used, total.....million kwh equivalent..	29	85	11	38	18	47	22	59	11	32	11	27
Bituminous coal.....1,000 short tons..	(¹)	5	(¹)	2	(¹)	3	(¹)	2	(¹)	2
Distillate fuel oil.....1,000 barrels..	5	25	2	13	3	12	3	15	2	10	1	5
Natural gas.....million cu.ft..	26	5	9	2	17	3	22	4	9	2	13	2
Other fuels.....	xxx	50	xxx	21	xxx	29	xxx	38	xxx	18	xxx	20
Electric energy purchased.....million kwh..	17	242	7	117	10	125	9	158	6	98	3	60
Electric energy generated and used.....do....	...	xxx	...	xxx	...	xxx	...	xxx	...	xxx	...	xxx
West												
Total				Quarries only				Quarries with dressing plants				
Quantity		Cost (\$1,000)		Quantity		Cost (\$1,000)		Quantity		Cost (\$1,000)		
Rough blocks used to produce dressed stone, total.....1,000 short tons..	4	xxx	...	...	...	...	...	4	xxx	...	xxx
Quarried and dressed at same establishment.....do....	4	{ xxx 60	{ ... ...	{ ... ...	...	{ ... ...	{ ... ...	4	{ xxx xxx	{ ... xxx	xxx
Received from other establishments....do....												
Supplies used.....	xxx		60		xxx		24		xxx		xxx	
Fuels used, total.....million kwh equivalent..	2	8	(¹)	1	(¹)	1	2	2	7	...	...
Bituminous coal.....1,000 short tons..	...	...	(¹)	...	(¹)	...	...	...	...	...	...
Distillate fuel oil.....1,000 barrels..	(¹)	1	(¹)	...	(¹)	...	...	...	...	...	...
Natural gas.....million cu.ft..	...	...	...	...	...	...	...	...	...	...	...
Other fuels.....	xxx	7	xxx	...	xxx	...	xxx	...	xxx	...	xxx	
Electric energy purchased.....million kwh..	(¹)	14	(¹)	7	(¹)	7	(¹)	7	(¹)	7	...	
Electric energy generated and used.....do....	...	xxx	...	xxx	...	xxx	...	xxx	...	xxx	...	

See footnotes at end of table.

Table 12.—MATERIALS, SUPPLIES, FUELS, AND ELECTRIC ENERGY USED AT DIMENSION STONE QUARRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

(For explanation of line captions, see INTRODUCTION)

Item	United States, total		New England		Middle Atlantic		South and West																																					
	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)																																				
DIMENSION SLATE QUARRIES ²																																												
Rough blocks used to produce dressed stone, total.....1,000 short tons..	215	xxx	40	xxx	154	xxx	21	xxx																																				
Quarried and dressed at same establishment.....do....	209	xxx	40	xxx	154	xxx	21	xxx																																				
Received from other establishments.....do....	6	19																																								
Supplies used.....	xxx	908	xxx	239	xxx	645	xxx	43																																				
Fuels used, total.....million kwh equivalent..	68	125	12	45	46	65	10	15																																				
Bituminous coal.....1,000 short tons..	5	42	(¹)	3	4	33	1	6																																				
Distillate fuel oil.....1,000 barrels..	4	14	2	7	2	7																																				
Natural gas.....million cu.ft..	23	9	23	9																																				
Other fuels.....	xxx	60	xxx	35	xxx	16	xxx	9																																				
Electric energy purchased.....million kwh..	8	165	2	39	5	107	1	19																																				
Electric energy generated and used.....do....																																				
<table><tr><th colspan="6">United States</th><th colspan="2">East</th><th colspan="2">South and West</th></tr><tr><th colspan="2">Total</th><th colspan="2">Quarries only</th><th colspan="2">Quarries with dressing plants</th><th colspan="2"></th><th colspan="2"></th></tr><tr><th>Quantity</th><th>Cost (\$1,000)</th><th>Quantity</th><th>Cost (\$1,000)</th><th>Quantity</th><th>Cost (\$1,000)</th><th>Quantity</th><th>Cost (\$1,000)</th><th>Quantity</th><th>Cost (\$1,000)</th></tr></table>									United States						East		South and West		Total		Quarries only		Quarries with dressing plants						Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)						
United States						East		South and West																																				
Total		Quarries only		Quarries with dressing plants																																								
Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)																																			
DIMENSION MARBLE QUARRIES																																												
Rough blocks used to produce dressed stone, total.....1,000 short tons..	47	xxx	47	xxx	(D)	xxx	(D)	xxx																																		
Quarried and dressed at same establishment.....do....	33	xxx	33	xxx	(D)	xxx																																		
Received from other establishments.....do....	14	575	14	575	(D)	837	(D)	1,092																																		
Supplies used.....	xxx	1,354	xxx	511	xxx	843	xxx		xxx																																			
Fuels used, total.....million kwh equivalent..	16	38	3	13	13	25	1	2	15	36																																		
Bituminous coal.....1,000 short tons..	1	10	(¹)	1	1	9	1	10																																		
Distillate fuel oil.....1,000 barrels..	2	8	2	8	2	8																																		
Natural gas.....million cu.ft..																																		
Other fuels.....	xxx	20	xxx	12	xxx	8	xxx	2	xxx	18																																		
Electric energy purchased.....million kwh..	21	270	5	80	16	190	5	66	16	204																																		
Electric energy generated and used.....do....	2	...	2	2																																		
<table><tr><th colspan="6">United States</th><th colspan="6">East</th></tr><tr><th colspan="2">Total</th><th colspan="2">Quarries only</th><th colspan="2">Quarries with dressing plants</th><th colspan="2">Total</th><th colspan="2">Quarries only</th><th colspan="2">Quarries with dressing plants</th></tr><tr><th>Quantity</th><th>Cost (\$1,000)</th><th>Quantity</th><th>Cost (\$1,000)</th><th>Quantity</th><th>Cost (\$1,000)</th><th>Quantity</th><th>Cost (\$1,000)</th><th>Quantity</th><th>Cost (\$1,000)</th><th>Quantity</th><th>Cost (\$1,000)</th></tr></table>									United States						East						Total		Quarries only		Quarries with dressing plants		Total		Quarries only		Quarries with dressing plants		Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
United States						East																																						
Total		Quarries only		Quarries with dressing plants		Total		Quarries only		Quarries with dressing plants																																		
Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)																																	
DIMENSION SANDSTONE QUARRIES																																												
Rough blocks used to produce dressed stone, total.....1,000 short tons..	203	xxx	203	xxx	171	xxx	...	171	xxx																																	
Quarried and dressed at same establishment.....do....	193	193	...	171	171	...																																	
Received from other establishments.....do....	10	78	10	78																																						
Supplies used.....	xxx	1,292	xxx	631	xxx	661	xxx	803	xxx	156	xxx																																	
Fuels used, total.....million kwh equivalent..	171	282	52	161	119	121	134	165	17	49	117																																	
Bituminous coal.....1,000 short tons..	14	50	1	1	13	43	13	43	...	13	43																																	
Distillate fuel oil.....1,000 barrels..	6	37	5	23	1	14	3	20	2	8	12																																	
Natural gas.....million cu.ft..																																	
Other fuels.....	xxx	195	xxx	137	xxx	64	xxx	102	xxx	41	xxx																																	
Electric energy purchased.....million kwh..	3	95	(¹)	22	3	73	3	81	(¹)	8	3																																	
Electric energy generated and used.....do....	...	xxx	...	xxx	...	xxx	...	xxx	...	xxx	xxx																																	

See footnotes at end of table.

(For explanation of line captions, see INTRODUCTION)

xxx Not applicable.
¹Less than one-half of unit of measure specified.
²Represents quarries with dressing plants only.

²Represents quarries with dressing plants only.

Table 13.—WATER USE AT DIMENSION STONE QUARRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954

(For explanation of column captions, see INTRODUCTION)

Type of quarry, geographic division, and State	Number of production and development workers	Value added in mining (\$1,000)	Water intake (except mine water)			Water discharged (except mine water) (million gallons)
			Million gallons	Million gallons per production worker ¹	Gallons per dollar value added	
DIMENSION LIMESTONE QUARRIES						
United States, total.....	2,693	16,686	248	0.09	15	224
Quarries only.....	472	2,942	15	0.03	5	9
Quarries with dressing plants.....	2,221	13,744	233	0.10	17	215
North Central, total.....	2,293	14,826	243	0.11	16	220
Quarries only.....	372	2,484	14	0.04	6	8
Quarries with dressing plants.....	1,921	12,342	229	0.12	19	212
Indiana, total.....	1,783	11,399	228	0.13	20	214
Quarries only.....	204	1,517	14	0.07	9	8
Quarries with dressing plants.....	1,579	9,882	214	0.14	22	206
South and West.....	347	1,562	5	0.01	3	4
DIMENSION GRANITE QUARRIES						
United States, total.....	3,662	20,976	1,748	0.48	83	1,689
Quarries only.....	917	4,590	90	0.10	20	86
Quarries with dressing plants.....	2,745	16,386	1,658	0.60	101	1,603
New England, total.....	1,375	9,624	184	0.13	19	172
Quarries only.....	174	1,094	7	0.04	6	7
Quarries with dressing plants.....	1,201	8,530	177	0.15	21	165
Middle Atlantic and North Central.....	1,006	5,410	1,451	1.44	268	1,410
South and West.....	1,281	5,942	113	0.09	19	107
DIMENSION SLATE QUARRIES ³						
United States, total.....	1,259	5,697	33	0.03	6	25
New England.....	361	1,589	17	0.05	11	17
Middle Atlantic, total.....	718	3,533	10	0.01	3	7
New York.....	136	796	...	...	...	...
Pennsylvania.....	582	2,737	10	0.02	4	7
South and West.....	180	575	6	0.03	10	1
DIMENSION MARBLE QUARRIES						
United States, total.....	1,721	8,241	476	0.28	58	426
Quarries only.....	612	2,893	5	0.01	2	5
Quarries with dressing plants.....	1,109	5,348	471	0.42	88	421
DIMENSION SANDSTONE QUARRIES						
United States, total.....	1,807	9,050	369	0.20	41	369
Quarries only.....	925	4,178	5	0.01	1	5
Quarries with dressing plants.....	882	4,872	364	0.41	75	364
East, total.....	1,055	5,975	369	0.35	62	369
Quarries only.....	220	1,269	5	0.02	4	5
Quarries with dressing plants.....	835	4,706	364	0.44	77	364
Ohio.....	...	...	317	...	...	317
West.....	169	1,074	...	...	...	...
DIMENSION TRAP ROCK AND DIMENSION STONE, N.E.C. QUARRIES						
United States, total.....	247	1,124	16	0.06	14	14
Quarries only.....	142	552	...	...	...	...
Quarries with dressing plants.....	105	572	16	0.15	28	14

See footnotes at end of table.

Table 13.—WATER USE AT DIMENSION STONE QUARRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued
(For explanation of column captions, see INTRODUCTION)

Type of quarry, geographic division, and State	Mine water (million gallons)		Gross water use, including recircu- lation (million gallons)	Percent of total water intake (except mine water) by principal source					
	Used	Drained and dis- charged		Public water systems	Company surface water systems	Company ground water systems	Combined public water and company surface water systems	Combined public water and company ground water systems	Combined company surface and ground water systems
DIMENSION LIMESTONE QUARRIES									
United States, total.....	41	538	324	30	63	6	...	...	1
Quarries only.....	1	10	16	...	60	40	...	...	...
Quarries with dressing plants.....	40	528	308	32	63	4	...	...	1
North Central, total.....	41	538	318	30	63	6	...	...	1
Quarries only.....	1	10	15	...	64	36	...	...	...
Quarries with dressing plants.....	40	528	303	32	63	4	...	...	1
Indiana, total.....	40	40	293	32	66	2	...	...	...
Quarries only.....	...	...	14	...	64	36	...	...	...
Quarries with dressing plants.....	40	40	279	33	67	...	...	...	...
South and West.....	...	...	6	...	80	20	...	...	...
DIMENSION GRANITE QUARRIES									
United States, total.....	16	29	1,915	(²)	18	76	...	(²)	6
Quarries only.....	5	18	111	²	9	3	...	...	86
Quarries with dressing plants.....	11	11	1,804	(²)	18	80	...	(²)	2
New England, total.....	15	26	323	...	73	13	...	1	13
Quarries only.....	4	15	17	...	57	43	...	...	...
Quarries with dressing plants.....	11	11	306	...	74	12	...	1	13
Middle Atlantic and North Central.....	1	3	1,462	...	11	89	...	...	...
South and West.....	...	...	130	8	23	1	...	...	68
DIMENSION SLATE QUARRIES ³									
United States, total.....	10	116	59	24	21	16	...	...	39
New England.....	...	69	33	...	29	24	...	...	47
Middle Atlantic, total.....	10	47	20	80	20	...	...	...	...
New York.....	...	8	...	...	...	...	...	...	...
Pennsylvania.....	10	39	20	80	20	...	...	...	...
South and West.....	...	...	6	...	...	83	...	...	17
DIMENSION MARBLE QUARRIES									
United States, total.....	125	240	1,187	...	79	...	...	...	21
Quarries only.....	11	150	16	...	20	80	...	...	...
Quarries with dressing plants.....	114	90	1,171	...	79	...	...	...	21
DIMENSION SANDSTONE QUARRIES									
United States, total.....	47	1	486	1	99	...	...	...	...
Quarries only.....	1	1	5	60	40	...	...	...	...
Quarries with dressing plants.....	46	...	481	...	100	...	...	...	...
East, total.....	46	...	486	1	99	...	...	...	...
Quarries only.....	...	...	5	60	40	...	...	...	...
Quarries with dressing plants.....	46	...	481	...	100	...	...	...	...
Ohio.....	5	...	358	...	100	...	...	...	...
West.....	1	1	...	...	...	...	...	...	...
DIMENSION TRAP ROCK AND DIMENSION STONE, N.E C. QUARRIES									
United States, total.....	...	...	16	...	...	63	37	...	...
Quarries only.....	...	...	...	...	...	...	...	...	...
Quarries with dressing plants.....	...	...	16	...	...	63	37	...	...

¹For computations of water intake per production worker, including mine water used, see table 3B.

²Less than 0.05 percent.

³Represents quarries with dressing plants only.

CRUSHED AND BROKEN STONE

14D-1

Crushed and Broken Stone

This report shows 1954 Census of Mineral Industries statistics for establishments classified in Industry Group 142, Crushed and Broken Stone. The separate industries included in this group are as follows:

- 1422--Crushed and broken limestone
- 1423--Crushed and broken granite
- 1424--Crushed and broken slate
- 1425--Crushed and broken marble
- 1426--Crushed and broken trap rock
- 1427--Crushed and broken sandstone
- 1429--Crushed and broken stone, n.e.c.

Industry 1422, Crushed and broken limestone, represents establishments primarily engaged in mining or quarrying crushed and broken limestone, including related rocks, such as dolomite, cement rock, marl, travertine, and calcareous tufa. Establishments primarily engaged in mining or preparing bituminous limestone are currently classified in this industry. However, in previous years such establishments were included in the Native Asphalt and Bitumens Industry, and they have been so included in the 1954 Census tabulations. Quarries operated in conjunction with cement and lime plants are included in the crushed and broken limestone industry when separate reports are available; but the stone crushing operations at the plant are not included. For 1954, if a quarry producing crushed and broken limestone as a principal product was part of an establishment primarily manufacturing bituminous concrete, hydraulic cement, quicklime, hydrated lime, or ready-mixed concrete, the entire establishment was classified in the corresponding manufacturing industry or wholesale trade industry and only selected departmental data for the quarry were obtained. In 1954, such operations were included in the following industries: Industry 2951, Paving mixtures and blocks; Industry 3241, Cement, hydraulic; Industry 3274, Lime; Industry 5099, Lumber and construction materials. For 1939, separate reports were requested for all such quarries and they were classified in the crushed and broken limestone industry. In 1954, the value of crushed and broken limestone produced by quarries included in establishments classified in the manufacturing and wholesale trade industries amounted to about \$117 million, or 26 percent of the total value of shipments of all crushed and broken limestone quarries.

Industry 1423, Crushed and broken granite, represents establishments primarily engaged in mining or quarrying crushed and broken granite, including related rocks, such as gneiss, syenite, and diorite. Nepheline syenite operations are classified in Industry 1459, Clay, ceramic, and refractory minerals, not elsewhere classified. For 1954, if a quarry producing crushed and broken granite as a principal product was part of an establishment primarily manufacturing bituminous concrete or ready-mixed concrete, the entire establishment was classified in Industry 2951, Paving mixtures and blocks, or in Industry 5099, Lumber and construction materials, respectively. For 1939, separate reports were requested for all such quarries and they were classified in the crushed and broken granite industry. In 1954, the value of crushed and broken granite produced by quarries included in establishments classified in manufacturing or wholesale trade industries amounted to \$355 thousand, or slightly more than 1 percent of the total value of shipments of all crushed and broken granite quarries.

Industry 1424, Crushed and broken slate, represents establishments primarily engaged in mining or quarrying crushed and broken slate, including slate granules.

Industry 1425, Crushed and broken marble, represents establishments primarily engaged in mining or quarrying crushed

and broken marble, including serpentine (verde antique), dolomitic marble, and onyx marble.

Industry 1426, Crushed and broken trap rock, represents establishments primarily engaged in mining or quarrying crushed and broken trap rock (basalt, diabase, gabbro, and related rocks). For 1954, if a quarry producing crushed and broken trap rock as a principal product was part of an establishment primarily manufacturing bituminous concrete or ready-mixed concrete, the entire establishment was classified in Industry 2951, Paving mixtures and blocks, or Industry 5099, Lumber and construction materials, respectively. For 1939, separate reports were requested for all such quarries and they were classified in the crushed and broken trap rock industry. In 1954, the value of crushed and broken trap rock produced by quarries included in establishments classified in manufacturing or wholesale trade industries amounted to \$1,398 thousand, or 3 percent of the total value of shipments of all crushed and broken trap rock quarries.

Industry 1427, Crushed and broken sandstone, represents establishments primarily engaged in mining or quarrying crushed and broken sandstone, including quartzite and ganister. Establishments primarily engaged in mining or preparing bituminous sandstone are currently classified in this industry. However, in previous years such establishments were included in the Native Asphalt and Bitumens Industry, and they have been so included in the 1954 Census tabulations.

Industry 1429, Crushed and broken stone, n.e.c., represents establishments primarily engaged in mining or quarrying crushed and broken stone, not elsewhere classified, such as various light colored volcanic rocks, mica schist, and mixed boulders. For 1954, if a quarry producing miscellaneous crushed and broken stone as a principal product was part of an establishment primarily manufacturing bituminous concrete or ready-mixed concrete, the entire establishment was classified in Industry 2951, Paving mixtures and blocks, or in Industry 5099, Lumber and construction materials, respectively. For 1939, a separate report was requested for all such quarries and they were classified in the crushed and broken stone, n.e.c., industry. In 1954, the value of miscellaneous crushed and broken stone produced by quarries included in establishments classified in manufacturing or wholesale trade industries amounted to \$546 thousand, or slightly more than 3 percent of the total value of shipments of all miscellaneous crushed and broken stone quarries.

Selected statistics for crushed and broken stone mined at manufacturing and wholesale trade establishments are included in Tables 1, 2, 3A, 5A, 5B, and 6B of this report. Figures for them are not included in other tables.

The total value of shipments of the crushed and broken stone industries in 1954 was \$465 million of which primary products of these industries amounted to \$436 million and secondary products, products purchased and resold without further processing, and receipts for services amounted to \$29 million. Of the total value of shipments, the crushed and broken limestone industry accounted for \$329 million; the crushed and broken granite industry, \$31 million; the crushed and broken slate industry, \$8 million; the crushed and broken marble industry, \$5 million; the crushed and broken trap rock industry, \$45 million; the crushed and broken sandstone industry, \$31 million; and the crushed and broken stone, n.e.c., industry, \$16 million. These figures represent gross value of shipments and some of them contain duplication due to the inclusion of the value of stone transferred from one establishment to other establishments in the same industry for preparation. For the group as a whole, the cost of stone re-

ceived for preparation amounted to approximately \$2.4 million or about 0.5 percent of the total value of shipments of all industries in this group. However, included in the cost of stone received for preparation are freight and other transportation charges, where applicable. Separate figures on such charges are not available. For the crushed and broken stone, n.e.c., industry, no receipts of stone for preparation were reported. For the crushed and broken granite industry, crushed and broken slate industry, crushed and broken marble industry, and crushed and broken sandstone industry, receipts of stone for preparation were very small. For the crushed and broken limestone industry, the cost of stone received for preparation amounted to \$1.9 million or about 0.6 percent of the total value of shipments for this industry. For the crushed and broken trap rock industry, separate figures on cost of stone received cannot be shown without approximately disclosing the operations of individual companies. However, the cost of stone received for preparation in this industry was less than 2 percent of the total value of shipments.

The Bureau of Mines also collected statistics on crushed and broken stone for 1954 as part of its annual commodity survey program on minerals. A comparison of the figures tabulated by the two agencies on crushed and broken stone follows:

Kind of crushed and broken stone	Bureau of the Census shipped (net) or used (1,000 short tons)	Bureau of Mines, sold or used (1,000 short tons)
Total.....	369,104	370,003
Limestone (including calcareous marl)....	¹ 302,563	301,693
Granite.....	22,780	21,039
Slate.....	947	609
Marble.....	544	454
Trap rock.....	23,574	24,210
Sandstone.....	² 9,805	9,962
Stone, n.e.c.....	8,891	12,036

¹Includes 69,827 thousand tons of crushed and broken limestone and calcareous marl produced and used at the same establishment in the manufacture of hydraulic cement, quicklime, and hydrated lime.

²Includes 162 thousand tons of crushed and broken sandstone produced and used at the same establishment in the manufacture of hydraulic cement.

The Bureau of Mines figures have been adjusted for comparability with those of the Bureau of the Census to represent domestic commercial production of all kinds of crushed and broken stone. Excluded are figures on noncommercial operations (City, State, and Federal government operations); oystershells; quartz; and crushed and broken stone produced in the territories of the United States.

As the table indicates, the figures compiled by the two Bureaus on total crushed and broken stone differ by only 0.24 percent. For individual kinds of stone, the differences are somewhat greater, varying from 0.3 percent for limestone to 26 percent for miscellaneous stone. The reasons for these differences are summarized below:

1. The Bureau of the Census collects information on shipments (and some data on stone produced and used in the same establishment) and calculates net shipments whereas the Bureau of Mines obtains figures on stone sold or used.

2. A respondent may report different figures for the same product to the two Bureaus.

3. The Bureau of the Census may have better coverage of certain industries than the Bureau of Mines.

4. In some cases, a respondent will report his output of stone as one type of stone to the Bureau of the Census and as another type to the Bureau of Mines. This is particularly applicable to miscellaneous crushed and broken stone. In this case, the Bureau of the Census may have had more adequate descriptions of the kind of stone produced, thus being able to classify the stone under a particular type of stone rather than under the miscellaneous category. In this respect, it should be noted that although the Bureau of the Census figures on miscellaneous stone are about 26 percent less than those of the Bureau of Mines for this kind of stone, the overall figures on all crushed and broken stone compiled by the two agencies differ by only 0.24 percent, indicating that the Bureau of the Census was able to classify under a particular type of stone a substantial quantity of stone which the Bureau of Mines included under miscellaneous stone.

Table 1.—COMPARATIVE STATISTICS FOR CRUSHED AND BROKEN STONE
(For explanation of line captions and for statement on the minimum

Item	Crushed and broken stone quarries, total				
	1954			1939	1929
	Total	Quarries and plants classified in the crushed and broken stone industries	Quarries included in establishments classified in manufacturing and wholesale trade industries ¹		
1 Number of operating companies.....	(NA)	1,512	(NA)	1,183	(NA)
2 Number of establishments.....	2,156	1,901	255	(NA)	1,437
3 Number of quarries.....	2,137	1,882	255	1,533	1,531
4 Number of preparation plants.....	(NA)	1,761	(NA)	1,335	(NA)
5 Quantity of crushed and broken stone, total..... 1,000 short tons..	363,407	282,252	81,155	129,964	160,605
6 Produced and used at the same establishment in—					
7 Cement manufacture.....do....	59,150	...	59,150	29,072	37,496
7 Lime manufacture.....do....	10,839	...	10,839	10,204	8,403
8 Net shipments of crushed and broken stone ^{5 6}.....do....	293,418	282,252	11,166	90,688	114,706
9 Value of shipments and products produced and used in the same manufacturing establishment, total ⁷.....\$1,000..	⁸ 584,101	465,254	⁸ 118,847	101,589	130,659
10 Crushed and broken stone ⁶.....do....	⁸ 554,711	435,864	⁸ 118,847	100,065	(NA)
11 Other products and services.....do....	29,390	29,390	...	1,524	(NA)
12 Value added in mining.....do....		337,611		75,892	(NA)
13 Number of persons engaged, total.....		38,665		34,350	(NA)
14 Production and development workers.....	(NA)	33,124	(NA)	30,937	34,184
15 All other employees.....		4,280		2,770	
16 Proprietors and firm members.....		1,261		643	
17 Performing manual labor.....		595		258	
18 Man-hours worked by production and development workers, total..... 1,000..	88,136	75,559	12,577	62,366	
19 At mines, total.....do....	55,381	42,804	12,577	⁹ 45,260	(NA)
20 Underground.....do....	5,884	3,979	¹⁰ 1,905	⁹ 3,824	
21 Open quarry.....do....	40,718	30,046	¹⁰ 10,672	⁹ 37,970	
22 Surface (including mine shops and yards).....do....	8,779	8,779	(¹⁰)	⁹ 3,466	
23 At preparation plants.....do....	(NA)	32,755	(NA)	⁹ 14,599	
24 Tons of crushed and broken stone per man-hour.....	4.12	3.74	6.45	2.08	
25 Principal expenses designated below, total.....\$1,000..	(NA)	273,081	(NA)	63,352	(NA)
26 Wages of production and development workers.....do....	145,915	122,499	23,416	31,491	41,839
27 Salaries of all other employees.....do....	(NA)	22,697	(NA)	6,164	(NA)
28 Stone received for preparation.....do....		2,438		(NA)	(NA)
29 Supplies ¹¹.....do....		86,884		15,734	24,288
30 Fuel.....do....	149,697	16,050	21,812	4,309	4,055
31 Purchased electric energy.....do....		11,828		4,867	5,428
32 Contract work.....do....		10,685		787	
33 Purchased machinery installed.....do....		44,701			
34 Capital expenditures, total.....do....		44,943		(NA)	(NA)
35 Development and exploration of mineral property.....do....		1,376			
36 Preparation plant construction.....do....		9,163		1,115	
37 Other construction.....do....		2,731			
38 New machinery and equipment.....do....		26,316		4,038	
39 Used plant and equipment.....do....		5,357		1,010	
40 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total..... 1,000..		2,779		961	608
41 Per production worker.....	(NA)	84	(NA)	31	18
42 Prime movers..... 1,000..		1,964		461	225
43 Electric motors driven by purchased energy.....do....		815		500	383
44 Horsepower rating of electric motors driven by energy generated and used at same establishment.....do....		63		100	
45 Energy used.....million kwh equivalent..		6,883		4,554	
46 Coal..... 1,000 short tons..		168		409	
47 Fuel oils..... 1,000 barrels..		1,426		281	(NA)
48 Gas (natural and manufactured).....million cu. ft..		1,622		94	
49 Electric energy purchased.....million kwh..		742		329	
50 Electric energy generated and used.....do....		72		76	

See footnotes at end of table.

CRUSHED AND BROKEN STONE

14D-5

QUARRIES IN THE UNITED STATES: 1954, 1939, AND 1929

size of establishments included for each year, see INTRODUCTION)

Crushed and broken limestone quarries								
1954			1939			1929		
Total	Quarries and plants classified in the crushed and broken limestone industry	Quarries included in establishments classified in manufacturing and wholesale trade industries ¹	Total	Quarries and plants classified in the crushed and broken limestone industry	Quarries included in establishments classified in manufacturing industries	Total	Quarries and plants classified in the crushed and broken limestone industry	Quarries included in establishments classified in manufacturing industries
(NA)	1,174	(NA)	911	³ 714	³ 197	(NA)	(NA)	(NA)
1,690	1,447	243	(NA)	(NA)	(NA)	980	742	238
1,686	1,443	243	1,192	916	276	1,037	785	252
(NA)	1,362	(NA)	1,028	(NA)	(NA)	(NA)	(NA)	(NA)
299,924	220,233	79,691	108,228	68,952	39,276	133,278	75,634	57,644
59,150	...	59,150	29,072	...	⁴ 29,072	37,496	...	37,496
10,839	...	10,839	6,955	...	⁴ 6,955	8,403	...	8,403
229,935	220,233	9,702	72,201	68,952	⁴ 3,249	87,379	75,634	11,745
⁸ 445,305	328,757	⁸ 116,548	77,147	55,172	21,975	97,940	66,908	31,032
⁸ 427,515	310,967	⁸ 116,548	76,065	(NA)	(NA)	(NA)	(NA)	30,877
17,790	17,790	...	1,082	(NA)	(NA)	(NA)	(NA)	155
	239,604		57,959	41,430	16,529	(NA)	(NA)	(NA)
(NA)	29,257	(NA)	27,055	19,888	7,167	(NA)	(NA)	(NA)
	24,925		24,482	17,655	6,827	26,476	16,443	10,033
	3,315		2,031	1,726	305			
	1,017		542	507	35			
	490		214					
68,664	56,335	12,329	48,901			(NA)	(NA)	(NA)
45,451	33,122	12,329	⁹ 36,025					
5,692	3,787	¹⁰ 1,905	⁹ 3,677					
32,416	21,992	¹⁰ 10,424	⁹ 29,296	(NA)	(NA)			
7,343	7,343	(¹⁰)	⁹ 3,052					
(NA)	23,213	(NA)	⁹ 10,866					
4.37	3.91	6.46	2.21					
(NA)	196,322	(NA)	48,544	34,656	13,888	(NA)	(NA)	(NA)
113,587	90,715	22,872	24,903	17,064	7,839	32,067	19,437	12,630
(NA)	17,103	(NA)	4,453	3,850	603	(NA)	(NA)	(NA)
	1,895		(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
109,794	58,726		11,425	7,720	3,705	18,876	12,693	6,183
	11,913	21,290	3,404	2,735	669	3,233	2,399	834
	8,634		3,684	2,780	904	4,001	2,592	1,409
	7,336		675	507	168	(NA)	(NA)	(NA)
	32,622							
	31,973		(NA)					
	1,219					(NA)	(NA)	(NA)
	5,601		886					
	2,037		3,344					
	19,153	(NA)	797					
	3,963							
	2,183		756			461	276	185
(NA)	88		31	(NA)	(NA)	17	17	18
	1,583		374			185	103	82
	600		382			276	173	103
	59		93					
	4,956		3,901					
	99		366					
	1,056	91	215			(NA)	(NA)	(NA)
	1,197							
	544		264					
	68		74					

Table 1.—COMPARATIVE STATISTICS FOR CRUSHED AND BROKEN STONE

Item	Crushed and broken granite quarries				
	1954			1939	1929
	Total	Quarries and plants classified in the crushed and broken granite industry	Quarries included in establishments classified in manufacturing and wholesale trade industries ²		
1 Number of operating companies.....	78	75	3	59	(NA)
2 Number of establishments.....	104	101	3	(NA)	86
3 Number of quarries.....	102	99	3	79	89
4 Number of preparation plants.....	91	88	3	74	(NA)
5 Quantity of crushed and broken stone, total.....1,000 short tons..	21,958	21,693	265	6,423	5,951
6 Produced and used at the same establishment in—					
7 Cement manufacture.....do....	...	...	...	...	...
7 Lime manufacture.....do....	...	...	...	...	...
8 Net shipments of crushed and broken stone ⁵ 6.....do....	21,958	21,693	265	6,423	5,951
9 Value of shipments and products produced and used in the same manufacturing establishment, total ⁷.....\$1,000..	31,230	30,875	355	7,030	6,751
10 Crushed and broken stone ⁶.....do....	30,371	30,016	355	6,891	(NA)
11 Other products and services.....do....	859	859	...	139	(NA)
12 Value added in mining.....do....		22,201		5,042	(NA)
13 Number of persons engaged, total.....		2,605		2,354	(NA)
14 Production and development workers.....	(NA)	2,344	(NA)	2,100	2,066
15 All other employees.....		206		232	
16 Proprietors and firm members.....		55		22	
17 Performing manual labor.....		24		10	
18 Man-hours worked by production and development workers, total.....1,000..	5,655	5,607	48	4,574	
19 At mines, total.....do....	3,049	3,001	48	93,193	(NA)
20 Underground.....do....	3	3	...	...
21 Open quarry.....do....	2,591	2,543	1048	93,078	
22 Surface (including mine shops and yards).....do....	455	455	(10)	9115	
23 At preparation plants.....do....	(NA)	2,606	(NA)	91,262	
24 Tons of crushed and broken stone per man-hour.....	3.88	3.87	5.52	1.40	
25 Principal expenses designated below, total.....\$1,000..	(NA)	17,699	(NA)	4,343	(NA)
26 Wages of production and development workers.....do....	7,679	7,573	106	1,782	2,162
27 Salaries of all other employees.....do....	(NA)	1,306	(NA)	573	(NA)
28 Stone received for preparation.....do....				(NA)	(NA)
29 Supplies ¹¹.....do....		6,506		1,405	1,273
30 Fuel.....do....	8,993	747	173	223	209
31 Purchased electric energy.....do....		838		334	359
32 Contract work.....do....		729		26	
33 Purchased machinery installed.....do....		3,041			
34 Capital expenditures, total.....do....		3,187		(NA)	(NA)
35 Development and exploration of mineral property.....do....		13			
36 Preparation plant construction.....do....		742		75	
37 Other construction.....do....		102		210	
38 New machinery and equipment.....do....		1,841		50	
39 Used plant and equipment.....do....		489			
40 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....1,000..		169		48	38
41 Per production worker.....	(NA)	72	(NA)	23	18
42 Prime movers.....1,000..		106		21	7
43 Electric motors driven by purchased energy.....do....		63		27	31
44 Horsepower rating of electric motors driven by energy generated and used at same establishment.....do....		1		2	
45 Energy used.....million kwh equivalent..		282		166	
46 Coal.....1,000 short tons..		1		10	
47 Fuel oils.....1,000 barrels..		80		21	(NA)
48 Gas (natural and manufactured).....million cu. ft..		4		...	
49 Electric energy purchased.....million kwh..		60		21	
50 Electric energy generated and used.....do....		1		1	

See footnotes at end of table.

CRUSHED AND BROKEN STONE

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QUARRIES IN THE UNITED STATES: 1954, 1939, AND 1929—Continued

Crushed and broken slate industry			Crushed and broken marble industry			Crushed and broken trap rock quarries							
1954	1939	1929	1954	1939	1929	1954			1939	1929			
						Total	Quarries and plants classified in the crushed and broken trap rock industry	Quarries included in establishments classified in manufacturing and wholesale trade industries ²					
6	6	(NA)	14	6	(NA)	105	100	5	97	(NA)	1		
11	(NA)	6	18	(NA)	11	147	142	5	(NA)	124	2		
11	11	6	17	6	12	144	139	5	116	131	3		
11	11	(NA)	16	5	(NA)	136	131	5	115	(NA)	4		
928	308	177	469	34	91	23,544	22,467	1,077	9,797	11,947	5		
...	...	...	...	...	...	...	...	...	...	...	6
...	...	...	...	...	...	...	...	...	...	...	7
928	308	177	469	34	91	23,544	22,467	1,077	9,797	11,947	8		
8,162	2,137	1,026	5,142	185	471	46,869	45,471	1,398	9,632	14,799	9		
8,162	2,137	(NA)	4,545	150	(NA)	40,372	38,974	1,398	9,569	(NA)	10		
...	...	(NA)	597	35	(NA)	6,497	6,497	...	63	(NA)	11		
5,055	1,236	(NA)	3,661	160	(NA)	(NA)	34,127	(NA)	7,340	(NA)	12		
535	450	(NA)	433	80	(NA)		3,132		2,198	(NA)	13		
464	407	214	379	70	123		2,680		1,886	2,877	14		
69	43		52	9			377		278		15		
2	...		2	1			75		34		16		
...	...		2	...		(NA)	29	(NA)	11		17		
1,198	803		796	127			6,834		6,659	175	4,001		18
259	9294		237	9108			3,761		3,586	175	92,620		19
...	99	(NA)	104	...	(NA)		54		54	(NA)	20
259	9232		108	9106			3,147		2,972	10175	92,440		21
...	953		25	92		560	560	(10)	9180		22		
939	9485		559	913		(NA)	3,073	(NA)	91,103		23		
0.77	0.38		0.59	0.27		3.45	3.37	6.15	2.45		24		
5,484	1,420	(NA)	3,008	99	(NA)	(NA)	25,349	(NA)	5,395	(NA)	25		
1,949	426	209	1,120	44	162	12,500	12,089	411	2,452	4,247	26		
420	93	(NA)	249	30	(NA)	(NA)	2,116	(NA)	651	(NA)	27		
...	(NA)	(NA)		(NA)	(NA)	(NA)	7,600	(NA)	(NA)	(NA)	28		
2,045	716	120	1,268	11	19				1,344	2,104	29		
610	39	21	86	6	5		11,318		1,409	174	413	372	30
336	138	56	117	8	31				1,148		503	618	31
124	8		168	...					987		32		32
304			196			(NA)	3,870	(NA)			33		
312	(NA)	(NA)	354	(NA)	(NA)		3,670		(NA)	(NA)		34	
...			10				50					35	
14			126	...			754					36	
21	...		28				442				137		37
277	24		186	1		(NA)	1,915	(NA)	284		38		
...	...		4	1			509		101			39	
26	13	5	13	2	2				217		96	61	40
56	32	23	34	29	16		(NA)		81	(NA)	51	21	41
5	1	1	7	1	1				141			40	18	42
21	12	4	6	1	1	76			56		43	43	
...		1			4				44
498	55		54	11		(NA)		507	(NA)		280		45
53	5		4	1			6			20		46	
33	3	(NA)	1	1	(NA)		114			19	(NA)	47	
...			9			...		48	
24	10		11	1			60			23		49	
...	...		...	...		1		1			50

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 1.—COMPARATIVE STATISTICS FOR CRUSHED AND BROKEN STONE QUARRIES IN THE UNITED STATES: 1954, 1939, AND 1929—Continued

Item	Crushed and broken sandstone industry			Crushed and broken stone, n.e.c., quarries				
	1954	1939	1929	1954			1939	1929
				Total	Quarries and plants classified in the crushed and broken stone, n.e.c., industry	Quarries included in establishments classified in manufacturing and wholesale trade industries ²		
Number of operating companies.....	60	60	(NA)	87	83	4	60	(NA)
Number of establishments.....	87	(NA)	56	99	95	4	(NA)	174
Number of quarries.....	86	68	56	91	87	4	61	200
Number of preparation plants.....	74	50	(NA)	83	79	4	52	(NA)
Quantity of crushed and broken stone, total.....1,000 short tons..	9,573	2,500	2,491	7,011	6,889	122	2,624	6,670
Produced and used at the same establishment in—								
Cement manufacture.....do....	...	...	...	...	...	...	...	...
Lime manufacture.....do....	...	...	...	...	...	...	...	...
Net shipments of crushed and broken stone ⁵ 6.....do....	9,573	2,500	2,491	7,011	6,889	122	2,624	6,670
Value of shipments and products produced and used in the same manufacturing establishment, total ⁷.....\$1,000..	31,190	2,930	2,718	16,203	15,657	546	2,528	6,954
Crushed and broken stone ⁶.....do....	28,351	2,873	(NA)	15,395	14,849	546	2,380	(NA)
Other products and services.....do....	2,839	57	(NA)	808	808	...	148	(NA)
Value added in mining.....do....	22,913	2,160	(NA)		10,050		1,995	(NA)
Number of persons engaged, total.....	1,757	1,246	(NA)		946		967	(NA)
Production and development workers.....	1,529	1,134	921	(NA)	803	(NA)	858	1,507
All other employees.....	182	98			79		79	
Proprietors and firm members.....	46	14			64		30	
Performing manual labor.....	23	6			27		17	
Man-hours worked by production and development workers, total.....1,000..	3,283	1,990		1,706	1,681	25	1,970	
At mines, total.....do....	1,751	91,581	(NA)	873	848	25	91,439	(NA)
Underground.....do....	18	972		13	13	...	966	
Open quarry.....do....	1,452	91,465		745	720	1025	91,353	
Surface (including mine shops and yards).....do....	281	944		115	115	(10)	920	
At preparation plants.....do....	1,532	9364	(NA)		833	(NA)	9506	
Tons of crushed and broken stone per man-hour.....	2.92	1.26		4.11	4.10	4.88	1.33	
Principal expenses designated below, total.....\$1,000..	15,859	2,028	(NA)	(NA)	9,360	(NA)	1,523	(NA)
Wages of production and development workers.....do....	5,970	1,084	1,051	3,110	3,083	27	800	1,941
Salaries of all other employees.....do....	1,084	174	(NA)	(NA)	419	(NA)	190	(NA)
Stone received for preparation.....do....		(NA)	(NA)		...		(NA)	(NA)
Supplies ¹¹.....do....	6,636	519	473		4,646		314	1,423
Fuel.....do....	890	123	70	6,033	395	175	101	145
Purchased electric energy.....do....	542	105	144		213		95	219
Contract work.....do....	737	23			604		23	
Purchased machinery installed.....do....	4,096				572		(NA)	
Capital expenditures, total.....do....	4,624	(NA)			823		(NA)	
Development and exploration of mineral property.....do....	6		(NA)		78			(NA)
Preparation plant construction.....do....	1,712				214		34	
Other construction.....do....	60	23			41			
New machinery and equipment.....do....	2,701	39			243		136	
Used plant and equipment.....do....	145	31			247		30	
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....1,000..	108	25	15		63		21	26
Per production worker.....	71	22	16	(NA)	49	(NA)	24	17
Prime movers.....1,000..	73	14	5		49		10	8
Electric motors driven by purchased energy.....do....	35	11	10		14		11	18
Horsepower rating of electric motors driven by energy generated and used at same establishment.....do....	1	1			1		...	
Energy used.....million kwh equivalent..	393	95			193		46	
Coal.....1,000 short tons..	5	6			...		1	
Fuel oils.....1,000 barrels..	119	14	(NA)		23		8	(NA)
Gas (natural and manufactured).....million cu. ft..	134	3			278		...	
Electric energy purchased.....million kwh..	28	4			15		6	
Electric energy generated and used.....do....	1	...			1			

NA Not available. ¹Represents (a) quarries producing crushed and broken stone operated as part of an establishment primarily producing hydraulic cement, quicklime, or hydrated lime; and (b) quarries producing and shipping crushed and broken stone as a secondary product at establishments where the primary product is bituminous concrete or ready-mixed concrete. ²Represents quarries described in footnote 1, part (b). ³Represents only the approximate count of companies. Figures are available separately only for quarries at cement and lime plants. ⁴See table 2, footnote 4. ⁵For 1954, represents net shipments which are equal to total shipments and interplant transfers less stone received from other establishments for preparation. For 1939 and 1929, represents production. ⁶For individual industries, represents stone indicated by the name of the industry only. For all industries represents the sum of the figures for individual industries. ⁷For 1954, represents gross value of shipments and contains some duplication due to the inclusion of shipments of stone to other establishments in the same industry for preparation. For all crushed and broken stone industries combined this duplication amounted to only about one-half of one percent and was one percent or less for each industry in this group. For 1939 and 1929, represents value of products. ⁸For comparability with earlier years, includes an estimate of \$100 million representing the value of crushed and broken stone produced and used at the same establishment in the manufacture of hydraulic cement, quicklime, and hydrated lime. For 1929, the reported value of such stone included was \$23 million. ⁹Excludes man-hours worked on inactive days. The distribution of these man-hours is not available by department. ¹⁰Only data for total man-hours at mines were requested in the manufactures reports. These were tabulated separately for underground and open-pit mines. Man-hours for preparation of stone, if any, were probably included with other manufacturing plant man-hours. ¹¹For 1954, includes the cost of products purchased for resale without further processing, amounting to \$3,779 thousand for all crushed and broken stone industries. Data were requested on such products only for 1954.

CRUSHED AND BROKEN STONE

14D-9

Table 2.—COMPARATIVE STATISTICS FOR CRUSHED AND BROKEN LIMESTONE; CRUSHED AND BROKEN GRANITE; CRUSHED AND BROKEN TRAP ROCK; CRUSHED AND BROKEN SANDSTONE; AND CRUSHED AND BROKEN STONE, N.E.C., OPERATIONS FOR SELECTED STATES: 1954 AND 1939

(For explanation of column captions, see INTRODUCTION. For 1939, excludes nonproducing operations)

Industry, State, and Year	Number of quarries	Crushed and broken stone (1,000 short tons)				Value of shipments ² (\$1,000)	Production and development workers		Cost of supplies, stone received for preparation, fuel, purchased electric energy, and contract work (\$1,000)
		Total	Produced and used in the same establishment in the manufacture of—		Net shipments and interplant transfers ¹		Man-hours worked (1,000)	Wages (\$1,000)	
			Hydraulic cement	Lime					
CRUSHED AND BROKEN LIMESTONE INDUSTRY									
United States:									
1954, total.....	1,686	299,924	59,150	10,839	229,935	345,305	68,664	113,587	109,794
Crushed and broken limestone industry.....	1,443	220,233	...	...	220,233	328,757	56,335	90,715	88,504
Quarries included in manufactures ³	243	79,691	59,150	10,839	9,702	16,548	12,329	22,872	21,290
1939, total.....	1,192	108,228	29,072	6,955	72,201	77,147	48,901	24,903	19,187
Crushed and broken limestone industry.....	916	68,952	...	...	68,952	55,172	(NA)	17,064	13,740
Quarries included in manufactures ³	276	39,276	429,072	46,955	43,249	21,975	(NA)	7,839	5,447
Maine:									
1954.....	3	(D)	(D)	(D)	57	255	163	269	167
1939.....	3	280	(D)	(D)	(D)	273	150	74	42
Massachusetts:									
1954.....	7	457	...	246	211	771	105	183	180
1939, total.....	7	326	...	202	124	515	309	158	67
Crushed and broken limestone industry....	3	124	...	...	124	203	(NA)	63	22
Quarries included in manufactures ³	4	202	...	4202	(4)	312	(NA)	95	45
Connecticut:									
1954.....	4	(D)	...	(D)	86	412	78	109	149
1939.....	4	67	...	415	452	168	67	45	34
New York:									
1954.....	61	(D)	2,723	(D)	14,944	23,332	4,062	8,119	5,494
1939.....	62	9,087	41,736	(NA)	(NA)	6,956	3,108	2,023	1,854
Pennsylvania:									
1954, total.....	149	36,669	10,568	1,848	24,253	43,141	9,220	16,027	14,055
Crushed and broken limestone industry....	111	21,084	...	...	21,084	37,357	6,506	10,914	9,884
Quarries included in manufactures ³	38	15,585	10,568	1,848	3,169	5,784	2,714	5,113	4,171
1939, total.....	184	18,839	6,909	742	11,188	14,555	8,681	5,040	3,450
Crushed and broken limestone industry....	136	10,430	...	...	10,430	10,030	(NA)	3,396	2,321
Quarries included in manufactures ³	48	8,409	46,909	4742	4758	4,525	(NA)	1,644	1,129
Ohio:									
1954, total.....	120	31,797	3,126	3,325	25,346	35,877	6,840	12,500	10,108
Crushed and broken limestone industry....	100	23,401	...	...	23,401	33,603	562	10,213	8,402
Quarries included in manufactures ³	20	8,396	3,126	3,325	1,945	2,274	6,278	2,287	1,706
1939, total.....	139	12,730	1,293	1,297	10,140	9,092	5,084	2,504	2,494
Crushed and broken limestone industry....	118	7,528	...	...	7,528	5,675	(NA)	1,425	1,635
Quarries included in manufactures ³	21	5,202	41,293	41,297	42,612	3,417	(NA)	1,079	859
Indiana:									
1954, total.....	73	10,731	1,721	...	9,010	12,127	2,368	3,553	4,229
Crushed and broken limestone industry....	70	8,994	...	...	8,994	12,103	2,168	3,243	3,725
Quarries included in manufactures ³	3	1,737	1,721	...	16	24	200	310	504
1939, total.....	70	3,501	840	172	2,489	2,586	1,748	750	791
Crushed and broken limestone industry....	63	2,450	...	...	2,450	2,128	(NA)	564	678
Quarries included in manufactures ³	7	1,051	4840	4172	439	458	(NA)	186	113
Illinois:									
1954, total.....	140	(D)	2,522	(D)	22,546	35,810	5,333	9,423	8,267
Crushed and broken limestone industry....	134	22,499	...	(D)	22,499	35,728	4,977	8,669	7,845
Quarries included in manufactures ³	6	(D)	2,522	(D)	47	82	356	754	422
1939, total.....	71	7,142	1,283	111	5,748	4,901	2,696	1,615	1,180
Crushed and broken limestone industry....	62	5,747	...	...	5,747	4,253	(NA)	1,361	1,043
Quarries included in manufactures ³	9	1,395	41,283	4111	41	648	(NA)	254	137
Michigan (crushed and broken limestone industry only)									
1954.....	33	16,845	...	...	16,845	21,506	2,937	6,246	5,600
1939.....	13	14,456	...	...	14,456	6,686	(NA)	1,856	1,363
Wisconsin:									
1954, total.....	84	(D)	...	(D)	7,554	8,828	1,849	3,134	2,704
Crushed and broken limestone industry....	77	7,491	...	...	7,491	8,767	1,808	3,080	2,675
Quarries included in manufactures ³	7	(D)	...	(D)	63	61	41	54	29
1939, total.....	49	1,519	...	131	1,432	1,160	743	395	366
Crushed and broken limestone industry....	41	1,388	...	...	1,388	1,037	(NA)	338	344
Quarries included in manufactures ³	8	131	...	487	444	123	(NA)	57	22

See footnotes at end of table.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 2.—COMPARATIVE STATISTICS FOR CRUSHED AND BROKEN LIMESTONE; CRUSHED AND BROKEN GRANITE; CRUSHED AND BROKEN TRAP ROCK; CRUSHED AND BROKEN SANDSTONE; AND CRUSHED AND BROKEN STONE, N.E.C., OPERATIONS FOR SELECTED STATES: 1954 AND 1939—Continued

(For explanation of column captions, see INTRODUCTION. For 1939, excludes nonproducing operations)

Industry, State, and Year	Number of quarries	Crushed and broken stone (1,000 short tons)				Value of shipments ² (\$1,000)	Production and development workers		Cost of supplies, stone received for preparation, fuel, purchased electric energy, and contract work (\$1,000)
		Total	Produced and used in the same estab- lishment in the manufacture of--		Net ship- ments and interplant transfers ¹		Man-hours worked (1,000)	Wages (\$1,000)	
			Hydraulic cement	Lime					
CRUSHED AND BROKEN LIMESTONE INDUSTRY—Con.									
Iowa:									
1954, total.....	130	14,807	2,720	...	12,087	17,222	2,952	4,475	6,668
Crushed and broken limestone industry...	123	11,959	...	...	11,959	17,044	2,641	3,861	5,772
Quarries included in manufactures ³	7	2,848	2,720	...	128	178	311	614	896
1939, total.....	38	1,975	1,218	...	757	1,308	765	393	347
Crushed and broken limestone industry...	34	757	...	...	757	766	(NA)	230	202
Quarries included in manufactures ³	4	1,218	41,218	...	(4)	542	(NA)	163	145
Missouri:									
1954, total.....	179	16,796	2,755	2,062	11,979	17,863	4,270	6,870	5,993
Crushed and broken limestone industry...	169	11,266	...	...	11,266	16,322	3,288	5,009	4,439
Quarries included in manufactures ³	10	5,530	2,755	2,062	713	1,541	982	1,861	1,554
1939, total.....	80	4,471	1,413	875	2,183	3,826	3,234	1,486	859
Crushed and broken limestone industry...	68	2,183	...	...	2,183	2,482	(NA)	947	542
Quarries included in manufactures ³	12	2,288	41,413	4875	(4)	1,344	(NA)	539	317
South Dakota:									
1954.....	7	(D)	...	(D)	615	1,010	226	348	532
1939.....	4	27	...	(NA)	(NA)	32	30	13	4
Maryland:									
1954, total.....	15	4,041	(D)	(D)	3,129	6,224	865	1,302	1,975
Crushed and broken limestone industry...	10	2,727	...	...	2,727	5,611	699	1,033	1,672
Quarries included in manufactures ³	5	1,314	(D)	(D)	402	613	166	269	303
1939.....	12	878	(D)	464	(D)	764	454	205	136
West Virginia:									
1954.....	31	(D)	(D)	(D)	5,813	9,278	2,050	3,429	3,181
1939.....	25	2,945	(D)	4269	(D)	2,443	1,869	1,053	696
North Carolina:									
1954.....	10	2,040	...	...	2,040	2,630	418	525	574
1939.....	3	104	...	...	104	127	183	42	21
Georgia:									
1954.....	11	1,088	(D)	(D)	563	2,376	601	748	1,152
1939.....	10	592	(NA)	(NA)	(NA)	551	326	130	128
Florida:									
1954, total.....	57	(D)	(D)	...	11,153	15,126	2,779	3,624	4,439
Crushed and broken limestone industry...	53	10,802	...	...	10,802	14,805	2,607	3,306	3,999
Quarries included in manufactures ³	4	(D)	(D)	...	351	321	172	318	440
1939.....	28	1,855	(D)	(D)	(D)	1,672	1,296	405	335
Tennessee:									
1954, total.....	83	(D)	2,111	(D)	9,603	12,744	2,947	3,873	4,035
Crushed and broken limestone industry...	75	9,533	...	...	9,533	12,657	2,481	3,049	3,403
Quarries included in manufactures ³	8	(D)	2,111	(D)	70	87	466	824	632
1939, total.....	37	1,626	820	236	570	1,243	1,133	423	307
Crushed and broken limestone industry...	24	495	...	...	495	546	(NA)	171	157
Quarries included in manufactures ³	13	1,131	4820	4236	475	697	(NA)	252	150
Texas:									
1954, total.....	43	11,701	4,814	486	6,401	8,880	2,220	3,262	4,377
Crushed and broken limestone industry...	22	5,980	...	...	5,980	8,399	1,502	2,041	2,921
Quarries included in manufactures ³	21	5,721	4,814	486	421	481	718	1,221	1,456
1939, total.....	24	2,697	1,546	68	1,083	1,190	1,033	365	369
Crushed and broken limestone industry...	12	1,083	...	...	1,083	778	(NA)	213	249
Quarries included in manufactures ³	12	1,614	1,546	468	(4)	412	(NA)	152	120
Arizona:									
1954.....	5	604	(D)	(D)	51	82	105	178	210
1939.....	4	243	...	4184	459	225	130	69	75
Utah:									
1954, total.....	10	1,167	(D)	(D)	745	889	227	430	245
Crushed and broken limestone industry...	7	745	...	...	745	889	175	319	207
Quarries included in manufactures ³	3	422	(D)	(D)	...	...	52	111	38
1939.....	10	397	(D)	67	(D)	215	144	81	60

See footnotes at end of table.

CRUSHED AND BROKEN STONE

14D-11

Table 2.—COMPARATIVE STATISTICS FOR CRUSHED AND BROKEN LIMESTONE; CRUSHED AND BROKEN GRANITE; CRUSHED AND BROKEN TRAP ROCK; CRUSHED AND BROKEN SANDSTONE; AND CRUSHED AND BROKEN STONE, N.E.C., OPERATIONS FOR SELECTED STATES: 1954 AND 1939—Continued

(For explanation of column captions, see INTRODUCTION. For 1939, excludes nonproducing operations)

Industry, State, and Year	Number of quarries	Crushed and broken stone (1,000 short tons)				Value of shipments ² (\$1,000)	Production and development workers		Cost of supplies, stone received for preparation, fuel, purchased electric energy, and contract work (\$1,000)
		Total	Produced and used in the same establishment in the manufacture of—		Net shipments and interplant transfers ¹		Man-hours worked (1,000)	Wages (\$1,000)	
			Hydraulic cement	Lime					
CRUSHED AND BROKEN LIMESTONE INDUSTRY—Con.									
Washington:									
1954, total.....	16	(D)	1,037	(D)	371	1,022	308	664	911
Crushed and broken limestone industry...	9	335	...	...	335	933	111	232	211
Quarries included in manufactures ³	7	(D)	1,037	(D)	36	89	197	432	700
1939, total.....	18	1,563	920	92	551	933	618	435	204
Crushed and broken limestone industry...	10	502	...	...	502	402	(NA)	183	78
Quarries included in manufactures ³	8	1,061	4920	492	449	531	(NA)	252	126
California:									
1954, total.....	36	11,169	7,323	339	3,507	6,417	1,560	3,247	3,824
Crushed and broken limestone industry...	22	3,199	...	...	3,199	5,448	640	1,266	1,490
Quarries included in manufactures ³	14	7,970	7,323	339	308	969	920	1,981	2,334
1939, total.....	21	3,533	2,617	111	805	2,465	1,200	843	643
Crushed and broken limestone industry...	10	805	...	...	805	1,039	(NA)	409	201
Quarries included in manufactures ³	11	2,728	42,617	4111	(4)	1,426	(NA)	434	442
CRUSHED AND BROKEN GRANITE INDUSTRY									
United States:									
1954, total.....	102	21,958	...	...	21,958	31,230	5,655	7,679	8,993
Crushed and broken granite industry...	99	21,693	...	...	21,693	30,875	5,607	7,573	8,820
Quarries included in manufactures ³ ...	3	265	...	...	265	355	48	106	173
1939.....	79	6,423	...	...	6,423	7,030	4,574	1,782	1,988
Virginia:									
1954.....	6	1,521	...	...	1,521	2,130	441	475	723
1939.....	6	547	...	...	547	593	331	142	241
North Carolina:									
1954.....	19	6,426	...	...	6,426	9,170	1,696	1,995	2,592
1939.....	21	1,668	...	...	1,668	1,796	1,420	379	571
South Carolina:									
1954.....	5	2,227	...	...	2,227	3,168	724	716	1,065
1939.....	4	1,135	...	...	1,135	1,261	877	267	417
Georgia:									
1954.....	12	3,220	...	...	3,220	6,049	1,068	1,305	2,030
1939.....	5	824	...	...	824	805	504	171	268
CRUSHED AND BROKEN TRAP ROCK INDUSTRY									
United States:									
1954, total.....	144	23,544	...	...	23,544	46,869	6,834	12,500	11,318
Crushed and broken trap rock industry...	139	22,467	...	...	22,467	45,471	6,659	12,089	11,144
Quarries included in manufactures ³ ...	5	1,077	...	...	1,077	1,398	175	411	174
1939.....	116	9,797	...	...	9,797	9,632	4,001	2,452	2,291
New York:									
1954.....	4	2,264	...	...	2,264	3,618	575	1,350	711
1939.....	3	1,132	...	...	1,132	993	305	229	212
New Jersey:									
1954.....	19	6,384	...	...	6,384	18,024	2,236	3,816	3,730
1939.....	17	2,255	...	...	2,255	2,481	979	643	635
Pennsylvania:									
1954.....	14	2,700	...	...	2,700	6,409	1,286	1,982	1,965
1939.....	10	878	...	...	878	803	353	205	237
Maryland:									
1954.....	5	862	...	...	862	1,510	175	284	245
1939.....	6	233	...	...	233	281	207	86	82
Washington:									
1954.....	18	1,743	...	...	1,743	2,166	307	841	604
1939.....	9	441	...	...	441	378	174	125	93
California:									
1954.....	14	1,160	...	...	1,160	1,782	299	614	383
1939.....	11	674	...	...	674	663	315	188	136

See footnotes at end of table.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 2.—COMPARATIVE STATISTICS FOR CRUSHED AND BROKEN LIMESTONE; CRUSHED AND BROKEN GRANITE; CRUSHED AND BROKEN TRAP ROCK; CRUSHED AND BROKEN SANDSTONE; AND CRUSHED AND BROKEN STONE, N.E.C., OPERATIONS FOR SELECTED STATES: 1954 AND 1939—Continued

(For explanation of column captions, see INTRODUCTION. For 1939, excludes nonproducing operations)

Industry, State, and Year	Number of quarries	Crushed and broken stone (1,000 short tons)				Value of shipments ² (\$1,000)	Production and development workers		Cost of supplies, stone received for preparation, fuel, purchased electric energy, and contract work (\$1,000)
		Total	Produced and used in the same establishment in the manufacture of—		Net shipments and interplant transfers ¹		Man-hours worked (1,000)	Wages (\$1,000)	
			Hydraulic cement	Lime					
CRUSHED AND BROKEN SANDSTONE INDUSTRY									
United States:									
1954.....	86	9,573	...	...	9,573	31,190	3,283	5,970	8,805
1939.....	68	2,509	...	...	2,509	2,930	1,990	1,084	770
New York:									
1954.....	3	478	...	...	478	717	150	249	130
1939.....	4	133	...	...	133	175	83	35	76
Pennsylvania:									
1954.....	25	963	...	...	963	3,264	593	940	964
1939.....	35	1,196	...	...	1,196	1,544	1,091	612	337
South Dakota:									
1954.....	4	736	...	...	736	1,716	222	365	775
1939.....	4	157	...	...	157	159	114	54	25
California:									
1954.....	11	1,461	...	...	1,461	3,611	416	938	526
1939.....	8	409	...	...	409	407	242	169	100
CRUSHED AND BROKEN STONE, N.E.C., INDUSTRY									
United States:									
1954, total.....	91	7,011	...	...	7,011	16,203	1,706	3,110	6,033
Crushed and broken stone, n.e.c., industry.....	87	6,889	...	...	6,889	15,657	1,681	3,083	5,858
Quarries included in manufactures ³ ...	4	122	...	...	122	546	25	27	175
1939.....	61	2,624	...	...	2,624	2,528	1,970	800	532
California:									
1954.....	19	1,530	...	...	1,530	5,408	499	1,136	1,934
1939.....	16	861	...	...	861	471	161	102	76

D Withheld to avoid approximately disclosing figures for individual companies.

NA Not available.

¹See table 1, footnote 5.

²For 1954, for quarries classified in the crushed and broken stone industries represents the value of shipments of crushed and broken stone and the value of secondary products and services. For quarries included in establishments classified in other industries, represents only the value of crushed and broken stone shipped and excludes the value of stone produced and used in the same establishment. For 1939, represents the value of primary and secondary products and services, including the value of stone produced and used in the same establishment, such as at cement and lime plants.

³Represents data for quarries only. Excludes man-hours and costs for crushing and grinding at other departments of cement, lime, and other manufacturing and wholesale trade establishments.

⁴For 1939, the only available figures are total quantity of stone produced at cement and lime plants, and the total quantity of crushed and broken stone, by kind, used in cement and lime manufacture. Since almost all stone produced at cement plants is used in making cement, this total production is shown in the columns for stone produced and used in the same establishment for manufacture of hydraulic cement. At lime plants a large portion of the stone produced is sold as such. Hence, figures for total stone used in lime manufacture are shown in the column for stone produced and used in the same establishment for manufacture of lime wherever this figure is less than production at lime plants; the difference between these two figures is shown in the net shipments column.

CRUSHED AND BROKEN STONE

14D-13

Table 3A.—SELECTED STATISTICS FOR CRUSHED AND BROKEN STONE QUARRIES FOR THE UNITED STATES AND HAWAII,
BY GEOGRAPHIC DIVISIONS AND STATES: 1954

Geographic division and State	Number of quarries	Crushed and broken stone (1,000 short tons)			Value of shipments ² (\$1,000)	Production and development workers		Cost of supplies, stone received for preparation, fuel, purchased electric energy, and contract work (\$1,000)
		Produced and used at the same establishment in the manufacture of—		Net shipments and interplant transfers ¹		Man-hours worked (1,000)	Wages (\$1,000)	
		Hydraulic cement	Lime					
United States, ³ total.....	2,137	59,150	10,839	293,418	484,101	88,136	145,915	149,697
Quarries and plants classified in the crushed and broken stone industries.....	1,882	...	...	282,252	465,254	75,559	122,499	127,885
Quarries included in establishments classified in: ⁴								
Hydraulic cement industry.....	141	59,150	...	2,479	3,177	8,303	16,112	15,150
Lime industry.....	77	...	10,839	5,791	11,378	3,375	5,743	5,188
Other industries ⁵	37	...	...	2,896	4,292	899	1,561	1,474
New England, total.....	65	(D)	345	7,149	16,442	2,655	4,720	4,839
Maine.....	11	(D)	(D)	517	1,137	440	714	315
Vermont.....	6	...	(D)	486	4,544	539	1,026	1,638
Massachusetts, total.....	26	...	246	3,235	5,464	898	1,708	1,446
Quarries and plants classified in the crushed and broken stone industries.....	19	...	...	2,482	3,890	703	1,293	1,109
Other quarries ⁶	7	...	246	753	1,574	195	415	337
Connecticut.....	18	...	(D)	2,765	4,915	694	1,138	1,267
New Hampshire and Rhode Island.....	4	...	...	146	382	84	134	173
Middle Atlantic, total.....	297	13,291	(D)	53,096	103,667	18,955	33,881	28,233
New York, total.....	72	2,723	(D)	17,761	28,214	4,920	9,970	6,520
Quarries and plants classified in the crushed and broken stone industries.....	55	...	...	17,397	27,638	4,393	9,004	5,484
Other quarries ⁶	17	2,723	(D)	364	576	527	966	1,036
New Jersey.....	28	...	...	7,115	21,414	2,667	4,601	4,348
Pennsylvania, total.....	197	10,568	1,848	28,220	54,039	11,368	19,310	17,365
Quarries and plants classified in the crushed and broken stone industries.....	159	...	...	25,052	48,255	8,654	14,197	13,194
Other quarries ⁶	38	10,568	1,848	3,168	5,784	2,714	5,113	4,171
East North Central, total.....	476	8,273	3,445	82,588	130,375	20,460	37,060	36,460
Ohio, total.....	125	3,126	3,325	25,721	37,938	7,088	12,939	10,731
Quarries and plants classified in the crushed and broken stone industries.....	105	...	...	23,777	35,664	5,943	10,652	9,025
Other quarries ⁶	20	3,126	3,325	1,944	2,274	1,145	2,287	1,706
Indiana.....	75	1,721	...	9,031	12,189	2,383	3,564	4,244
Illinois.....	143	2,522	(D)	22,582	36,137	5,388	9,517	8,380
Michigan.....	39	904	...	16,850	21,554	3,041	6,443	6,498
Wisconsin.....	94	...	(D)	8,404	22,557	2,560	4,597	6,607
West North Central, total.....	455	(D)	(D)	38,171	55,485	11,140	17,757	20,906
Minnesota.....	30	...	...	2,787	3,878	820	1,330	1,385
Iowa.....	132	2,720	...	12,128	17,263	2,968	4,492	6,683
Missouri, total.....	181	2,755	2,062	12,376	18,076	4,283	6,892	6,059
Quarries and plants classified in the crushed and broken stone industries.....	171	...	...	11,663	16,535	3,301	5,031	4,505
Other quarries ⁶	10	2,755	2,062	713	1,541	982	1,861	1,554
South Dakota.....	10	...	(D)	1,351	2,726	448	713	1,307
Nebraska.....	26	(D)	...	1,845	3,400	790	1,348	1,463
Kansas.....	76	2,475	...	7,684	10,142	1,831	2,982	4,009
South Atlantic, total.....	271	4,934	1,275	48,149	81,337	15,747	21,050	25,214
Maryland.....	24	(D)	(D)	4,101	8,434	1,189	1,843	2,370
Virginia, total.....	75	(D)	725	8,240	13,743	3,611	4,632	4,815
Quarries and plants classified in the crushed and broken stone industries.....	64	...	...	7,976	12,940	3,043	3,673	4,012
Other quarries ⁶	11	(D)	725	264	803	568	959	803
West Virginia.....	40	(D)	(D)	7,971	12,959	2,327	4,010	3,812
North Carolina.....	32	...	...	8,930	12,963	2,267	2,708	3,560
Georgia.....	28	(D)	(D)	4,919	13,618	2,495	3,039	4,709
Florida.....	61	(D)	...	11,239	15,194	2,798	3,650	4,439
Delaware and South Carolina.....	11	(D)	...	2,749	4,426	1,060	1,168	1,509

See footnotes at end of table.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 3A.—SELECTED STATISTICS FOR CRUSHED AND BROKEN STONE QUARRIES FOR THE UNITED STATES AND HAWAII,
BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

Geographic division and State	Number of quarries	Crushed and broken stone (1,000 short tons)			Value of shipments ² (\$1,000)	Production and development workers		Cost of supplies, stone received for preparation, fuel, purchased electric energy, and contract work (\$1,000)
		Produced and used at the same establishment in the manufacture of—		Net shipments and interplant transfers ¹		Man-hours worked (1,000)	Wages (\$1,000)	
		Hydraulic cement	Lime					
East South Central, total.....	203	5,116	(D)	24,482	34,719	7,935	10,903	10,898
Kentucky.....	84	...	...	10,603	14,417	2,867	4,464	3,421
Tennessee.....	88	2,111	(D)	9,769	13,099	3,057	4,021	4,164
Alabama and Mississippi.....	31	3,005	433	4,110	7,203	2,011	2,418	3,313
West South Central, total.....	86	(D)	(D)	16,717	25,604	5,172	7,489	10,154
Arkansas.....	12	(D)	(D)	3,108	9,139	1,099	1,592	3,305
Texas, total.....	50	4,814	486	7,085	9,964	2,380	3,515	4,957
Quarries and plants classified in the crushed and broken stone industries.....	29	...	...	6,664	9,483	1,662	2,294	3,501
Other quarries ⁶	21	4,814	486	421	481	718	1,221	1,456
Louisiana and Oklahoma.....	24	1,706	...	6,524	6,501	1,693	2,382	1,892
Mountain, total.....	84	2,474	274	6,739	8,195	1,549	3,082	3,252
Montana.....	17	(D)	(D)	1,705	1,399	178	389	820
Idaho.....	10	(D)	...	790	1,227	166	378	565
Wyoming.....	8	(D)	...	927	1,213	261	528	484
Colorado.....	14	(D)	...	431	1,231	195	338	417
Utah.....	14	(D)	(D)	769	1,003	240	453	294
Nevada.....	9	...	(D)	1,415	1,484	244	500	380
New Mexico and Arizona.....	12	(D)	(D)	702	638	265	496	292
Pacific, total.....	200	(D)	(D)	16,327	28,277	4,523	9,973	9,741
Washington.....	51	1,037	(D)	2,762	4,217	763	1,844	1,634
Oregon.....	44	(D)	...	2,482	3,204	470	1,071	796
California, total.....	105	7,323	339	11,083	20,856	3,290	7,058	7,311
Quarries and plants classified in the crushed and broken stone industries.....	89	...	...	10,793	19,784	2,329	4,987	4,856
Other quarries ⁶	16	7,323	339	290	1,072	961	2,071	2,455
Hawaii ³	8	...	...	784	1,503	319	514	328

D Withheld to avoid approximately disclosing figures of individual companies.

¹See table 1, footnote 5.²See table 2, footnote 2.³Statistics for Hawaii are not included in the United States totals.⁴See table 2, footnote 3.⁵See table 1, footnote 2.⁶See table 1, footnote 1.

CRUSHED AND BROKEN STONE

14D-15

Table 3B.—DETAILED STATISTICS FOR THE CRUSHED AND BROKEN STONE INDUSTRIES BY GEOGRAPHIC DIVISIONS AND STATES: 1954

(For explanation of column captions, see INTRODUCTION)

Item	Crushed and broken limestone industry			
	United States, total	New England ¹	Middle Atlantic	
			Total ²	Pennsylvania
Number of operating companies.....	1,174	11	136	97
Number of establishments.....	1,447	11	166	114
Number of quarries.....	1,443	11	160	111
Number of preparation plants.....	1,362	10	164	113
Net shipments of crushed and broken stone ^{26 27}....1,000 short tons..	220,233	382	35,995	21,084
Value of shipments, total.....\$1,000..	328,757	1,169	62,196	37,357
Crushed and broken stone ²⁷.....do....	310,967	1,120	56,935	33,405
Other products and services.....do....	17,790	49	5,261	3,952
Value added in mining.....do....	239,604	735	46,241	27,077
Number of persons engaged, total.....	29,257	131	5,397	3,633
Production and development workers.....	24,925	109	4,661	3,122
All other employees.....	3,315	21	642	436
Proprietors and firm members.....	1,017	1	94	75
Performing manual labor.....	490	1	49	41
Man-hours worked by production and development workers, total.....1,000..	56,335	256	10,331	6,506
At mines, total.....do....	33,122	99	6,181	4,228
Underground.....do....	3,787	...	779	779
Open quarry.....do....	21,992	99	3,976	2,486
Surface (including mine shops and yards).....do....	7,343	...	1,426	963
At preparation plants.....do....	23,213	157	4,150	2,278
Man-hours spent in development and exploration work (included above).....do....	992	...	72	42
Tons of crushed and broken stone per man-hour.....	3.91	1.49	3.48	3.24
Principal expenses designated below, total.....\$1,000..	196,322	953	37,009	23,243
Wages of production and development workers.....do....	90,715	361	18,520	10,914
Salaries of all other employees.....do....	17,103	119	3,647	2,445
Stone received for preparation.....do....	1,895	...	392	...
Supplies.....do....	58,726	299	9,702	6,636
Fuel.....do....	11,913	40	1,682	1,053
Purchased electric energy.....do....	8,634	58	2,028	1,268
Contract work.....do....	7,336	76	1,038	927
Purchased machinery installed.....do....	32,622	118	6,273	3,674
Capital expenditures, total.....do....	31,973	157	5,160	3,278
Development and exploration of mineral property.....do....	1,219	5	232	226
Preparation plant construction.....do....	5,601	23	973	634
Other construction.....do....	2,037	23	469	206
New machinery and equipment.....do....	19,153	95	3,087	1,939
Used plant and equipment.....do....	3,963	11	399	273
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	2,183,340	10,989	383,471	264,567
Per production worker.....	88	101	82	85
Prime movers.....	1,583,206	7,292	235,658	167,692
Electric motors driven by purchased energy.....	600,134	3,697	147,813	96,875
Horsepower rating of electric motors driven by energy generated and used at the same establishment.....	58,592	...	6,505	2,960
Energy used.....million kwh equivalent..	4,956	12	722	414
Bituminous coal.....1,000 short tons..	99	...	18	4
Fuel oils.....1,000 barrels..	1,056	...	144	96
Gas (natural and manufactured).....million cu. ft..	1,197	...	23	22
Electric energy purchased.....million kwh ..	544	3	129	77
Electric energy generated and used.....do....	68	...	8	1
Water intake, including mine water used.....million gallons..	53,610	28	22,303	19,904
Per production worker.....do....	2.15	0.26	4.79	6.38

See footnotes at end of table.

Table 3B.—DETAILED STATISTICS FOR THE CRUSHED AND BROKEN STONE

(For explanation of column

Item	Crushed and broken limestone industry—Continued					
	East North Central					
	Total	Ohio	Indiana	Illinois	Michigan	Wisconsin
1 Number of operating companies.....	378	84	64	121	32	77
2 Number of establishments.....	421	102	73	134	33	79
3 Number of quarries.....	414	100	70	134	33	77
4 Number of preparation plants.....	390	99	70	133	14	74
5 Net shipments of crushed and broken stone ^{26 27}.....1,000 short tons..	79,230	23,401	8,994	22,499	16,845	7,491
6 Value of shipments, total.....\$1,000..	111,707	33,603	12,103	35,728	21,506	8,767
7 Crushed and broken stone ²⁷.....do....	106,489	32,265	11,656	32,990	21,238	8,340
8 Other products and services.....do....	5,218	1,338	447	2,738	268	427
9 Value added in mining.....do....	83,926	26,056	8,495	27,396	16,030	5,949
10 Number of persons engaged, total.....	9,076	2,968	1,124	2,514	1,518	952
11 Production and development workers.....	7,678	2,469	960	2,171	1,301	777
12 All other employees.....	1,052	442	122	209	192	87
13 Proprietors and firm members.....	346	57	42	134	25	88
14 Performing manual labor.....	182	28	15	68	15	56
15 Man-hours worked by production and development workers, total.....1,000..	17,585	5,695	2,168	4,977	2,937	1,808
16 At mines, total.....do....	10,651	3,723	1,138	2,942	1,884	964
17 Underground.....do....	633	408	25	199	1	...
18 Open quarry.....do....	6,945	1,855	939	1,978	1,363	810
19 Surface (including mine shops and yards).....do....	3,073	1,460	174	765	520	154
20 At preparation plants.....do....	6,934	1,972	1,030	2,035	1,053	844
21 Man-hours spent in development and exploration work (included above).....do....	204	141	30	26	...	7
22 Tons of crushed and broken stone per man-hour.....	4.51	4.11	4.15	4.52	5.74	4.14
23 Principal expenses designated below, total.....\$1,000..	65,859	21,142	7,572	17,784	13,239	6,122
24 Wages of production and development workers.....do....	31,451	10,213	3,243	8,669	6,246	3,080
25 Salaries of all other employees.....do....	6,153	2,527	604	1,270	1,385	367
26 Stone received for preparation.....do....	498	...	...	...	...	...
27 Supplies.....do....	19,096	6,072	2,432	5,135	4,400	1,555
28 Fuel.....do....	3,642	905	520	989	645	583
29 Purchased electric energy.....do....	2,793	1,188	453	708	305	139
30 Contract work.....do....	2,226	237	320	1,013	258	398
31 Purchased machinery installed.....do....	8,955	3,129	1,281	2,563	830	1,152
32 Capital expenditures, total.....do....	9,429	3,984	1,398	2,076	962	1,009
33 Development and exploration of mineral property.....do....	344	299	17	23	...	5
34 Preparation plant construction.....do....	1,786	935	214	323	116	198
35 Other construction.....do....	941	231	16	380	307	7
36 New machinery and equipment.....do....	5,240	2,086	957	1,132	485	580
37 Used plant and equipment.....do....	1,118	433	194	218	54	219
38 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	680,381	195,191	93,071	165,558	108,777	117,784
39 Per production worker.....	89	79	97	76	84	152
40 Prime movers.....	489,524	120,167	57,831	123,091	79,828	108,607
41 Electric motors driven by purchased energy.....	190,857	75,024	35,240	42,467	28,949	9,177
42 Horsepower rating of electric motors driven by energy generated and used at the same establishment.....	40,621	8,020	799	7,624	24,121	57
43 Energy used.....million kwh equivalent..	1,584	387	192	384	444	177
44 Bituminous coal.....1,000 short tons..	64	10	2	6	45	1
45 Fuel oils.....1,000 barrels..	288	78	39	96	37	38
46 Gas (natural and manufactured).....million cu. ft..	85	21	14	42	...	8
47 Electric energy purchased.....million kwh..	153	68	21	42	15	7
48 Electric energy generated and used.....do....	48	10	1	2	35	...
49 Water intake, including mine water used.....million gallons..	13,260	1,790	1,770	614	8,972	114
50 Per production worker.....do....	1.73	0.72	1.84	0.28	6.90	0.15

See footnotes at end of table.

INDUSTRIES BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

captions, see INTRODUCTION)

Crushed and broken limestone industry—Continued										
West North Central					South Atlantic					
Total ³	Iowa	Missouri	South Dakota	Kansas	Total ⁴	Maryland	Virginia	West Virginia	North Carolina	Florida
340	95	145	6	49	141	10	45	24	10	43
404	118	163	6	68	158	10	47	27	10	53
418	123	169	6	68	157	10	47	27	10	53
384	116	158	6	63	143	10	46	26	9	41
34,717	11,959	11,266	615	6,754	27,637	2,727	5,597	5,523	2,040	10,802
50,448	17,044	16,322	1,010	9,492	43,334	5,611	8,561	8,824	2,630	14,805
47,734	15,619	15,731	894	9,253	41,720	4,633	8,461	8,799	2,615	14,457
2,714	1,425	591	116	239	1,614	978	100	25	15	348
35,191	11,266	12,565	682	6,197	31,103	3,807	6,056	6,538	2,044	10,469
4,897	1,363	1,924	117	797	3,914	314	1,052	925	219	1,135
3,949	1,110	1,510	103	627	3,474	279	936	807	207	999
624	156	269	8	134	378	31	100	103	7	120
324	97	145	6	36	62	4	16	15	5	16
169	47	86	4	14	23	2	6	4	2	8
8,949	2,641	3,288	224	1,406	7,992	699	2,080	1,630	418	2,607
5,343	1,342	2,044	118	826	4,522	307	1,207	1,126	186	1,465
1,000	21	316	...	255	297	...	12	285	...	...
3,597	1,205	1,466	84	489	3,163	304	989	550	156	986
746	116	262	34	82	1,062	3	206	291	30	479
3,606	1,299	1,244	106	580	3,470	392	873	504	232	1,142
509	77	26	...	3	144	...	35	...	...	45
3.88	4.53	3.43	2.75	4.80	3.46	3.90	2.69	3.39	4.88	4.14
32,551	10,295	10,583	924	6,111	24,801	2,887	5,423	5,604	1,142	7,891
13,775	3,861	5,009	345	2,271	10,692	1,033	2,566	2,621	525	3,306
2,747	662	1,135	48	606	1,880	182	422	550	43	586
121	4,282	2,912	...	...	8,087	1,313	1,622	1,677	452	2,115
10,908	4,282	2,912	445	2,133	8,087	1,313	1,622	1,677	452	2,115
3,043	1,021	1,003	53	397	1,364	170	344	186	62	501
671	157	232	23	174	1,369	73	444	341	53	369
1,286	312	292	10	530	1,409	116	25	229	7	1,014
6,281	1,959	2,009	284	930	4,576	500	1,049	487	118	2,311
7,053	1,953	2,691	487	869	4,574	368	979	634	106	1,974
388	67	281	...	5	156	106	24	...	...	23
883	133	478	207	21	1,036	32	118	285	11	167
268	27	229	3	2	123	...	9	7	...	102
4,248	1,360	1,410	254	471	2,754	219	629	309	91	1,454
1,266	366	293	23	370	505	11	199	33	4	228
475,221	149,789	139,843	6,567	92,822	243,760	15,636	75,296	56,026	14,064	69,324
120	135	93	64	148	70	56	80	69	68	69
425,534	136,432	122,838	4,845	81,811	158,446	10,239	47,111	30,639	9,874	52,366
49,687	13,357	17,005	1,722	11,011	85,314	5,397	28,185	25,387	4,190	16,958
3,422	346	1,167	...	903	2,373	200	2,173	...	...	...
964	307	326	19	139	780	111	198	100	21	178
...	...	...	...	...	13	6	4	3	...	...
303	98	99	4	43	157	12	55	21	5	58
60	1	17	9	33	574	90	...	...	...	...
34	7	12	1	10	92	2	30	26	4	22
4	1	1	...	1	...	...	...	...	...	...
967	512	24	32	287	11,498	1	411	969	388	9,582
0.24	0.46	0.02	0.31	0.46	3.31	(29)	0.44	1.20	1.87	9.59

Table 3B.—DETAILED STATISTICS FOR THE CRUSHED AND BROKEN STONE INDUSTRIES

(For explanation of column

	Item	Crushed and broken limestone industry—Continued					
		East South Central		West South Central			
		Total ⁵	Tennessee	Total	Arkansas	Oklahoma	Texas
1	Number of operating companies.....	136	57	41	6	16	19
2	Number of establishments.....	176	76	47	6	19	22
3	Number of quarries.....	175	75	47	6	19	22
4	Number of preparation plants.....	171	73	44	5	19	20
5	Net shipments of crushed and broken stone ^{26 27}.....1,000 short tons..	23,970	9,533	11,909	780	5,149	5,980
6	Value of shipments, total.....\$1,000..	33,686	12,657	15,168	794	5,975	8,399
7	Crushed and broken stone ²⁷.....do....	33,050	12,455	13,091	794	5,910	6,387
8	Other products and services.....do....	636	202	2,077	...	65	2,012
9	Value added in mining.....do....	23,639	8,657	10,507	574	4,505	5,428
10	Number of persons engaged, total.....	3,560	1,305	1,437	103	627	707
11	Production and development workers.....	3,083	1,110	1,269	83	561	625
12	All other employees.....	350	133	146	18	60	68
13	Proprietors and firm members.....	127	62	22	2	6	14
14	Performing manual labor.....	37	20	7	...	3	4
15	Man-hours worked by production and development workers, total.....1,000..	6,711	2,481	3,099	160	1,437	1,502
16	At mines, total.....do....	3,733	1,204	1,692	112	880	700
17	Underground.....do....	950	160	...	...	...	...
18	Open quarry.....do....	2,246	940	1,302	101	739	462
19	Surface (including mine shops and yards).....do....	537	104	390	11	141	238
20	At preparation plants.....do....	2,978	1,277	1,407	48	557	802
21	Man-hours spent in development and exploration work (included above).....do....	18	8	33	12	14	7
22	Tons of crushed and broken stone per man-hour.....	3.57	3.84	3.84	4.88	3.58	3.98
23	Principal expenses designated below, total.....\$1,000..	19,782	7,070	9,271	401	3,576	5,294
24	Wages of production and development workers.....do....	8,953	3,049	4,214	222	1,951	2,041
25	Salaries of all other employees.....do....	1,564	618	594	54	208	332
26	Stone received for preparation.....do....	6,092	2,215	3,328	72	972	2,284
27	Supplies.....do....	1,390	603	510	24	186	300
28	Fuel.....do....	1,135	319	388	26	198	164
29	Purchased electric energy.....do....	648	266	237	3	61	173
30	Contract work.....do....	3,697	1,953	1,654	162	820	672
31	Purchased machinery installed.....do....	2,915	1,356	1,456	67	767	622
32	Capital expenditures, total.....do....	6	...	27	...	12	15
33	Development and exploration of mineral property.....do....	277	98	232	...	187	45
34	Preparation plant construction.....do....	130	52	13	...	10	3
35	Other construction.....do....	2,106	921	1,163	66	543	554
36	New machinery and equipment.....do....	396	285	21	1	15	5
37	Used plant and equipment.....do....	245,401	100,237	87,777	6,882	33,690	47,205
38	Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	80	90	69	83	60	76
39	Per production worker.....	163,587	68,862	60,447	5,301	21,982	33,164
40	Prime movers.....	81,814	31,375	27,330	1,581	11,708	14,041
41	Electric motors driven by purchased energy.....	3,576	2,401	1,330	...	985	345
42	Horsepower rating of electric motors driven by energy generated and used at the same establishment.....	551	215	262	8	113	141
43	Energy used.....million kwh equivalent..	4	3	...	...	...	...
44	Bituminous coal.....1,000 short tons..	105	41	40	2	13	25
45	Fuel oils.....1,000 barrels..	133	...	322	...	153	169
46	Gas (natural and manufactured).....million cu. ft..	88	26	33	2	16	15
47	Electric energy purchased.....million kwh..	4	3	3	...	1	2
48	Electric energy generated and used.....do....	5,082	4,388	337	110	66	161
49	Water intake, including mine water used.....million gallons..	1.65	3.95	0.27	1.33	0.12	0.26
50	Per production worker.....do....						

See footnotes at end of table.

CRUSHED AND BROKEN STONE

14D-19

BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued
 captions, see INTRODUCTION)

Crushed and broken limestone industry—Continued							
Mountain				Pacific			
Total ⁶	Montana	Colorado	Utah	Total	Washington	Oregon	California
24	3	4	7	34	9	5	20
27	3	7	7	37	10	5	22
26	3	6	7	35	9	4	22
23	3	7	6	33	10	5	18
2,690	179	424	745	3,703	335	169	3,199
4,386	277	1,127	889	6,663	933	282	5,448
4,382	277	1,123	889	6,446	933	282	5,231
4	...	4	...	217	...	...	217
3,207	106	844	702	5,055	723	223	4,109
380	14	81	121	465	80	30	355
304	10	71	81	398	61	26	311
64	3	4	36	38	6	...	32
12	1	6	4	29	13	4	12
7	...	4	3	15	10	1	4
612	21	126	175	800	111	49	640
402	10	73	122	499	70	10	419
86	...	10	...	42	...	...	42
251	10	52	84	413	64	10	339
65	...	11	38	44	6	...	38
210	11	53	53	301	41	39	221
7	...	...	5	5	...	...	5
4.40	8.52	3.37	4.26	4.63	3.02	3.45	5.00
2,541	218	527	621	3,555	460	167	2,928
1,142	39	214	319	1,607	232	109	1,266
210	8	30	95	189	17	...	172
758	{ 55 }	221	{ 144 }	1,340	164	23	{ 1,153 }
92	4	14	32	150	29	7	114
83	3	17	31	109	18	4	87
256	109	31	...	160	...	24	136
103	...	31	15	965	28	403	534
113	...	31	35	1,116	29	402	685
7	...	...	7	54	2	...	52
...	...	...	...	391	...	317	74
13	...	...	13	57	...	...	57
92	...	31	14	368	8	19	341
1	...	...	1	246	19	66	161
30,887	1,960	6,824	10,489	25,453	7,229	955	17,269
102	196	96	129	64	119	37	56
24,787	1,263	5,672	8,609	17,931	5,605	815	11,511
6,100	697	1,152	1,880	7,522	1,624	140	5,758
165	...	...	...	600	...	...	600
29	1	4	11	52	9	3	40
...
7	...	1	3	12	2	1	9
...
5	...	1	2	7	1	...	6
...	...	...	...	1	...	...	1
28	...	2	4	107	24	...	83
0.09	...	0.03	0.05	0.27	0.39	...	0.27

Table 3B.—DETAILED STATISTICS FOR THE CRUSHED AND BROKEN STONE INDUSTRIES

(For explanation of column

	Item	Crushed and broken granite industry				
		United States, total	New England		Middle Atlantic (New Jersey)	North Central ⁸
			Total ⁷	Massachusetts		
1	Number of operating companies.....	75	9	4	4	5
2	Number of establishments.....	101	9	4	4	5
3	Number of quarries.....	99	8	4	4	4
4	Number of preparation plants.....	88	9	4	4	4
5	Net shipments of crushed and broken stone ^{26 27} ...1,000 short tons..	21,693	923	666	400	553
6	Value of shipments, total.....\$1,000..	30,875	1,523	1,089	1,177	839
7	Crushed and broken stone ²⁷.....do....	30,016	1,504	1,070	729	797
8	Other products and services.....do....	859	19	19	448	42
9	Value added in mining.....do....	22,201	1,056	688	1,065	283
10	Number of persons engaged, total.....	2,605	140	84	45	50
11	Production and development workers.....	2,344	121	69	44	38
12	All other employees.....	206	17	15	...	7
13	Proprietors and firm members.....	55	2	...	1	5
14	Performing manual labor.....	24	2	...	1	2
15	Man-hours worked by production and development workers, total.....1,000..	5,607	280	157	124	90
16	At mines, total.....do....	3,001	143	85	24	33
17	Underground.....do....	3	...	...	...	...
18	Open quarry.....do....	2,543	138	80	24	33
19	Surface (including mine shops and yards).....do....	455	5	5	...	...
20	At preparation plants.....do....	2,606	137	72	100	57
21	Man-hours spent in development and exploration work (included above).....do....	473	...	...	...	...
22	Tons of crushed and broken stone per man hour.....	3.87	3.30	4.24	3.23	6.14
23	Principal expenses designated below, total.....\$1,000..	17,699	1,043	698	382	760
24	Wages of production and development workers.....do....	7,573	521	311	271	160
25	Salaries of all other employees.....do....	1,306	73	67	...	45
26	Stone received for preparation.....do....	6,506	345	241	...	28519
27	Supplies.....do....	747	40	22	59	12
28	Fuel.....do....	838	49	43	28	24
29	Purchased electric energy.....do....	729	15	14	...	(28)
30	Contract work.....do....	3,041	342	280	5	4
31	Purchased machinery installed.....do....	3,187	324	199	4	3
32	Capital expenditures, total.....do....	13	4	...	...	...
33	Development and exploration of mineral property.....do....	742	72	38	2	...
34	Preparation plant construction.....do....	102	...	...	...	...
35	Other construction.....do....	1,841	219	161	2	1
36	New machinery and equipment.....do....	489	29	...	...	2
37	Used plant and equipment.....do....	168,556	10,519	7,909	11,004	4,349
38	Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	72	87	115	250	114
39	Per production worker.....	105,788	4,317	3,527	9,325	2,724
40	Prime movers.....	62,768	6,202	4,382	1,679	1,625
41	Electric motors driven by purchased energy.....	627	...	...	...	...
42	Horsepower rating of electric motors driven by energy generated and used at the same establishment.....	282	13	7	8	4
43	Energy used.....million kwh equivalent..	1	...	...	...	...
44	Bituminous coal.....1,000 short tons..	80	3	1	2	1
45	Fuel oils.....1,000 barrels..	4	...	...	...	...
46	Gas (natural and manufactured).....million cu. ft..	60	2	2	1	1
47	Electric energy purchased.....million kwh..	1	...	...	...	...
48	Electric energy generated and used.....do....	3,215	10	8	5	84
49	Water intake, including mine water used.....million gallons..	1.37	0.08	0.12	0.11	2.21
50	Per production worker.....do....					

See footnotes at end of table.

CRUSHED AND BROKEN STONE

14D-21

BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued
 captions, see INTRODUCTION)

Crushed and broken granite industry—Continued								
South					Mountain ¹⁰	Pacific		
Total ⁹	Virginia	North Carolina	South Carolina	Georgia		Total ¹¹	California	
39	6	12	5	11	8	27	22	1
47	6	19	5	12	8	28	22	2
47	6	19	5	12	8	28	22	3
46	6	19	5	12	5	20	17	4
15,329	1,521	6,426	2,227	3,220	1,107	3,381	3,296	5
22,988	2,130	9,170	3,168	6,049	808	3,540	3,361	6
22,698	2,130	9,151	3,168	5,860	805	3,483	3,310	7
290	...	19	...	189	3	57	51	8
16,262	1,452	6,432	2,167	4,201	619	2,916	2,823	9
2,010	198	715	322	508	62	298	276	10
1,854	187	666	287	457	59	228	209	11
137	8	37	33	50	...	45	44	12
19	3	12	2	1	3	25	23	13
5	...	3	2	...	1	13	11	14
4,537	441	1,696	724	1,068	105	471	445	15
2,440	205	1,037	264	571	46	315	300	16
...	...	...	...	...	...	3	3	17
2,121	205	958	193	457	46	181	166	18
319	...	79	71	114	...	131	131	19
2,097	236	659	460	497	59	156	145	20
473	...	...	...	...	...	...	...	21
3.38	3.45	3.79	3.08	3.01	10.54	7.18	7.41	22
13,254	1,240	4,882	2,009	3,684	445	1,815	1,681	23
5,355	475	1,995	716	1,305	256	1,010	966	24
958	42	295	228	349	...	230	226	25
...	...	...	...	...	...	...	...	26
5,590	533	2,131	824	1,727	28,135	301	290	27
551	73	170	102	137	31	89	86	28
644	78	224	133	153	23	70	67	29
156	39	67	6	13	(28)	115	46	30
2,385	184	873	191	764	48	257	242	31
2,600	229	727	255	946	48	208	193	32
1	...	...	...	1	...	8	8	33
662	24	48	83	175	...	6	6	34
80	...	...	62	18	...	22	22	35
1,495	200	636	109	449	9	115	100	36
362	5	43	1	303	39	57	57	37
112,190	14,651	38,111	19,541	25,243	8,044	22,450	21,463	38
61	78	57	68	55	136	98	103	39
67,843	9,751	25,629	8,900	14,307	7,144	14,435	13,598	40
44,347	4,900	12,482	10,641	10,936	900	8,015	7,865	41
627	...	100	...	527	...	...	...	42
216	28	66	39	57	12	29	29	43
1	...	...	...	1	...	...	...	44
63	12	21	8	14	3	8	8	45
4	...	...	...	...	...	...	...	46
49	5	16	12	12	3	4	4	47
1	...	...	...	1	...	...	...	48
3,027	439	1,098	533	754	...	89	89	49
1.63	2.35	1.65	1.86	1.65	...	0.39	0.43	50

Table 3B.—DETAILED STATISTICS FOR THE CRUSHED AND BROKEN STONE INDUSTRIES

(For explanation of column

	Item	Crushed and broken slate industry, United States ¹²	Crushed and broken marble industry		
			United States, total	East and South ¹³	West ¹⁴
1	Number of operating companies.....	6	14	9	5
2	Number of establishments.....	11	18	10	8
3	Number of quarries.....	11	17	9	8
4	Number of preparation plants.....	11	16	10	6
5	Net shipments of crushed and broken stone ^{26 27}....1,000 short tons..	928	469	449	20
6	Value of shipments, total.....\$1,000..	8,162	5,142	4,801	341
7	Crushed and broken stone ²⁷.....do....	8,162	4,545	4,255	290
8	Other products and services.....do....	...	597	546	51
9	Value added in mining.....do....	5,055	3,661	3,377	284
10	Number of persons engaged, total.....	535	433	377	56
11	Production and development workers.....	464	379	330	49
12	All other employees.....	69	52	46	6
13	Proprietors and firm members.....	2	2	1	1
14	Performing manual labor.....	...	2	1	1
15	Man-hours worked by production and development workers, total.....1,000..	1,198	796	709	87
16	At mines, total.....do....	259	237	192	45
17	Underground.....do....	...	104	104	...
18	Open quarry.....do....	259	108	63	45
19	Surface (including mine shops and yards).....do....	...	25	25	...
20	At preparation plants.....do....	939	559	517	42
21	Man-hours spent in development and exploration work (included above).....do....	...	12	9	3
22	Tons of crushed and broken stone per man-hour.....	0.77	0.59	0.63	0.23
23	Principal expenses designated below, total.....\$1,000..	5,484	3,008	2,746	262
24	Wages of production and development workers.....do....	1,949	1,120	950	170
25	Salaries of all other employees.....do....	420	249	230	19
26	Stone received for preparation.....do....	2,045	1,268	1,208	...
27	Supplies.....do....	...	...	...	60
28	Fuel.....do....	610	86	78	8
29	Purchased electric energy.....do....	336	117	113	4
30	Contract work.....do....	124	168	167	1
31	Purchased machinery installed.....do....	304	196	187	9
32	Capital expenditures, total.....do....	312	354	329	25
33	Development and exploration of mineral property.....do....	...	10	...	10
34	Preparation plant construction.....do....	14	126	119	7
35	Other construction.....do....	21	28	28	...
36	New machinery and equipment.....do....	277	186	182	4
37	Used plant and equipment.....do....	...	4	...	4
38	Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	25,924	12,887	9,923	2,964
39	Per production worker.....	56	34	30	60
40	Prime movers.....	4,844	6,864	4,031	2,833
41	Electric motors driven by purchased energy.....	21,080	6,023	5,892	131
42	Horsepower rating of electric motors driven by energy generated and used at the same establishment.....	...	...	...	...
43	Energy used.....million kwh equivalent..	498	54	53	1
44	Bituminous coal.....1,000 short tons..	53	4	4	...
45	Fuel oils.....1,000 barrels..	33	1	1	...
46	Gas (natural and manufactured).....million cu. ft..	...	...	...	...
47	Electric energy purchased.....million kwh..	24	11	11	...
48	Electric energy generated and used.....do....	...	...	...	...
49	Water intake, including mine water used.....million gallons..	119	11	11	...
50	Per production worker.....do....	0.26	0.03	0.04	...

See footnotes at end of table.

CRUSHED AND BROKEN STONE

14D-23

BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

captions, see INTRODUCTION)

Crushed and broken trap rock industry										
United States, total	New England			Middle Atlantic				East North Central and South		Mountain ^{1c}
	Total	Massachusetts	Connecticut	Total	New York	New Jersey	Pennsylvania	Total ¹⁵	Maryland	
100	19	8	11	28	4	13	11	11	5	6
142	22	10	12	38	4	20	14	11	5	7
139	22	10	12	37	4	19	14	11	5	7
131	22	10	12	36	4	18	14	11	5	5
22,467	3,750	1,512	2,238	11,348	2,264	6,384	2,700	1,526	862	1,439
45,471	6,067	2,269	3,798	28,051	3,618	18,024	6,409	3,992	1,510	1,287
38,974	5,237	2,269	2,968	22,771	3,373	13,513	5,885	3,988	1,506	1,164
6,497	830	...	830	5,280	245	4,511	524	4	4	123
34,127	4,827	1,676	3,151	21,086	2,797	14,093	4,196	2,909	1,244	839
3,132	466	172	294	1,740	234	930	576	270	90	83
2,680	374	154	220	1,498	218	784	496	239	81	73
377	91	17	74	218	16	145	57	25	6	2
75	1	1	...	24	...	1	23	6	3	8
29	...	...	...	7	...	...	7	1	...	1
6,659	950	383	567	4,097	575	2,236	1,286	534	175	154
3,586	570	249	321	2,250	243	1,164	843	260	106	76
54	4	...	4	33	...	4	29	...	...	...
2,972	401	196	205	1,857	199	985	673	233	95	76
560	165	53	112	360	44	175	141	27	11	...
3,073	380	134	246	1,847	332	1,072	443	274	69	78
738	...	...	...	738	734	4	...	...	...	...
3.37	3.95	3.95	3.95	2.77	3.94	2.86	2.10	2.86	4.93	9.34
25,349	3,768	1,403	2,365	14,872	2,182	8,429	4,261	2,039	564	813
12,089	1,647	702	945	7,148	1,350	3,816	1,982	786	284	361
2,116	500	95	405	1,318	121	883	314	128	35	19
7,600	...	...	...	4,520	...	2,550	...	...	...	...
1,409	976	392	584	463	...	...	1,507	859	156	208
1,148	139	47	92	726	62	458	206	156	45	59
987	234	108	126	706	153	337	216	107	41	8
3,870	272	59	213	454	33	385	36	3	3	158
3,670	439	340	99	2,623	407	1,338	878	180	35	75
50	820	353	467	2,064	297	1,137	630	222	14	60
754	20	...	20	29	2	27	...	...	...	...
442	98	7	91	595	170	327	98	15	...	...
1,915	271	6	265	86	...	86	...	69	5	...
509	196	134	62	1,250	125	646	479	138	9	60
	235	206	29	104	...	51	53	...	...	...
216,615	34,429	15,592	18,837	101,064	14,967	49,294	36,803	21,405	11,369	8,704
81	92	101	86	67	69	63	74	90	140	119
141,143	18,492	8,304	10,188	57,904	8,910	27,335	21,659	14,423	8,354	7,197
75,472	15,937	7,288	8,649	43,160	6,057	21,959	15,144	6,982	3,015	1,507
673	...	...	...	96	96	...	...	...	...	116
507	50	16	34	281	24	171	86	59	20	16
6	...	...	...	6	...	5	1	...	...	...
114	13	1	12	46	3	15	28	24	7	8
9	...	...	...	2	2	...	...	...	...	...
60	9	4	5	38	8	20	10	6	2	...
1	...	...	...	...	...	...	...	...	...	...
1,101	156	57	99	792	425	227	140	1	1	1
0.41	0.42	0.37	0.45	0.53	1.95	0.29	0.28	(²⁹)	0.01	0.01

Table 3B.--DETAILED STATISTICS FOR THE CRUSHED AND BROKEN STONE INDUSTRIES

(For explanation of column

Item	Crushed and broken trap rock industry--Continued			
	Pacific			
	Total	Washington	Oregon	California
1 Number of operating companies.....	55	16	24	15
2 Number of establishments.....	64	19	30	15
3 Number of quarries.....	62	18	30	14
4 Number of preparation plants.....	57	18	25	14
5 Net shipments of crushed and broken stone ^{26 27} ....1,000 short tons..	4,404	1,743	1,501	1,160
6 Value of shipments, total.....\$1,000..	6,074	2,166	2,126	1,782
7 Crushed and broken stone ²⁷.....do....	5,814	2,122	2,075	1,617
8 Other products and services.....do....	260	44	51	165
9 Value added in mining.....do....	4,466	1,545	1,583	1,338
10 Number of persons engaged, total.....	573	211	198	164
11 Production and development workers.....	496	183	169	144
12 All other employees.....	41	17	12	12
13 Proprietors and firm members.....	36	11	17	8
14 Performing manual labor.....	20	6	11	3
15 Man-hours worked by production and development workers, total.....1,000..	924	307	318	299
16 At mines, total.....do....	430	156	129	145
17 Underground.....do....	17	17	...	...
18 Open quarry.....do....	405	139	127	139
19 Surface (including mine shops and yards).....do....	8	...	2	6
20 At preparation plants.....do....	494	151	189	154
21 Man-hours spent in development and exploration work (included above).....do....	...	...	...	...
22 Tons of crushed and broken stone per man hour.....	4.77	5.68	4.72	3.88
23 Principal expenses designated below, total.....\$1,000..	3,857	1,516	1,511	1,030
24 Wages of production and development workers.....do....	2,147	841	692	614
25 Salaries of all other employees.....do....	151	71	47	33
26 Stone received for preparation.....do....	...	...	...	...
27 Supplies.....do....	1,037	428	352	257
28 Fuel.....do....	329	125	132	72
29 Purchased electric energy.....do....	93	27	25	41
30 Contract work.....do....	100	24	63	13
31 Purchased machinery installed.....do....	553	213	195	145
32 Capital expenditures, total.....do....	504	196	224	84
33 Development and exploration of mineral property.....do....	1	...	1	...
34 Preparation plant construction.....do....	46	2	44	...
35 Other construction.....do....	16	2	14	...
36 New machinery and equipment.....do....	271	70	117	84
37 Used plant and equipment.....do....	170	122	48	...
38 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....1,000..	51,013	23,066	18,134	9,813
39 Per production worker.....	103	126	107	68
40 Prime movers.....1,000..	43,127	20,581	15,278	7,268
41 Electric motors driven by purchased energy.....do....	7,886	2,485	2,856	2,545
42 Horsepower rating of electric motors driven by energy generated and used at the same establishment.....do....	461	244	70	147
43 Energy used.....million kwh equivalent..	101	35	42	24
44 Bituminous coal.....1,000 short tons..	...	...	...	...
45 Fuel oils.....1,000 barrels..	23	7	13	3
46 Gas (natural and manufactured).....million cu. ft..	7	...	...	7
47 Electric energy purchased.....million kwh..	7	2	2	3
48 Electric energy generated and used.....do....	1	...	1	...
49 Water intake, including mine water used.....million gallons..	151	5	8	138
50 Per production worker.....do....	0.30	0.03	0.05	0.96

See footnotes at end of table.

BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

captions, see INTRODUCTION)

Crushed and broken sandstone industry													
United States, total	New England (Maine)	Middle Atlantic			North Central			South Atlantic ¹⁸	South Central ¹⁹	West			
		Total	New York	Pennsylvania	Total ¹⁷	Ohio	South Dakota			Total ²⁰	Montana	California	
60	4	26	3	23	16	4	4	4	6	25	4	11	1
87	4	28	3	25	16	4	4	7	6	26	4	11	2
86	4	28	3	25	15	4	3	9	6	24	4	11	3
74	4	25	3	22	14	4	4	7	6	18	3	11	4
9,573	251	1,441	478	963	1,948	376	736	2,924	467	2,542	334	1,461	5
31,190	570	3,981	717	3,264	16,387	2,061	1,716	4,906	700	4,646	315	3,611	6
28,351	569	3,737	717	3,020	15,155	2,036	1,443	4,898	700	3,292	314	2,321	7
2,839	1	244	...	244	1,232	25	273	8	...	1,354	1	1,290	8
22,913	505	2,835	514	2,321	11,788	1,442	809	3,686	507	3,592	27	2,998	9
1,757	90	452	65	387	617	129	92	206	93	299	7	215	10
1,529	89	383	55	328	526	111	85	185	85	261	5	187	11
182	1	47	8	39	90	18	7	16	3	25	1	23	12
46	...	22	2	20	1	...	...	5	5	13	1	5	13
23	...	15	...	15	1	...	...	...	...	7	...	2	14
3,283	184	743	150	593	1,122	245	222	480	164	590	9	416	15
1,751	55	452	57	395	565	81	122	257	85	337	3	312	16
18	...	18	...	18	...	...	...	...	...	...	...	...	17
1,452	55	404	55	349	491	81	72	235	85	182	3	157	18
281	...	30	2	28	74	...	50	22	...	155	...	155	19
1,532	129	291	93	198	557	164	100	223	79	253	6	104	20
69	...	12	...	12	4	2	...	27	22	4	...	...	21
2.92	1.36	1.94	3.19	1.62	1.74	1.53	3.32	6.09	2.85	4.31	37.11	3.51	22
15,859	369	2,486	413	2,073	8,270	1,203	1,164	1,852	453	2,429	315	1,638	23
5,970	289	1,189	249	940	2,143	434	365	805	241	1,303	21	938	24
1,084	3	203	34	169	557	147	24	121	17	183	6	174	25
6,636	...	...	...	...	4,701	...	669	...	...	...	...	...	26
52	598	69	529	...	...	371	...	736	143	406	18	306	27
890	14	191	20	171	435	96	53	101	19	130	3	107	28
542	6	101	39	62	343	95	53	27	9	56	1	50	29
737	5	204	2	202	91	60	...	62	24	351	266	63	30
4,096	41	270	142	128	2,468	49	253	692	76	549	1	460	31
4,624	53	218	69	149	3,439	52	121	398	78	438	1	373	32
6	...	2	...	2	...	...	...	3	...	1	...	1	33
1,712	20	30	8	22	1,595	4	...	42	1	24	...	24	34
60	...	24	...	24	15	1	...	...	...	21	...	21	35
2,701	26	160	61	99	1,820	38	121	235	70	390	...	326	36
145	7	2	...	2	9	9	...	118	7	2	1	1	37
107,948	3,645	24,706	6,005	18,701	31,292	8,042	9,986	12,305	2,056	33,944	1,824	25,903	38
71	41	65	109	57	59	72	117	67	24	130	365	139	39
73,375	3,065	16,671	3,453	13,218	14,100	3,207	5,676	9,992	1,671	27,876	1,169	20,790	40
34,573	580	8,035	2,552	5,483	17,192	4,835	4,310	2,313	385	6,068	655	5,113	41
855	...	45	...	45	120	...	...	450	...	240	...	240	42
393	3	57	6	51	231	72	19	35	7	60	1	54	43
5	...	...	...	...	5	5	...	...	...	...	...	...	44
119	1	11	...	11	76	4	5	14	2	15	...	13	45
134	...	...	...	...	79	79	...	...	...	55	...	55	46
28	...	4	2	2	20	1	3	1	...	3	...	3	47
1	...	...	...	...	...	...	...	1	...	...	...	...	48
1,420	...	203	57	146	825	482	147	277	91	24	...	23	49
0.93	...	0.53	1.04	0.45	1.57	4.34	1.73	1.50	1.07	0.09	...	0.12	50

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 3B.—DETAILED STATISTICS FOR THE CRUSHED AND BROKEN STONE INDUSTRIES BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

(For explanation of column captions, see INTRODUCTION)

Item	Crushed and broken stone, n.e.c., industry						
	United States, total	East ²¹	South Atlantic ²²	South Central ²³	Mountain ²⁴	Pacific	
						Total ²⁵	California
Number of operating companies.....	83	25	13	12	12	30	19
Number of establishments.....	95	25	13	13	14	30	19
Number of quarries.....	87	22	13	8	14	30	19
Number of preparation plants.....	79	22	10	12	10	25	16
Net shipments of crushed and broken stone ^{26 27}.....1,000 short tons..	6,889	1,637	615	2,057	446	2,134	1,530
Value of shipments, total.....\$1,000..	15,657	1,261	1,355	6,481	479	6,081	5,408
Crushed and broken stone ²⁷.....do....	14,849	1,183	1,318	6,476	471	5,401	4,729
Other products and services.....do....	808	78	37	5	8	680	679
Value added in mining.....do....	10,050	838	1,060	3,823	190	4,139	3,586
Number of persons engaged, total.....	946	166	112	237	74	357	286
Production and development workers.....do....	803	142	95	202	62	302	244
All other employees.....do....	79	7	7	25	4	36	34
Proprietors and firm members.....do....	64	17	10	10	8	19	8
Performing manual labor.....do....	27	4	2	7	5	9	7
Man-hours worked by production and development workers, total.....1,000..	1,681	323	199	454	93	612	499
At mines, total.....do....	848	130	93	218	36	371	328
Underground.....do....	13	...	11	...	...	2	...
Open quarry.....do....	720	127	74	207	35	277	236
Surface (including mine shops and yards).....do....	115	3	8	11	1	92	92
At preparation plants.....do....	833	193	106	236	57	241	171
Man-hours spent in development and exploration work (included above).....do....	8	3	...	3	...	2	2
Tons of crushed and broken stone per man-hour.....do....	4.10	5.07	3.09	4.53	4.80	3.49	3.07
Principal expenses designated below, total.....\$1,000..	9,360	929	575	3,680	494	3,682	3,270
Wages of production and development workers.....do....	3,083	478	241	747	194	1,423	1,136
Salaries of all other employees.....do....	419	13	47	130	19	210	200
Stone received for preparation.....do....	...	...	...	...	...	...	...
Supplies.....do....	4,646	189	196	2,605	62	1,594	1,518
Fuel.....do....	395	47	56	81	48	163	129
Purchased electric energy.....do....	213	29	21	94	2	67	62
Contract work.....do....	604	173	14	23	169	225	225
Purchased machinery installed.....do....	572	48	49	113	49	313	302
Capital expenditures, total.....do....	823	63	41	258	41	420	414
Development and exploration of mineral property.....do....	78	14	...	34	2	28	26
Preparation plant construction.....do....	214	19	...	124	1	70	70
Other construction.....do....	41	...	4	33	4	...	...
New machinery and equipment.....do....	243	25	33	67	33	85	83
Used plant and equipment.....do....	247	5	4	...	1	237	235
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....1,000..	63,152	7,191	4,955	11,255	5,711	34,040	28,630
Per production worker.....do....	79	51	52	56	92	113	117
Prime movers.....do....	48,833	5,662	3,165	6,290	5,589	28,127	23,527
Electric motors driven by purchased energy.....do....	14,319	1,529	1,790	4,965	122	5,913	5,103
Horsepower rating of electric motors driven by energy generated and used at the same establishment.....do....	940	...	...	...	875	65	65
Energy used.....million kwh equivalent..	193	9	22	77	13	72	63
Bituminous coal.....1,000 short tons..	...	...	...	...	...	...	...
Fuel oils.....1,000 barrels..	23	...	10	2	2	9	7
Gas (natural and manufactured).....million cu. ft..	278	...	...	181	...	97	97
Electric energy purchased.....million kwh..	15	...	1	9	...	5	5
Electric energy generated and used.....do....	1	...	...	...	1	...	...
Water intake, including mine water used.....million gallons..	443	253	9	114	...	67	10
Per production worker.....do....	0.55	1.78	0.09	0.57	...	0.22	0.04

¹Maine, 1 establishment; Vermont, 3; Massachusetts, 3; Rhode Island, 1; and Connecticut, 3. ²In addition to Pennsylvania, New York, 48 establishments; and New Jersey, 4. ³In addition to the States shown, Minnesota, 26 establishments; and Nebraska, 23. ⁴In addition to the States shown, South Carolina, 2 establishments; and Georgia, 9. ⁵In addition to Tennessee, Kentucky, 83 establishments; Alabama, 16; and Mississippi, 1. ⁶In addition to the States shown, Idaho, 1 establishment; Wyoming, 4; New Mexico, 1; Arizona, 1; and Nevada, 3. ⁷In addition to Massachusetts, Maine, 3 establishments; Rhode Island, 1; and Connecticut, 1. ⁸Michigan, 1 establishment; Wisconsin, 1; Minnesota, 2; and Missouri, 1. ⁹In addition to the States shown, Delaware, 1 establishment; Maryland, 2; Tennessee, 1; and Arkansas, 1. ¹⁰Montana, 3 establishments; Wyoming, 1; Arizona, 3; and Nevada, 1. ¹¹In addition to California, Washington, 5 establishments, and Oregon, 1. ¹²Vermont, 1 establishment; New York, 1; Pennsylvania, 2; Maryland, 1; Virginia, 3; North Carolina, 1; Georgia, 1; and Arkansas, 1. ¹³New York, 1 establishment; New Jersey, 1; Maryland, 1; Virginia, 1; Georgia, 3; Tennessee, 2; and Texas, 1. ¹⁴Colorado, 1 establishment; Arizona, 1; Washington, 5; and California, 1. ¹⁵In addition to Maryland, Wisconsin, 2 establishments; Virginia, 3; and Texas, 1. ¹⁶Montana, 1 establishment; Idaho, 5; and Nevada, 1. ¹⁷In addition to the States shown, Illinois, 1 establishment; Wisconsin, 6; and Kansas, 1. ¹⁸Virginia, 1 establishment; West Virginia, 5; and Georgia, 1. ¹⁹Kentucky, 1 establishment; Tennessee, 1; Alabama, 2; Arkansas, 1; and Texas, 1. ²⁰In addition to the States shown, Idaho, 1 establishment; Wyoming, 1; Colorado, 3; New Mexico, 1; Utah, 3; and Oregon, 2. ²¹Maine, 1 establishment; Massachusetts, 2; Rhode Island, 1; New York, 1; Pennsylvania, 7; Ohio, 1; Indiana, 2; Illinois, 2; Wisconsin, 1; Iowa, 2; Missouri, 3; and Kansas, 2. ²²Virginia, 3 establishments; West Virginia, 2; North Carolina, 2; South Carolina, 2; and Florida, 4. ²³Tennessee, 3 establishments; Arkansas, 1; Oklahoma, 5; and Texas, 4. ²⁴Montana, 4 establishments; Idaho, 2; Wyoming, 1; Colorado, 2; Arizona, 2; Utah, 1; and Nevada, 2. ²⁵In addition to California, Washington, 6 establishments; and Oregon, 5. ²⁶See table 1, footnote 5. ²⁷See table 1, footnote 6. ²⁸The cost of contract work is included with the cost of supplies. ²⁹Less than 5,000 gallons.

CRUSHED AND BROKEN STONE

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Table 4.—GENERAL STATISTICS FOR THE CRUSHED AND BROKEN STONE INDUSTRIES IN THE UNITED STATES BY TYPE OF OPERATION: 1954

(For explanation of line captions, see INTRODUCTION)

Item	Crushed and broken limestone industry						
	All types of establish- ments	Producing establishments					
		Total	By type of quarry, mine, or plant				
			Open quarries	Combination open quarries and underground mines	Underground mines	Type of quarry or mine not specified	Separately operated preparation plants
Number of operating companies.....	1,174	1,168	1,066	9	52	24	17
Number of establishments.....	1,447	1,441	1,314	15	69	24	19
Number of quarries.....	1,443	1,437	1,329	15	69	24	...
Number of preparation plants.....	1,362	1,356	1,229	15	69	24	19
Value of shipments.....\$1,000..	328,757	328,757	292,624	4,263	24,799	1,619	5,452
Value added in mining.....do....	239,604	239,564	215,028	3,272	17,761	935	2,568
Number of persons engaged, total.....	² 29,257	29,127	25,104	449	3,060	222	292
Production and development workers.....	24,925	24,917	21,342	387	2,770	182	236
All other employees.....do....	² 3,315	3,194	2,824	53	264	9	44
Proprietors and firm members.....	1,017	1,016	938	9	26	31	12
Performing manual labor.....	490	489	449	8	15	7	10
Man-hours worked by production and develop- ment workers.....1,000..	56,335	56,322	49,255	887	5,243	360	577
Wages and salaries, total.....\$1,000..	² 107,818	106,884	92,846	1,600	10,721	630	1,087
Wages of production and development workers.....do....	90,715	90,695	78,758	1,271	9,234	558	874
Salaries of all other employees.....do....	² 17,103	16,189	14,088	329	1,487	72	213
New capital expenditures.....do....	28,010	27,953	26,018	354	1,181	227	173
Crushed and broken limestone industry—Continued							
Producing establishments—Continued						Nonproducing establishments	
By principal preparation method							
No preparation	Crushing and pulverizing	Screening	All other ¹				
Number of operating companies.....	74	497	11	586	6		
Number of establishments.....	85	606	11	739	6		
Number of quarries.....	85	602	11	739	6		
Number of preparation plants.....	...	606	11	739	6		
Value of shipments.....\$1,000..	4,644	133,481	4,232	186,400	...		
Value added in mining.....do....	3,261	97,007	3,391	135,905	40		
Number of persons engaged, total.....	461	12,301	255	16,110	13		
Production and development workers.....	362	10,587	202	13,766	8		
All other employees.....do....	39	1,242	42	1,871	4		
Proprietors and firm members.....	60	472	11	473	1		
Performing manual labor.....	34	241	6	208	1		
Man-hours worked by production and develop- ment workers.....1,000..	728	22,663	495	32,436	13		
Wages and salaries, total.....\$1,000..	1,364	43,736	1,259	60,525	30		
Wages of production and development workers.....do....	1,208	37,754	1,011	50,722	20		
Salaries of all other employees.....do....	156	5,982	248	9,803	10		
New capital expenditures.....do....	291	10,814	248	16,600	57		
Crushed and broken granite industry							
All types of establishments	By type of quarry, mine, or plant		By principal preparation method				
	Open quarries	All other ³	No preparation	Crushing	All other ¹		
Number of operating companies.....	75	65	10	10	25	40	
Number of establishments.....	101	90	11	13	29	59	
Number of quarries.....	99	90	9	13	29	57	
Number of preparation plants.....	88	78	10	...	29	59	
Value of shipments.....\$1,000..	30,875	29,609	1,266	1,353	8,530	20,992	
Value added in mining.....do....	22,201	21,215	1,007	674	6,530	15,018	
Number of persons engaged, total.....	2,605	2,501	104	96	705	1,804	
Production and development workers.....	2,344	2,247	97	85	619	1,640	
All other employees.....do....	206	203	3	1	66	139	
Proprietors and firm members.....	55	51	4	10	20	25	
Performing manual labor.....	24	23	1	5	7	12	
Man-hours worked by production and develop- ment workers.....1,000..	5,607	5,389	218	157	1,549	3,901	
Wages and salaries, total.....\$1,000..	8,879	8,394	485	342	2,710	5,827	
Wages of production and development workers.....do....	7,573	7,117	456	338	2,272	4,963	
Salaries of all other employees.....do....	1,306	1,277	29	4	438	864	
New capital expenditures.....do....	2,698	2,647	51	65	716	1,917	

See footnotes at end of table.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 4.—GENERAL STATISTICS FOR THE CRUSHED AND BROKEN STONE INDUSTRIES IN THE UNITED STATES BY TYPE OF OPERATION: 1954—Continued
(For explanation of line captions, see INTRODUCTION)

Item	Crushed and broken slate industry (all types of establishments ⁴)	Crushed and broken marble industry				
		All types of establishments ⁵	By principal preparation method			
			Crushing	All other ⁶		
Number of operating companies.....	6	14	6	8		
Number of establishments.....	11	18	9	9		
Number of quarries.....	11	17	8	9		
Number of preparation plants.....	11	16	9	7		
Value of shipments.....\$1,000..	8,162	5,142	4,485	657		
Value added in mining.....do....	5,055	3,661	3,030	631		
Number of persons engaged, total.....	535	433	332	101		
Production and development workers.....	464	379	293	86		
All other employees.....	69	52	39	13		
Proprietors and firm members.....	2	2	...	2		
Performing manual labor.....	...	2	...	2		
Man-hours worked by production and develop- ment workers.....1,000..	1,198	796	655	141		
Wages and salaries, total.....\$1,000..	2,369	1,369	1,045	324		
Wages of production and development workers.....do....	1,949	1,120	847	273		
Salaries of all other employees.....do....	420	249	198	51		
New capital expenditures.....do....	312	350	144	206		
Crushed and broken trap rock industry						
	All types of establishments	By type of quarry, mine, or plant		By principal preparation method		
		Open quarries	All other ⁷	No preparation	Crushing and pulverizing	All other ¹
Number of operating companies.....	100	91	9	4	50	46
Number of establishments.....	142	132	10	11	66	65
Number of quarries.....	139	132	7	11	64	64
Number of preparation plants.....	131	123	8	...	66	65
Value of shipments.....\$1,000..	45,471	42,746	2,725	248	20,775	24,448
Value added in mining.....do....	34,127	32,723	1,404	156	15,488	18,483
Number of persons engaged, total.....	⁸ 3,132	2,914	147	17	1,551	1,493
Production and development workers.....	2,680	2,547	133	17	1,390	1,273
All other employees.....	⁸ 377	298	8	...	118	188
Proprietors and firm members.....	75	69	6	...	43	32
Performing manual labor.....	29	27	2	...	14	15
Man-hours worked by production and develop- ment workers.....1,000..	6,659	6,304	355	24	3,577	3,058
Wages and salaries, total.....\$1,000..	⁸ 14,205	13,063	626	55	6,930	6,704
Wages of production and development workers.....do....	12,089	11,502	587	55	6,316	5,718
Salaries of all other employees.....do....	⁸ 2,116	1,561	39	...	614	986
New capital expenditures.....do....	3,161	2,793	368	45	1,495	1,621
Crushed and broken sandstone industry						
	All types of establishments	By type of quarry, mine, or plant		By principal preparation method		
		Open quarries	All other ⁹	No preparation	Crushing	All other ¹
Number of operating companies.....	60	50	11	10	23	27
Number of establishments.....	87	75	12	13	32	42
Number of quarries.....	86	78	8	13	32	41
Number of preparation plants.....	74	63	11	...	32	42
Value of shipments.....\$1,000..	31,190	30,513	677	450	6,892	23,848
Value added in mining.....do....	22,913	22,391	522	332	5,281	17,300
Number of persons engaged, total.....	1,761	1,665	96	75	509	1,177
Production and development workers.....	1,529	1,447	82	65	450	1,014
All other employees.....	182	181	1	4	38	140
Proprietors and firm members.....	50	37	13	6	21	23
Performing manual labor.....	27	19	8	4	6	17
Man-hours worked by production and develop- ment workers.....1,000..	3,283	3,098	185	95	948	2,240
Wages and salaries, total.....\$1,000..	7,054	6,693	361	209	1,884	4,961
Wages of production and development workers.....do....	5,970	5,612	358	190	1,700	4,080
Salaries of all other employees.....do....	1,084	1,081	3	19	184	881
New capital expenditures.....do....	4,479	4,433	46	39	560	3,880

CRUSHED AND BROKEN STONE

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Table 4.—GENERAL STATISTICS FOR THE CRUSHED AND BROKEN STONE INDUSTRIES IN THE UNITED STATES BY TYPE OF OPERATION: 1954—Continued

(For explanation of line captions, see INTRODUCTION)

Item	Crushed and broken stone, n.e.c., industry							
	All types of establishments	By type of quarry, mine, or plant			By principal preparation method			
		Open quarries	Waste dump (chat) operations	All other ¹⁰	No preparation	Crushing	Screening	All other ¹
Number of operating companies.....	83	68	4	11	13	32	3	35
Number of establishments.....	95	76	8	11	16	33	4	42
Number of quarries.....	87	76	...	11	16	32	1	38
Number of preparation plants.....	79	60	8	11	...	33	4	42
Value of shipments.....\$1,000..	15,657	14,259	882	516	153	2,053	439	13,012
Value added in mining.....do....	10,050	9,093	529	428	119	1,404	291	8,236
Number of persons engaged, total.....	946	856	34	56	34	239	16	657
Production and development workers.....	803	733	28	42	20	205	8	570
All other employees.....	79	68	4	7	...	5	6	68
Proprietors and firm members.....	64	55	2	7	14	29	2	19
Performing manual labor.....	27	22	2	3	3	15	2	7
Man-hours worked by production and develop- ment workers.....1,000..	1,681	1,518	72	91	36	394	22	1,229
Wages and salaries, total.....\$1,000..	3,502	3,226	119	157	51	729	71	2,651
Wages of production and development workers.....do....	3,083	2,852	114	117	51	705	40	2,287
Salaries of all other employees.....do....	419	374	5	40	...	24	31	364
New capital expenditures.....do....	576	503	37	36	3	171	44	358

¹Represents operations which reported combinations of preparation methods or which did not specify the principal preparation method used.²Includes 117 salaried employees at central offices paid \$904,000 in salaries, not classified by type of operation.³Represents 1 combination of open quarry and underground mine; 1 underground mine; 2 separately-operated preparation plants; 1 nonproducing operation; and 6 operations which did not specify type of quarry. These latter 6 operations accounted for about 30 percent of the total value of shipments for this group.⁴Represents 9 open quarries, 1 combination open quarry and underground mine, and 1 operation not specifying type of quarry. Of the total number of establishments, 8 specified crushing as the principal preparation method and 3 establishments reported combinations of preparation methods or did not specify the principal preparation method used.⁵Represents 13 open quarries; 1 combination open quarry and underground mine; 2 underground mines; 1 separately-operated preparation plant; and 1 nonproducing operation.⁶Represents 2 mines without preparation plants and 7 operations which reported combinations of preparation methods or which did not specify the principal preparation method used.⁷Represents 1 combination open quarry and underground mine; 1 underground mine; 3 separately-operated preparation plants; 2 nonproducing operations; and 3 operations which did not specify type of quarry. These 3 latter operations accounted for about 8 percent of the total value of shipments for this group.⁸Includes 71 salaried employees at central offices paid \$516,000 in salaries not classified by type of operation.⁹Represents 1 underground mine; 4 separately-operated preparation plants; 2 nonproducing operations; and 5 operations which did not specify type of quarry. These latter 5 operations accounted for about 14 percent of the total value of shipments for this group.¹⁰Represents 1 combination open quarry and underground mine; 2 underground mines; 4 nonproducing operations; and 4 operations which did not specify type of quarry. These latter 4 operations accounted for about 25 percent of the total value of shipments for this group.

MINERAL INDUSTRIES--INDUSTRY STATISTICS

TABLE 5A.—VALUE OF SHIPMENTS OF PRIMARY PRODUCTS OF THE CRUSHED AND BROKEN STONE INDUSTRIES PRODUCED IN ALL INDUSTRIES AND VALUE OF SECONDARY PRODUCTS AND SERVICES OF THE CRUSHED AND BROKEN STONE INDUSTRIES IN THE UNITED STATES: 1954

(For explanation of column captions, see INTRODUCTION)

Item	Value of shipments and interplant transfers for the specified crushed and broken stone industry (\$1,000)						
	Limestone	Granite	Slate	Marble	Trap rock	Sandstone	Stone, n.e.c.
Total primary and secondary products produced in specified industry..	328,757	30,875	8,162	5,142	45,471	31,190	15,657
Primary products:							
Total shipments by quarries and plants classified in the crushed and broken stone industries.....	310,967	30,016	8,162	4,545	38,974	28,351	14,849
Net shipments, total ¹	328,434	31,766	8,199	5,039	40,280	28,697	17,194
Shipped by quarries and plants classified in the crushed and broken stone industries and in other mineral industries.....	311,525	30,476	(D)	4,586	38,555	(D)	16,883
Shipped by quarries included in establishments classified in manufacturing and wholesale trade industries ²	16,909	1,290	(D)	453	1,725	(D)	311
Secondary products and services, total.....	17,790	859	...	597	6,497	2,839	808
Ready-mixed concrete.....	5,493	(D)	...	...	2,178	(D)	...
Asphalt paving mixtures.....	3,577	(D)	...	...	2,732	761	(D)
Sand and gravel.....	1,161	...	...	...	83	74	93
Dimension stone.....	534	120	...	(D)	255	5	10
Crushed and broken stone ³	186	36	...	(D)	...	218	72
Miscellaneous manufactured products ⁴	1,474	...	...	...	270	...	...
Electric energy generated and sold.....	99	6	...	...	6	...	...
Products bought and resold without further processing.....	3,159	243	...	100	924	421	(D)
Contract work.....	1,910	...	...	...	25	36	82
Not specified.....	197	6	...	...	24	(D)	105

D Withheld to avoid approximately disclosing figures of individual companies.

¹See table 1, footnote 5.²See table 1, footnote 1. See also table 5B, footnote 3.³Represents crushed and broken stone other than the stone which is primary to the specified industry.⁴Represents principally hydrated lime, quicklime, and precast concrete products.

TABLE 5B.—PRIMARY PRODUCTS OF THE CRUSHED AND BROKEN STONE INDUSTRIES PRODUCED IN ALL MINING, MANUFACTURING, AND WHOLESALE TRADE INDUSTRIES IN THE UNITED STATES: 1954 AND 1939

(For explanation of column captions, see INTRODUCTION)

Type of crushed and broken stone	1954								1939 Production ¹		
	Produced and used in the same establishment in the manufacture of— (1,000 short tons)		Net shipments and interplant transfers ²						Quantity (1,000 short tons)	Value f.o.b. mine or plant (\$1,000)	
			Total		Shipments by quarries and plants classified in mineral industries		Shipments by quarries included in establishments classified in manufacturing and wholesale trade industries ³				
	Hydraulic cement	Quicklime and hydrated lime	Quantity (1,000 short tons)	Value f.o.b. mine or plant (\$1,000)	Quantity (1,000 short tons)	Value f.o.b. mine or plant (\$1,000)	Quantity (1,000 short tons)	Value f.o.b. mine or plant (\$1,000)			
All crushed and broken stone, total.....	59,150	10,839	299,115	459,609	287,162	438,635	11,953	20,974	} 108,807	102,029	
Limestone.....	58,240	10,839	232,476	328,092	222,471	311,183	10,005	16,909		76,479	
Calcareous marl.....	748	...	260	342	260	342	...	...	
Granite.....	...	...	22,780	31,766	22,211	30,476	569	1,290		7,044	7,337
Slate.....	...	...	947	8,199	(D)	(D)	(D)	(D)		308	2,137
Marble.....	...	...	544	5,039	469	4,586	75	453		76	174
Trap Rock.....	...	...	23,574	40,280	22,489	38,555	1,085	1,725		9,802	9,575
Sandstone.....	162	...	9,643	28,697	(D)	(D)	(D)	(D)		2,719	3,205
Stone, n.e.c.....	...	...	8,891	17,194	8,754	16,883	137	311		3,902	3,122

D Withheld to avoid approximately disclosing figures of individual companies.

¹Includes statistics for limestone and cement rock produced and used in the same establishment in the manufacture of cement and lime. Excludes production of 299,000 tons of crushed and broken stone valued at \$284,000 by establishments too small to come within the scope of the 1939 minerals census.²See table 1, footnote 5.³Represents quarries producing and shipping crushed and broken stone as a secondary product at establishments where the primary product is dressed dimension stone, bituminous concrete, hydraulic cement, lime, or ready-mixed concrete.

CRUSHED AND BROKEN STONE

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Table 6A.—GENERAL STATISTICS FOR CRUSHED AND BROKEN STONE ESTABLISHMENTS CLASSIFIED BY EMPLOYMENT SIZE, BY GEOGRAPHIC DIVISIONS
AND STATES: 1954

(For explanation of column captions, see INTRODUCTION)

Industry, geographic division, State, and number of employees in establishment	Number of estab- lish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
CRUSHED AND BROKEN LIMESTONE INDUSTRY									
United States, total.....	1,447	328,757	239,604	24,925	3,315	56,335	90,715	17,103	28,010
0.....	54	452	243	...	...	...	...	...	11
1-4.....	325	9,210	6,464	776	47	1,437	1,980	113	97
5-9.....	269	18,610	13,087	1,706	142	3,537	4,955	454	2,266
10-19.....	411	62,734	44,405	5,027	687	11,439	16,763	2,719	6,518
20-49.....	287	100,692	73,064	7,337	1,311	17,421	26,613	7,047	10,126
50-99.....	67	55,561	41,514	3,992	477	9,702	15,435	2,454	4,134
100-249.....	27	54,914	40,881	3,670	445	8,086	15,052	2,848	2,285
250-499.....	6	26,584	19,946	2,417	206	4,713	9,917	1,468	1,696
500-999.....	1								
New England, total.....	11	1,169	735	109	21	256	361	119	146
1-4.....	1	205	140	23	2	44	75	5	82
5-9.....	4								
10-19.....	5	964	595	86	19	212	286	114	64
20-49.....	1								
Middle Atlantic, total.....	166	62,196	46,241	4,661	642	10,331	18,520	3,647	4,761
0.....	2	606	492	64	2	128	162	10	160
1-4.....	26								
5-9.....	20	1,464	1,059	125	14	289	378	45	306
10-19.....	53	9,043	6,447	658	106	1,571	2,345	443	861
20-49.....	38	14,741	10,879	882	220	2,383	3,808	1,232	1,737
50-99.....	18	15,357	11,020	1,071	122	2,596	4,667	781	803
100-249.....	6	20,985	16,344	1,861	178	3,364	7,160	1,136	894
250-499.....	3								
Pennsylvania, total.....	114	37,357	27,077	3,122	436	6,506	10,914	2,445	3,005
0.....	2	357	349	39	1	77	82	4	159
1-4.....	17								
5-9.....	12	797	549	77	8	162	191	21	169
10-19.....	40	6,568	4,723	493	81	1,164	1,647	339	693
20-49.....	25	9,715	7,114	546	151	1,455	2,210	762	983
50-99.....	12	19,920	14,272	1,967	195	3,648	6,784	1,319	1,001
100-249.....	4								
250-499.....	2								
East North Central, total.....	421	111,707	83,926	7,678	1,052	17,585	31,451	6,153	8,311
0.....	28	136	102	...	...	...	...	...	9
1-4.....	101	2,888	2,010	238	13	449	635	35	272
5-9.....	83	6,191	4,264	539	51	1,144	1,712	194	573
10-19.....	109	15,815	11,148	1,265	199	3,000	4,823	818	1,221
20-49.....	72	28,898	22,124	1,825	303	4,243	7,237	2,001	2,869
50-99.....	12	12,583	9,846	717	143	1,765	3,177	658	699
100-249.....	12	25,859	20,108	1,697	175	3,868	7,316	1,201	1,381
250-499.....	3	19,337	14,324	1,397	168	3,116	6,551	1,246	1,287
500-999.....	1								
Ohio, total.....	102	33,603	26,056	2,469	442	5,695	10,213	2,527	3,551
0.....	2	381	278	44	2	77	98	6	57
1-4.....	15								
5-9.....	25	2,193	1,402	177	18	386	591	88	121
10-19.....	26	3,711	2,767	292	63	727	1,145	243	361
20-49.....	24	10,821	8,529	605	148	1,455	2,555	1,106	1,801
50-99.....	4	2,928	2,351	163	92	407	765	374	167
100-249.....	4	13,569	10,729	1,188	119	2,643	5,059	710	1,044
250-499.....	2								
Indiana, total.....	73	12,103	8,495	960	122	2,168	3,243	604	1,204
0.....	1	905	565	98	11	210	274	27	183
1-4.....	6								
5-9.....	13	4,503	3,137	359	44	817	1,212	167	451
10-19.....	31								
20-49.....	22	6,695	4,793	503	67	1,141	1,757	410	570
Illinois, total.....	134	35,728	27,396	2,171	209	4,977	8,669	1,270	1,858
0.....	5	59	43	...	...	...	...	...	...
1-4.....	42	1,539	1,060	110	4	218	320	6	102
5-9.....	29	1,880	1,419	186	11	370	547	38	152
10-19.....	31	4,801	3,399	367	46	883	1,447	213	285
20-49.....	16	7,943	6,142	441	61	1,003	1,795	362	371
50-99.....	6	8,040	6,468	430	39	1,050	1,897	217	291
100-249.....	5	11,466	8,865	637	48	1,453	2,663	434	657

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 6A.—GENERAL STATISTICS FOR CRUSHED AND BROKEN STONE ESTABLISHMENTS CLASSIFIED BY EMPLOYMENT SIZE, BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

(For explanation of column captions, see INTRODUCTION)

Industry, geographic division, State, and number of employees in establishment	Number of estab- lish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
CRUSHED AND BROKEN LIMESTONE INDUSTRY—Con.									
East North Central—Continued									
Michigan, total.....	33	21,506	16,030	1,301	192	2,937	6,246	1,385	908
0.....	12	32	21	...	...	...	...	...	...
1-4.....	12	371	218	16	5	24	37	21	...
5-9.....	1	1,937	1,580	112	17	285	517	93	95
10-19.....	2								
20-49.....	1								
50-99.....	1								
100-249.....	2	19,166	14,211	1,173	170	2,628	5,692	1,271	812
250-499.....	1								
500-999.....	1								
Wisconsin, total.....	79	8,767	5,949	777	87	1,808	3,080	367	790
0.....	8	26	20	...	...	...	...	...	9
1-4.....	26	561	420	57	1	111	158	1	100
5-9.....	15	1,215	891	86	9	186	308	30	129
10-19.....	19	6,965	4,618	634	77	1,511	2,614	336	552
20-49.....	9								
50-99.....	1								
100-249.....	1								
West North Central, total.....	404	50,448	35,191	3,949	624	8,949	13,775	2,747	5,787
0.....	14	105	75	...	...	...	...	...	2
1-4.....	128	3,493	2,496	311	11	577	762	30	333
5-9.....	84	5,732	4,227	528	40	1,096	1,515	109	710
10-19.....	107	16,022	11,023	1,298	153	2,956	4,325	565	1,974
20-49.....	68	23,440	15,622	1,652	376	3,805	6,531	1,897	1,921
50-99.....	3	1,656	1,748	160	44	515	642	146	847
Iowa, total.....	118	17,044	11,266	1,110	156	2,641	3,861	662	1,587
0.....	4	25	25	...	...	...	...	...	...
1-4.....	35	1,067	778	86	4	168	200	5	49
5-9.....	22	1,958	1,434	140	17	325	468	41	248
10-19.....	41	7,811	5,393	500	58	1,225	1,749	241	880
20-49.....	16	6,183	3,636	384	77	923	1,444	375	410
Missouri, total.....	163	16,322	12,565	1,510	269	3,288	5,009	1,135	2,398
0.....	6	34	21	...	...	...	...	...	2
1-4.....	52	976	706	121	4	197	256	9	81
5-9.....	39	2,304	1,794	234	14	414	535	32	252
10-19.....	38	4,646	3,383	452	60	992	1,468	166	373
20-49.....	27	8,362	6,661	703	191	1,685	2,750	928	1,690
50-99.....	1								
South Dakota, total.....	6	1,010	682	103	8	224	345	48	464
10-19.....	3	330	138	42	1	87	126	2	408
20-49.....	3	680	544	61	7	137	219	46	56
Kansas, total.....	68	9,492	6,197	627	134	1,406	2,271	606	499
0.....	3	1,049	699	72	2	148	202	8	68
1-4.....	27								
5-9.....	12								
10-19.....	13								
20-49.....	12	6,040	3,980	327	109	767	1,342	505	271
50-99.....	1								
South Atlantic, total.....	158	43,334	31,103	3,474	378	7,992	10,692	1,880	4,069
1-4.....	25	569	464	52	6	88	121	7	171
5-9.....	27	1,729	1,179	163	11	337	447	48	145
10-19.....	42	6,617	4,625	523	79	1,152	1,539	327	748
20-49.....	44	11,853	8,585	1,226	129	2,861	3,571	601	1,893
50-99.....	15	13,258	9,945	900	65	2,184	2,938	382	745
100-249.....	5	9,308	6,305	610	88	1,370	2,076	515	367
Maryland, total.....	10	5,611	3,807	279	31	699	1,033	182	357
1-4.....	2	170	139	10	1	21	22	2	106
5-9.....	1								
10-19.....	3								
20-49.....	2								
50-99.....	1	5,441	3,668	269	30	678	1,011	180	251
100-249.....	1								
Virginia, total.....	47	8,561	6,056	936	100	2,080	2,566	422	780
1-4.....	6	74	56	11	2	21	26	1	...
5-9.....	8	459	259	53	4	122	152	33	56
10-19.....	11	954	616	137	23	293	338	68	151
20-49.....	17	3,830	2,803	439	48	996	1,200	204	431
50-99.....	5	3,244	2,322	296	23	648	850	116	142

(For explanation of column captions, see INTRODUCTION)

Industry, geographic division, State, and number of employees in establishment	Number of estab- lish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
CRUSHED AND BROKEN LIMESTONE INDUSTRY—Con.									
South Atlantic—Continued									
West Virginia, total.....	27	8,824	6,538	807	103	1,630	2,621	550	601
1-4.....	3	11	7	3	1	4	3	1	...
5-9.....	7	260	172	40	3	75	104	2	6
10-19.....	5	478	542	53	4	120	176	8	20
20-49.....	6	1,558	872	178	20	368	620	99	93
50-99.....	3	6,517	4,945	533	75	1,063	1,718	440	301
100-249.....	3								
North Carolina, total.....	10	2,630	2,044	207	7	418	525	43	102
1-4.....	3	95	53	15	...	18	20	...	10
5-9.....	1								
10-19.....	3	2,535	1,991	192	7	400	505	43	92
20-49.....	1								
50-99.....	2								
Georgia, total.....	9	2,374	1,524	171	14	395	449	97	107
1-4.....	1	247	207	46	...	75	93	...	41
5-9.....	1								
10-19.....	3								
20-49.....	3	2,127	1,317	125	14	320	356	97	66
50-99.....	1								
East South Central, total.....	176	33,686	23,639	3,083	350	6,711	8,953	1,564	2,519
0.....	5	147	27	...	...	...	...	...	...
1-4.....	13	348	235	33	4	62	70	10	4
5-9.....	31	2,013	1,298	201	15	395	445	33	303
10-19.....	72	9,971	7,239	912	106	1,919	2,387	414	967
20-49.....	46	13,218	9,502	1,201	179	2,800	3,487	864	1,192
50-99.....	7	7,989	5,338	736	46	1,535	2,564	243	53
100-249.....	2								
Tennessee, total.....	76	12,657	8,657	1,110	133	2,481	3,049	618	1,071
0.....	3	8	7	...	...	...	...	...	...
1-4.....	8	213	133	21	2	37	44	6	...
5-9.....	17	1,394	847	123	6	250	282	3	190
10-19.....	26	3,687	2,525	313	29	699	841	111	377
20-49.....	20	7,355	5,145	653	96	1,495	1,882	498	504
50-99.....	2								
West South Central, total.....	47	15,168	10,507	1,269	146	3,099	4,214	594	1,435
0.....	2	277	184	20	3	33	43	4	4
1-4.....	7								
5-9.....	6	233	151	40	2	70	68	2	11
10-19.....	11	1,880	1,336	152	21	362	473	60	210
20-49.....	12	5,407	3,821	376	47	927	1,279	241	476
50-99.....	7	7,371	5,015	681	73	1,707	2,351	287	734
100-249.....	2								
Arkansas, total.....	6	794	594	83	18	160	222	54	66
0.....	1	794	574	83	18	160	222	54	66
5-9.....	2								
10-19.....	1								
20-49.....	2								
Oklahoma, total.....	19	5,975	4,505	561	60	1,437	1,951	208	752
1-4.....	4	222	137	17	3	23	29	4	1
5-9.....	1								
10-19.....	5	1,761	1,333	154	17	379	508	61	138
20-49.....	3								
50-99.....	6								
3,992	3,035	390	40	1,035	1,414	143	613		
Texas, total.....	22	8,399	5,428	625	68	1,502	2,041	332	617
0.....	1	250	167	33	1	67	66	1	3
1-4.....	3								
5-9.....	3								
10-19.....	5								
20-49.....	7	1,145	796	75	9	197	257	27	132
50-99.....	1	3,625	2,485	226	25	566	781	160	361
100-249.....	2	3,379	1,980	291	33	672	937	144	121
Mountain, total.....	27	4,386	3,207	304	64	612	1,142	210	112
1-4.....	9	496	194	22	4	45	67	11	5
5-9.....	9	635	448	58	6	105	182	16	33
10-19.....	4	699	481	49	2	101	184	12	27
20-49.....	3	2,556	2,084	175	52	361	709	171	47
50-99.....	2								
Montana, total.....	3	277	106	10	3	21	39	8	...
1-4.....	1	277	106	10	3	21	39	8	...
5-9.....	2								

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 6A.—GENERAL STATISTICS FOR CRUSHED AND BROKEN STONE ESTABLISHMENTS CLASSIFIED BY EMPLOYMENT SIZE, BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

(For explanation of column captions, see INTRODUCTION)

Industry, geographic division, State, and number of employees in establishment	Number of estab- lish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
CRUSHED AND BROKEN LIMESTONE INDUSTRY—Con.									
Mountain—Continued									
Colorado, total.....	7	1,127	844	71	4	126	214	30	31
1-4.....	3	1,127	844	71	4	126	214	30	31
5-9.....	3								
20-49.....	1								
Utah, total.....	7	889	702	81	36	175	319	95	34
1-4.....	2	889	702	81	36	175	319	95	34
5-9.....	1								
10-19.....	2								
20-49.....	1								
50-99.....	1								
Pacific, total.....	37	6,663	5,055	398	38	800	1,607	189	870
0.....	3	50	27	...	...	...	...	...	...
1-4.....	15	541	392	34	4	53	118	6	25
5-9.....	5	414	330	31	1	59	135	2	103
10-19.....	8	2,112	1,748	110	11	236	492	26	468
20-49.....	3	1,015	816	78	14	166	296	83	5
50-99.....	3	2,531	1,742	145	8	286	566	72	269
Washington, total.....	10	933	723	61	6	111	232	17	10
1-4.....	6	231	143	12	3	20	42	6	3
5-9.....	2	702	580	49	3	91	190	11	7
10-19.....	1								
20-49.....	1								
Oregon, total.....	5	282	223	26	...	49	109	...	336
0.....	1	282	223	26	...	49	109	...	336
1-4.....	3								
10-19.....	1								
California, total.....	22	5,448	4,109	311	32	640	1,266	172	524
0.....	2	483	417	32	1	56	134	...	99
1-4.....	6								
5-9.....	3								
10-19.....	6								
20-49.....	2	4,965	3,692	279	31	584	1,132	172	425
50-99.....	3								
CRUSHED AND BROKEN GRANITE INDUSTRY									
United States, total.....	101	30,875	22,201	2,344	206	5,607	7,573	1,306	2,698
0.....	6	569	32	...	...	...	...	...	...
1-4.....	19	367	294	39	3	78	108	8	70
5-9.....	25	2,246	1,864	162	14	291	533	76	391
10-19.....	11	1,755	1,304	142	12	321	414	43	230
20-49.....	24	8,794	6,616	667	57	1,596	2,489	298	468
50-99.....	11	9,472	6,628	744	78	1,895	2,213	584	527
100-249.....	5	7,672	5,463	590	42	1,426	1,816	297	1,012
New England, total.....	9	1,523	1,056	121	17	280	521	73	295
1-4.....	3	1,523	1,056	121	17	280	521	73	295
5-9.....	1								
10-19.....	1								
20-49.....	4								
Massachusetts, total.....	4	1,089	688	69	15	157	311	67	199
5-9.....	1	1,089	688	69	15	157	311	67	199
10-19.....	1								
20-49.....	2								
Middle Atlantic (New Jersey), total.....	4	1,177	1,065	44	...	124	271	...	4
5-9.....	3	1,177	1,065	44	...	124	271	...	4
20-49.....	1								
North Central, total.....	5	839	283	38	7	90	160	45	1
0.....	1	839	283	38	7	90	160	45	1
1-4.....	1								
5-9.....	1								
10-19.....	1								
20-49.....	1								
South, total.....	47	22,988	16,262	1,854	137	4,537	5,355	958	2,238
0.....	1	2,127	1,560	180	9	396	487	33	548
1-4.....	2								
5-9.....	7								
10-19.....	9								
20-49.....	13	13,189	9,239	1,084	86	2,715	3,052	628	678
50-99.....	10								
100-249.....	5								
		7,672	5,463	590	42	1,426	1,816	297	1,012

(For explanation of column captions, see INTRODUCTION)

Industry, geographic division, State, and number of employees in establishment	Number of estab- lish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
CRUSHED AND BROKEN GRANITE INDUSTRY—Con.									
South—Continued									
Virginia, total.....	6	2,130	1,452	187	8	441	475	42	224
5-9.....	2	195	157	29	1	58	71	4	30
10-19.....	1								
20-49.....	2								
50-99.....	1	1,935	1,295	158	7	383	404	38	194
North Carolina, total.....	19								
1-4.....	1								
5-9.....	2	1,405	1,025	74	3	184	242	15	470
10-19.....	4								
20-49.....	7								
50-99.....	4	3,008	2,168	231	18	576	645	106	99
100-249.....	1								
4,757	3,239	361	16	936	1,108	174	115		
South Carolina, total.....	5	3,168	2,167	287	33	724	716	228	254
1-4.....	1	3,168	2,167	287	33	724	716	228	254
50-99.....	4								
Georgia, total.....	12	6,049	4,201	457	50	1,068	1,305	349	643
0.....	1	385	271	51	5	110	122	14	17
5-9.....	2								
10-19.....	3								
20-49.....	2	5,664	3,930	406	45	958	1,183	335	626
50-99.....	1								
100-249.....	3								
Mountain, total.....	8	808	619	59	...	105	256	...	9
0.....	1	808	619	59	...	105	256	...	9
1-4.....	2								
5-9.....	4								
20-49.....	1								
Pacific, total.....	28	3,540	2,916	228	45	471	1,010	230	151
0.....	3	97	22	...	...	...	...	...	15
1-4.....	11	217	178	21	3	44	64	8	15
5-9.....	9	764	638	53	10	82	180	44	31
20-49.....	4	2,462	2,078	154	32	345	766	178	90
50-99.....	1								
California, total.....	22	3,361	2,823	209	44	445	966	226	136
0.....	1	899	745	55	12	100	200	48	46
1-4.....	9								
5-9.....	7								
20-49.....	4	2,462	2,078	154	32	345	766	178	90
50-99.....	1								
CRUSHED AND BROKEN SLATE INDUSTRY									
United States, total.....	11	8,162	5,055	464	69	1,198	1,949	420	312
5-9.....	2	1,106	730	98	19	214	319	93	56
10-19.....	4								
20-49.....	1	7,056	4,325	366	50	984	1,630	327	256
50-99.....	4								
CRUSHED AND BROKEN MARBLE INDUSTRY									
United States, total.....	18	5,142	3,661	379	52	796	1,120	249	350
1-4.....	6	709	667	95	12	173	295	54	212
5-9.....	1								
10-19.....	6								
20-49.....	3	4,433	2,994	284	40	623	825	195	138
50-99.....	1								
100-249.....	1								
East and South, total.....	10	4,801	3,377	330	46	709	950	230	329
1-4.....	1	368	383	46	6	86	125	35	191
5-9.....	1								
10-19.....	3								
20-49.....	3	4,433	2,994	284	40	623	825	195	138
50-99.....	1								
100-249.....	1								
West, total.....	8	341	284	49	6	87	170	19	21
1-4.....	5	341	284	49	6	87	170	19	21
10-19.....	3								

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 6A.—GENERAL STATISTICS FOR CRUSHED AND BROKEN STONE ESTABLISHMENTS CLASSIFIED BY EMPLOYMENT SIZE, BY GEOGRAPHIC DIVISIONS
AND STATES: 1954—Continued

(For explanation of column captions, see INTRODUCTION)

Industry, geographic division, State, and number of employees in establishment	Number of estab- lish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
CRUSHED AND BROKEN TRAP ROCK INDUSTRY									
United States, total.....	142	45,471	34,127	2,680	377	6,659	12,089	2,116	3,161
0.....	8	159	32	...	...	...	...	...	...
1-4.....	23	987	531	48	4	95	218	10	352
5-9.....	31	3,047	2,271	193	18	385	869	56	257
10-19.....	28	4,580	3,276	356	42	802	1,529	220	326
20-49.....	39	19,110	14,704	1,028	147	2,492	4,467	967	966
50-99.....	9	9,995	7,278	493	124	1,309	2,122	677	534
100-249.....	4	7,593	6,035	562	42	1,576	2,884	186	726
New England, total.....	22	6,067	4,827	374	91	950	1,647	500	585
1-4.....	1	337	266	18	1	37	82	4	...
5-9.....	2								
10-19.....	13	2,245	1,632	154	27	390	679	134	264
20-49.....	4	3,485	2,929	202	63	523	886	362	321
50-99.....	2								
Massachusetts, total.....	10	2,269	1,676	154	17	383	702	95	147
5-9.....	1	2,269	1,676	154	17	383	702	95	147
10-19.....	7								
20-49.....	2								
Connecticut, total.....	12	3,798	3,151	220	74	567	945	405	438
1-4.....	1	3,798	3,151	220	74	567	945	405	438
5-9.....	1								
10-19.....	6								
20-49.....	2								
50-99.....	2								
Middle Atlantic, total.....	38	28,051	21,086	1,498	218	4,097	7,148	1,318	1,960
1-4.....	4	462	166	18	1	43	74	6	310
5-9.....	2								
10-19.....	4	595	389	53	8	119	204	37	22
20-49.....	17	19,401	14,496	865	167	2,359	3,986	1,089	902
50-99.....	7								
100-249.....	4	7,593	6,035	562	42	1,576	2,884	186	726
New York, total.....	4	3,618	2,797	218	16	575	1,350	121	297
10-19.....	1	3,618	2,797	218	16	575	1,350	121	297
20-49.....	2								
100-249.....	1								
New Jersey, total.....	20	18,024	14,093	784	145	2,236	3,816	883	1,086
1-4.....	3	8,900	7,091	286	79	841	1,495	569	443
5-9.....	1								
20-49.....	10								
50-99.....	4	9,124	7,002	498	66	1,395	2,321	314	643
100-249.....	2								
Pennsylvania, total.....	14	6,409	4,196	496	57	1,286	1,982	314	577
1-4.....	1	536	331	50	6	120	176	28	49
5-9.....	1								
10-19.....	3								
20-49.....	5	1,369	824	143	11	341	546	74	286
50-99.....	3	4,504	3,041	303	40	825	1,260	212	242
100-249.....	1								
East North Central and South, total.....	11	3,992	2,909	239	25	534	786	128	222
5-9.....	2	3,992	2,909	239	25	534	786	128	222
20-49.....	9								
Maryland, total.....	5	1,510	1,244	81	6	175	284	35	14
5-9.....	2	1,510	1,244	81	6	175	284	35	14
20-49.....	3								
Mountain, total.....	7	1,287	839	73	2	154	361	19	60
0.....	2	354	147	7	...	21	49	...	49
1-4.....	1								
5-9.....	1								
10-19.....	2	933	692	66	2	133	312	19	11
20-49.....	1								
Pacific, total.....	64	6,074	4,466	496	41	924	2,147	151	334
0.....	6	571	384	37	3	72	172	4	67
1-4.....	17								
5-9.....	24	2,017	1,489	149	17	283	671	52	173
10-19.....	9	1,236	907	115	5	214	471	30	40
20-49.....	8	2,250	1,686	195	16	355	833	65	54

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(For explanation of column captions, see INTRODUCTION)

Industry, geographic division, State, and number of employees in establishment	Number of estab- lish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
CRUSHED AND BROKEN TRAP ROCK INDUSTRY—Con.									
Pacific—Continued									
Washington, total.....	19	2,166	1,545	183	17	307	841	71	74
0.....	2	202	147	9	...	18	39	...	1
1-4.....	5								
5-9.....	4	484	352	27	3	53	168	5	21
10-19.....	4	558	408	55	2	93	255	13	...
20-49.....	4	922	638	92	12	143	379	53	42
Oregon, total.....	30	2,126	1,583	169	12	318	692	47	176
0.....	3	257	183	20	1	37	92	1	24
1-4.....	9								
5-9.....	13	1,069	757	82	7	154	343	25	108
10-19.....	4	800	643	67	4	127	257	21	44
20-49.....	1								
California, total.....	15	1,782	1,338	144	12	299	614	33	84
0.....	1	112	54	8	2	17	41	3	32
1-4.....	3								
5-9.....	7	464	380	40	7	76	160	22	44
10-19.....	1	1,206	904	96	3	206	413	8	8
20-49.....	3								
CRUSHED AND BROKEN SANDSTONE INDUSTRY									
United States, total.....	87	31,190	22,913	1,529	182	3,283	5,970	1,084	4,479
0.....	9	292	35	...	...	...	...	...	15
1-4.....	12	265	199	23	1	49	79	8	...
5-9.....	19	1,471	1,121	117	9	223	438	26	234
10-19.....	16	2,583	2,056	204	17	430	720	68	194
20-49.....	26	11,239	7,864	690	76	1,503	2,651	425	858
50-99.....	4	15,340	11,638	495	79	1,078	2,082	557	3,178
250-499.....	1								
New England (Maine), total.....	4	570	505	89	1	184	289	3	46
5-9.....	2	570	505	89	1	184	289	3	46
10-19.....	1								
50-99.....	1								
Middle Atlantic, total.....	28	3,981	2,835	383	47	743	1,189	203	216
0.....	1	179	164	35	3	54	80	4	31
1-4.....	2								
5-9.....	5								
10-19.....	11	1,509	1,197	135	13	263	437	46	95
20-49.....	9	2,293	1,474	213	31	426	672	153	90
New York, total.....	3	717	514	55	8	150	249	34	69
10-19.....	1	717	514	55	8	150	249	34	69
20-49.....	2								
Pennsylvania, total.....	25	3,264	2,321	328	39	593	940	169	147
0.....	1	179	164	35	3	54	80	4	31
1-4.....	2								
5-9.....	5								
10-19.....	10	3,085	2,157	293	36	539	860	165	116
20-49.....	7								
North Central, total.....	16	16,387	11,788	526	90	1,122	2,143	557	3,430
1-4.....	4	180	129	19	6	42	81	24	...
5-9.....	1								
10-19.....	1								
20-49.....	8	16,207	11,659	507	84	1,080	2,062	533	3,430
50-99.....	1								
250-499.....	1								
Ohio, total.....	4	2,061	1,442	111	18	245	434	147	43
1-4.....	1	2,061	1,442	111	18	245	434	147	43
5-9.....	1								
20-49.....	1								
50-99.....	1								
South Dakota, total.....	4	1,716	809	85	7	222	365	24	121
1-4.....	1	1,716	809	85	7	222	365	24	121
20-49.....	3								

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 6A.—GENERAL STATISTICS FOR CRUSHED AND BROKEN STONE ESTABLISHMENTS CLASSIFIED BY EMPLOYMENT SIZE, BY GEOGRAPHIC DIVISIONS
AND STATES: 1954—Continued

(For explanation of column captions, see INTRODUCTION)

Industry, geographic division, State, and number of employees in establishment	Number of estab- lish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
CRUSHED AND BROKEN SANDSTONE INDUSTRY—Con.									
South Atlantic, total.....	7	4,906	3,686	185	16	480	805	121	280
5-9.....	1	4,906	3,686	185	16	480	805	121	280
10-19.....	1								
20-49.....	4								
50-99.....	1								
South Central, total.....	6	700	507	85	3	164	241	17	71
5-9.....	2	700	507	85	3	164	241	17	71
10-19.....	2								
20-49.....	2								
West, total.....	26	4,646	3,592	261	25	590	1,303	183	436
0.....	8	449	150	10	...	19	36	...	15
1-4.....	6								
5-9.....	8	758	483	50	2	103	236	9	120
20-49.....	3	3,439	2,959	201	26	468	1,031	174	301
50-99.....	1								
Montana, total.....	4	315	27	5	1	9	21	6	...
0.....	2	315	27	5	1	9	21	6	...
1-4.....	1								
5-9.....	1								
California, total.....	11	3,611	2,998	187	23	416	938	174	372
0.....	2	3,611	2,998	187	23	416	938	174	372
1-4.....	2								
5-9.....	4								
20-49.....	2								
50-99.....	1								
CRUSHED AND BROKEN STONE, N.E.C., INDUSTRY									
United States, total.....	95	15,657	10,050	803	79	1,681	3,083	419	576
0.....	8	305	80	...	...	...	...	...	74
1-4.....	49	960	645	92	6	164	263	10	40
5-9.....	23	2,145	1,760	149	9	332	517	51	235
10-19.....	7	879	668	94	2	220	328	5	85
20-49.....	3	915	650	78	7	136	302	54	14
50-99.....	4	10,453	6,247	390	55	829	1,673	299	128
100-249.....	1								
East, total.....	25	1,261	838	142	7	323	478	13	58
0.....	1	518	305	31	5	61	92	9	32
1-4.....	16								
5-9.....	6								
10-19.....	1								
50-99.....	1	743	533	111	2	262	386	4	26
South Atlantic, total.....	13	1,355	1,060	95	7	199	241	47	37
1-4.....	5	1,355	1,060	95	7	199	241	47	37
5-9.....	6								
10-19.....	1								
20-49.....	1								
South Central, total.....	13	6,481	3,823	202	25	454	747	130	258
0.....	1	6,481	3,823	202	25	454	747	130	258
1-4.....	4								
5-9.....	4								
10-19.....	3								
100-249.....	1								
Mountain, total.....	14	479	190	62	4	93	194	19	40
0.....	5	479	190	62	4	93	194	19	40
1-4.....	7								
10-19.....	1								
20-49.....	1								
Pacific, total.....	30	6,081	4,139	302	36	612	1,423	210	183
0.....	1	399	304	33	...	54	112	...	5
1-4.....	17								
5-9.....	7								
10-19.....	1								
20-49.....	1	5,682	3,835	269	36	558	1,311	210	178
50-99.....	3								
California, total.....	19	5,408	3,586	244	34	499	1,136	200	179
0.....	1	281	213	21	...	35	69	...	3
1-4.....	11								
5-9.....	3								
10-19.....	1								
50-99.....	3	5,127	3,373	223	34	464	1,067	200	176

CRUSHED AND BROKEN STONE

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Table 6B.—NUMBER OF CRUSHED AND BROKEN STONE QUARRIES INCLUDED IN ESTABLISHMENTS CLASSIFIED IN THE MANUFACTURING AND WHOLESALE TRADE INDUSTRIES CLASSIFIED BY EMPLOYMENT SIZE OF QUARRY, BY GEOGRAPHIC DIVISIONS AND STATES: 1954

Geographic division and State	All crushed and broken stone quarries included in manufacturing and wholesale trade establishments ¹							
	Total, all quarries	Quarries with an average of—						
		No employees	1-4 employees	5-9 employees	10-19 employees	20-49 employees	50-99 employees	100 employees and over
United States, total.....	255	15	31	28	54	98	25	4
New England, total.....	15	2	3	3	3	4	...	...
Maine.....	2	...	...	...	...	2	...	...
New Hampshire.....	1	1	...	...	...	...	...	...
Vermont.....	2	...	...	2	...	...	...	...
Massachusetts.....	7	1	2	...	2	2	...	...
Connecticut.....	3	...	1	1	1	...	...	...
Middle Atlantic, total.....	55	5	4	7	8	24	4	3
New York.....	17	1	3	4	4	5	...	...
Pennsylvania.....	38	4	1	3	4	19	4	3
East North Central, total.....	41	3	5	4	9	16	4	...
Ohio.....	20	...	1	2	4	10	3	...
Indiana.....	3	...	...	...	...	3	...	...
Illinois.....	6	...	...	...	2	3	1	...
Michigan.....	5	2	...	...	3	...	...	...
Wisconsin.....	7	1	4	2	...	...	...	...
West North Central, total.....	27	...	3	2	5	13	3	1
Iowa.....	7	...	1	1	...	5	...	...
Missouri.....	10	...	1	...	1	5	2	1
South Dakota.....	1	...	1	...	...	...	...	...
Nebraska.....	2	...	...	1	...	...	1	...
Kansas.....	7	...	...	...	4	3	...	...
South Atlantic, total.....	28	...	4	2	4	13	5	...
Maryland.....	5	...	1	1	1	1	1	...
Virginia.....	11	...	2	1	2	4	2	...
West Virginia.....	4	...	...	...	...	3	1	...
South Carolina.....	1	...	...	...	...	1	...	...
Georgia.....	3	...	1	...	...	1	1	...
Florida.....	4	...	...	...	1	3	...	...
East South Central, total.....	20	1	1	...	6	10	2	...
Tennessee.....	8	...	...	...	3	4	1	...
Alabama.....	11	1	1	...	3	5	1	...
Mississippi.....	1	...	...	...	...	1	...	...
West South Central, total.....	27	4	2	1	9	9	2	...
Arkansas.....	2	...	...	...	...	2	...	...
Louisiana.....	2	1	...	...	...	1	1	...
Oklahoma.....	2	...	...	1	...	1	...	...
Texas.....	21	3	2	...	9	6	1	...
Mountain, total.....	15	...	3	3	5	4	...	...
Montana.....	2	...	1	...	...	1	...	...
Idaho.....	1	...	...	1	...	...	...	...
Wyoming.....	1	...	...	...	1	...	...	...
Colorado.....	2	...	...	1	1	...	...	...
Arizona.....	4	...	1	...	2	1	...	...
Utah.....	3	...	1	1	1	...	...	...
Nevada.....	2	...	...	...	...	2	...	...
Pacific, total.....	27	...	6	6	5	5	5	...
Washington.....	8	...	2	3	1	2	...	...
Oregon.....	3	...	...	1	2	...	...	...
California.....	16	...	4	2	2	3	5	...

See footnotes at end of table.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 6B.—NUMBER OF CRUSHED AND BROKEN STONE QUARRIES INCLUDED IN ESTABLISHMENTS CLASSIFIED IN THE MANUFACTURING AND WHOLESALE

	Geographic division and State	Crushed and broken limestone quarries included in cement manufacturing establishments								Crushed and broken limestone quarries included in lime manufacturing establishments							
		Total, all quar- ries	Quarries with an average of—							Total, all quar- ries	Quarries with an average of—						
			No emp.	1-4 emp.	5-9 emp.	10-19 emp.	20-49 emp.	50-99 emp.	100 emp. and over		No emp.	1-4 emp.	5-9 emp.	10-19 emp.	20-49 emp.	50-99 emp.	100 emp. and over
1	United States, total.....	141	9	4	10	28	69	20	1	77	5	15	10	17	24	3	3
2	New England, total.....	1	...	...	...	...	1	...	...	7	1	1	2	1	2	...	...
3	Maine.....	1	...	...	...	...	1	...	...	1	...	...	...	...	1	...	...
4	New Hampshire.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5	Vermont.....	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	...
6	Massachusetts.....	...	...	...	...	...	...	...	...	4	1	1	...	1	1	...	...
7	Connecticut.....	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	...
8	Middle Atlantic, total.....	31	1	1	1	4	21	2	1	14	4	1	2	3	1	1	2
9	New York.....	10	1	1	...	3	5	...	...	1	...	...	1	...	...	...	...
10	Pennsylvania.....	21	...	...	1	1	16	2	1	13	4	1	1	3	1	1	2
11	East North Central, total.....	21	3	1	...	5	8	4	...	18	...	3	4	4	7	...	...
12	Ohio.....	8	...	1	...	1	3	3	...	12	...	...	2	3	7	...	...
13	Indiana.....	3	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...
14	Illinois.....	4	...	...	...	1	2	1	...	1	...	...	...	1	...	...	...
15	Michigan.....	5	2	...	...	3	...	...	...	...	...	...	...	...	...	...	...
16	Wisconsin.....	1	1	...	...	...	...	...	...	5	...	3	2	...	...	...	...
17	West North Central, total.....	19	...	...	1	4	11	3	...	5	...	1	...	1	2	...	1
18	Iowa.....	5	...	...	...	...	5	...	...	...	...	...	...	...	...	...	...
19	Missouri.....	5	...	...	...	...	3	2	...	4	...	...	...	1	2	...	1
20	South Dakota.....	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...
21	Nebraska.....	2	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...
22	Kansas.....	7	...	...	...	4	3	...	...	...	...	...	...	...	...	...	...
23	South Atlantic, total.....	13	...	...	...	2	7	4	...	11	...	3	2	...	5	1	...
24	Maryland.....	2	...	...	...	1	...	1	...	3	...	1	1	...	1	...	...
25	Virginia.....	4	...	...	...	1	2	1	...	5	...	1	1	...	2	1	...
26	West Virginia.....	2	...	...	...	...	1	1	...	2	...	...	...	...	2	...	...
27	South Carolina.....	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...
28	Georgia.....	2	...	...	...	...	1	1	...	1	...	1	...	...	...	...	...
29	Florida.....	2	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...
30	East South Central, total.....	14	1	...	...	4	8	1	...	6	...	1	...	2	2	1	...
31	Tennessee.....	6	...	...	...	1	4	1	...	2	...	...	...	2	...	...	...
32	Alabama.....	7	1	...	...	3	3	...	...	4	...	1	...	...	2	1	...
33	Mississippi.....	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...
34	West South Central, total.....	18	4	1	1	4	7	1	...	5	...	1	...	2	2	...	...
35	Arkansas.....	1	...	...	...	...	1	...	...	1	...	...	...	...	1	...	...
36	Louisiana.....	2	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...
37	Oklahoma.....	2	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...
38	Texas.....	13	3	1	...	4	5	...	...	4	...	1	...	2	1	...	...
39	Mountain, total.....	8	...	...	3	3	2	...	...	6	...	2	...	2	2	...	...
40	Montana.....	1	...	...	...	...	1	...	...	1	...	1	...	...	...	...	...
41	Idaho.....	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...
42	Wyoming.....	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
43	Colorado.....	2	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...
44	Arizona.....	1	...	...	...	...	1	...	...	2	...	...	...	2	...	...	...
45	Utah.....	2	...	...	1	1	...	...	...	1	...	1	...	...	...	...	...
46	Nevada.....	...	...	...	...	...	...	...	...	2	...	...	...	...	2	...	...
47	Pacific, total.....	16	...	1	4	2	4	5	...	5	...	2	...	2	1	...	...
48	Washington.....	6	...	1	3	...	2	...	...	1	...	...	...	1	...	...	...
49	Oregon.....	2	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...
50	California.....	8	...	...	1	...	2	5	...	4	...	2	...	1	1	...	...

¹In addition to quarries operated as part of cement and lime establishments, includes data for 37 other quarries operated as part of establishments primarily producing ready-mixed concrete and asphalt paving mixtures.

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[illegible]

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 7.—MONTHLY EMPLOYMENT IN THE CRUSHED AND BROKEN STONE INDUSTRIES, BY INDUSTRY, GEOGRAPHIC DIVISIONS, AND STATES: 1954
(For explanation of column captions, see INTRODUCTION)

Industry, geographic division, and State	Average employ- ment for the year ¹	Number of employees by month											
		January	February	March	April	May	June	July	August	September	October	November	December
CRUSHED AND BROKEN LIMESTONE INDUSTRY													
United States, total.....	28,240	25,660	25,630	26,590	27,921	28,787	29,158	29,660	29,778	29,641	29,350	28,729	27,354
New England.....	130	115	116	121	133	146	134	127	132	135	130	129	131
Middle Atlantic.....	5,303	4,990	4,821	5,044	5,315	5,421	5,429	5,554	5,595	5,573	5,489	5,329	5,005
Pennsylvania.....	3,558	3,474	3,454	3,553	3,585	3,588	3,554	3,637	3,675	3,655	3,592	3,508	3,323
East North Central, total.....	8,730	7,890	7,728	7,980	8,588	8,985	9,141	9,292	9,184	9,184	9,134	9,056	8,535
Ohio.....	2,911	2,812	2,767	2,817	2,876	2,993	2,936	2,988	2,966	3,047	2,990	2,883	2,809
Indiana.....	1,082	990	1,019	1,080	1,095	1,115	1,134	1,130	1,142	1,102	1,066	1,150	993
Illinois.....	2,380	2,257	2,183	2,244	2,392	2,392	2,417	2,516	2,458	2,411	2,450	2,408	2,386
Michigan.....	1,493	1,184	1,131	1,162	1,435	1,568	1,650	1,665	1,637	1,637	1,658	1,663	1,504
Wisconsin.....	864	647	628	677	790	917	1,004	993	981	987	970	952	843
West North Central.....	4,573	3,840	3,920	4,245	4,470	4,681	4,725	4,855	4,908	4,910	4,818	4,696	4,537
Iowa.....	1,266	1,066	1,048	1,122	1,190	1,262	1,293	1,348	1,332	1,353	1,343	1,345	1,294
Missouri.....	1,779	1,564	1,618	1,721	1,795	1,824	1,808	1,835	1,860	1,897	1,839	1,810	1,753
South Dakota.....	111	72	84	106	121	132	125	129	118	110	114	113	110
Kansas.....	761	638	663	739	769	789	745	777	802	810	804	766	758
South Atlantic.....	3,852	3,573	3,709	3,830	3,915	3,918	3,917	3,944	3,983	3,908	3,840	3,773	3,759
Maryland.....	310	284	283	295	310	319	319	326	319	319	322	314	315
Virginia.....	1,036	906	1,015	1,065	1,091	1,099	1,049	1,052	1,049	1,034	1,013	1,013	991
West Virginia.....	910	853	871	896	971	973	974	978	995	867	846	841	829
North Carolina.....	214	218	213	200	212	207	206	211	209	230	229	222	218
Florida.....	1,119	1,075	1,082	1,109	1,071	1,057	1,108	1,116	1,140	1,182	1,156	1,120	1,140
East South Central.....	3,433	3,086	3,178	3,246	3,418	3,496	3,565	3,571	3,648	3,611	3,631	3,505	3,238
Tennessee.....	1,243	1,115	1,108	1,128	1,199	1,258	1,281	1,324	1,384	1,344	1,305	1,264	1,186
West South Central.....	1,415	1,461	1,417	1,410	1,402	1,419	1,452	1,410	1,411	1,422	1,397	1,391	1,354
Arkansas.....	101	102	102	102	99	100	101	98	104	103	104	99	98
Oklahoma.....	621	677	623	612	613	607	624	616	608	613	616	614	609
Texas.....	693	682	692	696	690	712	727	696	699	706	677	678	647
Mountain.....	368	345	351	322	302	331	370	425	417	407	409	380	339
Montana.....	13	12	8	11	10	13	18	22	19	7	7	9	7
Colorado.....	75	79	79	58	30	33	66	88	93	92	94	90	87
Utah.....	117	110	109	102	103	104	117	115	120	128	139	140	121
Pacific, total.....	436	360	390	392	378	390	425	482	500	491	502	470	456
Washington.....	67	47	67	67	74	74	66	72	75	72	72	66	57
Oregon.....	26	3	4	7	8	7	7	41	44	44	46	45	45
California.....	343	310	319	318	296	309	352	369	381	375	384	359	354
CRUSHED AND BROKEN GRANITE INDUSTRY													
United States, total.....	2,550	2,435	2,442	2,461	2,470	2,612	2,537	2,585	2,619	2,634	2,620	2,600	2,480
New England.....	138	73	68	82	124	149	149	167	195	179	174	157	132
Massachusetts.....	84	57	54	63	93	98	97	97	98	95	92	91	71
Middle Atlantic (New Jersey).....	44	29	29	42	45	47	50	52	52	52	48	46	35
North Central.....	45	26	24	28	49	56	59	62	60	55	43	43	26
South.....	1,991	1,951	1,993	1,996	1,940	1,991	1,955	1,971	1,985	2,025	2,008	2,017	1,988
Virginia.....	195	205	205	207	198	196	200	197	195	196	188	180	180
North Carolina.....	703	655	663	700	668	689	703	709	711	744	735	729	707
South Carolina.....	320	313	314	319	321	327	327	321	321	322	313	315	313
Georgia.....	507	515	524	510	513	490	493	485	490	500	508	503	507
Mountain.....	59	78	80	54	44	51	68	74	76	72	70	51	23
Pacific.....	273	278	248	259	268	318	256	259	251	251	277	286	276
California.....	253	257	238	239	243	295	242	246	239	237	252	261	254
CRUSHED AND BROKEN SLATE INDUSTRY													
United States.....	533	506	510	503	527	522	537	545	554	553	545	550	520
CRUSHED AND BROKEN MARBLE INDUSTRY													
United States, total.....	431	412	396	422	411	429	431	443	437	450	451	459	439
East and South.....	376	364	353	373	363	369	373	382	372	381	393	407	388
West.....	55	48	43	49	48	60	58	61	65	69	58	52	51

See footnotes at end of table.

CRUSHED AND BROKEN STONE

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Table 7.—MONTHLY EMPLOYMENT IN THE CRUSHED AND BROKEN STONE INDUSTRIES BY INDUSTRY, GEOGRAPHIC DIVISIONS, AND STATES: 1954—Continued

(For explanation of column captions, see INTRODUCTION)

Industry, geographic division, and State	Average employ- ment for the year ¹	Number of employees by month											
		January	February	March	April	May	June	July	August	September	October	November	December
CRUSHED AND BROKEN TRAP ROCK INDUSTRY													
United States, total.....	3,057	2,723	2,728	2,872	3,099	3,213	3,213	3,211	3,300	3,199	3,097	3,011	2,924
New England.....	465	394	389	425	458	492	501	507	505	490	482	473	458
Massachusetts.....	171	123	124	151	176	190	189	193	191	185	177	174	164
Connecticut.....	294	271	265	274	282	302	312	314	314	305	305	299	294
Middle Atlantic, total.....	1,716	1,555	1,544	1,628	1,757	1,801	1,787	1,816	1,832	1,742	1,695	1,722	1,679
New York.....	234	200	152	210	238	256	252	256	254	253	245	242	242
New Jersey.....	929	844	866	890	977	988	971	997	1,002	912	883	905	883
Pennsylvania.....	553	511	526	528	542	557	564	563	576	577	567	575	554
East North Central and South.....	264	261	262	253	263	273	266	267	279	262	260	257	261
Maryland.....	87	84	85	88	87	90	90	90	89	84	85	85	84
Mountain.....	75	70	68	43	60	90	92	117	116	110	60	24	24
Pacific, total.....	537	443	465	523	561	557	567	504	568	595	600	535	502
Washington.....	200	165	161	188	210	198	214	184	242	234	239	181	164
Oregon.....	181	142	173	201	212	216	210	167	165	196	192	174	167
California.....	156	136	131	134	139	143	143	153	161	165	169	180	171
CRUSHED AND BROKEN SANDSTONE INDUSTRY													
United States, total.....	1,711	1,658	1,611	1,585	1,742	1,764	1,871	1,906	1,840	1,826	1,712	1,598	1,435
New England (Maine).....	90	46	61	66	71	74	92	130	117	125	120	84	84
Middle Atlantic, total.....	430	390	364	355	447	416	457	468	497	491	482	439	365
New York.....	63	53	38	40	75	80	77	76	76	76	72	69	43
Pennsylvania.....	367	337	326	315	372	336	380	392	421	415	410	370	322
North Central.....	616	614	611	601	637	642	666	659	631	635	578	577	551
Ohio.....	129	132	125	127	128	128	131	136	135	139	124	127	123
South Dakota.....	92	83	86	90	103	110	128	110	88	83	80	78	70
South Atlantic.....	201	250	219	207	263	272	267	256	177	139	142	120	102
South Central.....	88	106	105	106	98	79	90	79	94	84	76	75	65
West.....	286	252	251	250	226	281	299	314	324	352	314	303	268
Montana.....	6	7	8	13	3	4	4	3	1	13	7	4	5
California.....	210	188	186	194	184	209	196	216	226	232	225	237	225
CRUSHED AND BROKEN STONE, N.E.C., INDUSTRY													
United States, total.....	882	733	722	740	832	899	945	1,037	1,035	982	918	865	832
East.....	149	117	120	143	142	151	161	156	154	165	169	163	145
South Atlantic.....	102	105	91	90	91	90	79	112	122	125	118	98	93
South Central.....	227	212	221	219	239	243	245	236	238	238	211	214	215
Mountain.....	66	31	31	34	55	65	86	119	104	79	57	71	65
Pacific.....	338	268	259	254	305	350	374	414	417	375	363	319	314
California.....	278	208	205	208	255	299	308	353	340	324	301	248	251

¹Represents the sum of the average employment figures for the year as shown in the separate establishment reports. These are the averages shown in other tables of this report. Because of roundings, the sum of such average figures may differ slightly from the average of the January to December totals shown in this table.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 8.—GENERAL STATISTICS FOR CRUSHED AND BROKEN STONE ESTABLISHMENTS CLASSIFIED BY OUTPUT PER MAN-HOUR, BY GEOGRAPHIC DIVISION, AND BY SELECTED TYPES OF OPERATION FOR THE CRUSHED AND BROKEN LIMESTONE INDUSTRY, AND FOR THE UNITED STATES FOR ALL OTHER INDUSTRIES: 1954

(For explanation of column captions, see INTRODUCTION)

Industry, geographic division or type of operation, and tons of crushed stone per man-hour	Number of estab- lish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expendi- tures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
CRUSHED AND BROKEN LIMESTONE INDUSTRY									
United States, total.....	1,447	328,757	239,604	24,925	3,315	56,335	90,715	17,103	28,010
Less than 0.40.....	16	1,680	1,491	180	7	408	617	45	802
0.40-0.59.....	21	3,300	2,514	295	37	749	1,042	210	278
0.60-0.79.....	14	1,061	601	178	11	375	551	50	232
0.80-0.99.....	26	6,288	4,865	545	67	1,259	1,890	414	535
1.00-1.49.....	49	6,240	4,256	815	74	1,788	2,670	299	469
1.50-1.99.....	77	11,279	8,572	1,554	169	3,419	4,779	688	1,467
2.00-2.49.....	93	17,062	11,835	2,215	176	4,323	6,425	988	1,118
2.50-2.99.....	95	14,404	10,079	1,456	172	3,338	4,814	738	1,613
3.00-4.99.....	304	87,199	64,959	6,863	777	15,927	25,684	3,917	7,429
5.00-6.99.....	145	51,211	39,332	3,030	466	6,908	12,573	2,468	3,865
7.00 and over.....	81	40,868	30,810	2,084	321	4,623	9,419	1,995	2,385
Unclassified ¹	526	88,165	60,290	5,710	1,038	13,218	20,251	5,291	7,817
Geographic Division									
New England, total.....	11	1,169	735	109	21	256	361	119	146
Less than 0.40.....	1	283	171	35	7	78	105	38	88
0.40-0.59.....	1								
0.60-0.79.....	1								
1.00-1.49.....	1								
2.00-2.49.....	3	592	383	44	10	112	149	66	22
3.00-4.99.....	1	294	181	30	4	66	107	15	36
Unclassified ¹	3								
Middle Atlantic, total.....	166	62,196	46,241	4,661	642	10,331	18,520	3,647	4,761
Less than 0.40.....	5	901	696	98	8	218	330	27	61
0.40-0.59.....	2								
0.60-0.79.....	...								
0.80-0.99.....	3								
1.00-1.49.....	6	672	206	122	17	286	438	67	66
1.50-1.99.....	7	693	516	115	16	195	287	53	95
2.00-2.49.....	6	6,339	4,200	889	69	1,373	2,650	367	321
2.50-2.99.....	10								
3.00-4.99.....	38	19,432	14,635	1,480	160	3,258	6,333	997	1,761
5.00-6.99.....	12	12,093	9,744	538	78	1,436	3,096	426	585
7.00 and over.....	5	1,751	1,362	78	12	190	304	78	364
Unclassified ¹	72	20,315	14,882	1,341	282	3,375	5,082	1,632	1,508
East North Central, total.....	421	111,707	83,926	7,678	1,052	17,585	31,451	6,153	8,311
Less than 0.40.....	2	1,629	1,493	142	20	393	603	148	208
0.40-0.59.....	4								
0.60-0.79.....	3								
0.80-0.99.....	9								
1.00-1.49.....	14	3,239	2,557	265	33	593	930	216	225
1.50-1.99.....	14	1,314	1,085	173	18	345	503	70	68
1.50-1.99.....	19	3,900	3,187	507	50	1,122	2,021	243	964
2.00-2.49.....	22	1,759	1,432	222	23	494	724	147	239
2.50-2.99.....	21	2,062	1,536	234	24	568	805	121	125
3.00-4.99.....	82	23,773	17,832	1,853	198	4,374	7,365	970	1,577
5.00-6.99.....	45	14,829	11,724	915	148	2,063	3,833	755	1,275
7.00 and over.....	25	28,293	21,604	1,510	235	3,402	7,319	1,583	1,396
Unclassified ¹	175	30,671	21,337	1,831	301	4,178	7,269	1,892	2,234
West North Central, total.....	404	50,448	35,191	3,949	624	8,949	13,775	2,747	5,787
Less than 0.40.....	3	584	233	46	2	120	173	11	450
0.40-0.59.....	2								
0.60-0.79.....	5								
0.80-0.99.....	4								
1.00-1.49.....	11	423	264	76	2	161	268	15	50
1.50-1.99.....	4	251	203	45	4	101	134	23	7
1.50-1.99.....	17	1,292	867	148	12	411	498	33	171
2.00-2.49.....	17	912	678	149	30	359	391	50	82
2.00-2.49.....	26	1,603	1,077	219	5	451	628	22	136
2.50-2.99.....	29	3,216	2,425	362	30	766	1,207	146	264
3.00-4.99.....	78	12,574	9,395	996	149	2,328	3,840	725	1,367
5.00-6.99.....	49	10,152	7,308	650	114	1,404	2,559	636	969
7.00 and over.....	26	2,380	1,777	122	30	232	394	120	173
Unclassified ¹	154	17,061	10,964	1,136	246	2,616	3,683	966	2,118
South Atlantic, total.....	158	43,334	31,103	3,474	378	7,992	10,692	1,880	4,069
Less than 0.40.....	1	1,186	929	103	9	268	341	33	149
0.40-0.59.....	4								
0.60-0.79.....	2								
0.80-0.99.....	4								
1.00-1.49.....	6	532	357	72	10	204	229	34	173
1.50-1.99.....	6	425	332	80	6	179	191	11	79
1.50-1.99.....	16	2,429	1,764	371	33	797	903	130	105
2.00-2.49.....	16	5,104	3,695	542	52	1,220	1,550	311	362
2.50-2.99.....	11	4,131	2,860	374	35	894	1,212	188	410
3.00-4.99.....	33	15,620	11,246	1,078	118	2,592	3,669	640	1,629
5.00-6.99.....	11	4,723	3,662	277	36	598	885	182	222
7.00 and over.....	9	2,587	1,699	72	21	162	271	81	25
Unclassified ¹	45	6,597	4,559	505	58	1,078	1,441	270	915

See footnotes at end of table.

CRUSHED AND BROKEN STONE

14D-45

Table 8.—GENERAL STATISTICS FOR CRUSHED AND BROKEN STONE ESTABLISHMENTS CLASSIFIED BY OUTPUT PER MAN-HOUR, BY GEOGRAPHIC DIVISION, AND BY SELECTED TYPES OF OPERATION FOR THE CRUSHED AND BROKEN LIMESTONE INDUSTRY, AND FOR THE UNITED STATES FOR ALL OTHER INDUSTRIES: 1954—Continued

(For explanation of column captions, see INTRODUCTION)

Industry, geographic division or type of operation, and tons of crushed stone per man-hour	Number of estab- lish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expendi- tures (\$1,000)								
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)									
CRUSHED AND BROKEN LIMESTONE—Continued																	
Geographic Division—Continued																	
East South Central, total.....	176	33,686	23,639	3,083	350	6,711	8,953	1,564	2,519								
Less than 0.40.....	1	538	298	81	4	150	191	18	53								
0.40-0.59.....	3																
0.60-0.79.....	2																
0.80-0.99.....	4																
1.00-1.49.....	3	2,505	1,748	249	22	493	904	171	255								
1.50-1.99.....	13																
2.00-2.49.....	14																
2.50-2.99.....	17																
3.00-4.99.....	56	10,058	7,412	959	109	2,119	2,689	430	541								
5.00-6.99.....	18	6,428	4,611	437	47	905	1,441	233	591								
7.00 and over.....	5	1,978	1,594	81	5	186	296	9	138								
Unclassified ¹	40	5,148	3,380	395	75	866	1,056	302	449								
West South Central, total.....	47	15,168	10,507	1,269	146	3,099	4,214	594	1,435								
0.40-0.59.....	2	603	444	88	7	188	228	38	26								
1.00-1.49.....	2																
1.50-1.99.....	1																
2.00-2.49.....	4																
2.50-2.99.....	1	1,411	1,007	165	20	425	536	86	226								
3.00-4.99.....	14																
5.00-6.99.....	6																
7.00 and over.....	2																
Unclassified ¹	15	5,477	3,217	355	43	827	1,178	164	392								
Mountain, total.....	27	4,386	3,207	304	64	612	1,142	210	112								
Less than 0.40.....	1	723	523	89	12	163	313	30	16								
0.60-0.79.....	1																
1.00-1.49.....	3																
1.50-1.99.....	1																
2.00-2.49.....	1	458	336	36	18	88	142	22	8								
2.50-2.99.....	5																
3.00-4.99.....	1																
5.00-6.99.....	3																
7.00 and over.....	4	1,456	1,107	57	6	130	240	38	4								
Unclassified ¹	7	1,163	798	65	18	114	211	41	59								
Pacific, total.....	37	6,663	5,055	398	38	800	1,607	189	870								
Less than 0.40.....	2	1,584	1,377	119	5	240	428	31	190								
0.40-0.59.....	3																
0.80-0.99.....	2																
1.00-1.49.....	3																
1.50-1.99.....	3	609	469	59	10	127	235	57	12								
2.00-2.49.....	1																
2.50-2.99.....	1																
3.00-4.99.....	1																
5.00-6.99.....	1	1,113	1,002	58	4	115	267	20	347								
7.00 and over.....	5																
Unclassified ¹	15									1,873	1,199	104	8	210	426	72	215
Unclassified ¹	15									1,484	1,008	58	11	108	251	9	106
Selected Types of Producing Operations																	
Open quarries with preparation plants, total...	1,232	287,996	211,777	20,982	2,785	48,530	77,553	13,932	25,732								
Less than 0.40.....	6	888	769	90	4	208	307	17	204								
0.40-0.59.....	16	3,155	2,425	261	35	586	977	193	278								
0.60-0.79.....	13	1,015	628	158	10	336	448	47	209								
0.80-0.99.....	25	6,258	4,845	541	67	1,251	1,881	414	535								
1.00-1.49.....	36	3,086	2,084	434	45	1,045	1,325	145	418								
1.50-1.99.....	64	6,945	5,438	985	114	2,238	2,674	390	1,131								
2.00-2.49.....	74	9,632	6,617	1,142	85	2,626	3,394	444	850								
2.50-2.99.....	82	12,204	8,642	1,205	156	2,809	3,952	594	1,425								
3.00-4.99.....	270	77,272	57,787	6,083	688	14,199	22,889	3,463	7,172								
5.00-6.99.....	126	45,755	35,591	2,704	419	6,195	11,275	2,161	3,608								
7.00 and over.....	68	37,866	28,923	1,934	308	4,291	8,812	1,917	2,127								
Unclassified ¹	452	83,920	58,028	5,445	854	12,746	19,619	4,147	7,775								
Underground mines, total.....	69	24,799	17,761	2,770	264	5,243	9,234	1,487	1,181								
0.40-0.59.....	2	140	47	41	2	81	141	11	23								
0.60-0.79.....	1																
1.00-1.49.....	5																
1.50-1.99.....	9																
2.00-2.49.....	8	2,859	1,962	348	26	677	1,247	152	47								
2.50-2.99.....	6	4,252	3,068	556	52	1,050	2,065	293	336								
3.00-4.99.....	21	4,754	3,280	799	54	1,299	2,175	302	130								
5.00-6.99.....	8	1,300	764	147	19	312	492	98	187								
7.00 and over.....	8	7,659	5,825	620	70	1,238	2,166	372	272								
Unclassified ¹	9	2,797	2,187	166	27	381	696	205	152								
Unclassified ¹	9	1,038	628	93	14	205	252	54	34								

See footnotes at end of table.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 8.—GENERAL STATISTICS FOR CRUSHED AND BROKEN STONE ESTABLISHMENTS CLASSIFIED BY OUTPUT PER MAN-HOUR, BY GEOGRAPHIC DIVISION, AND BY SELECTED TYPES OF OPERATION FOR THE CRUSHED AND BROKEN LIMESTONE INDUSTRY, AND FOR THE UNITED STATES FOR ALL OTHER INDUSTRIES: 1954—Continued

(For explanation of column captions, see INTRODUCTION)

Industry, geographic division or type of operation, and tons of crushed stone per man-hour	Number of estab- lish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expendi- tures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
CRUSHED AND BROKEN GRANITE INDUSTRY									
United States, total.....	101	30,875	22,201	2,344	206	5,607	7,573	1,306	2,698
Less than 0.40.....	3	408	329	23	2	43	61	14	389
0.40-0.59.....	2	2,257	1,729	130	23	304	372	145	
0.60-0.79.....	1								
0.80-0.99.....	3								
1.00-1.49.....	5								
1.50-1.99.....	5	778	603	137	9	339	334	61	84
2.00-2.49.....	7	738	584	93	10	231	291	49	86
2.50-2.99.....	7	1,517	1,213	132	18	292	408	91	42
3.00-4.99.....	20	2,158	1,509	237	8	581	752	71	330
5.00-6.99.....	9	13,519	9,353	1,061	84	2,557	3,403	580	1,097
7.00 and over.....	9	4,773	3,714	252	28	631	1,052	183	101
Unclassified ¹	30	1,257	1,123	48	8	80	192	54	45
		3,470	2,044	231	16	549	708	58	524
CRUSHED AND BROKEN SLATE INDUSTRY									
United States, total.....	11	8,162	5,055	464	69	1,198	1,949	420	312
Less than 0.40.....	4	8,162	5,055	464	69	1,198	1,949	420	312
0.40-0.59.....	2								
0.60-0.79.....	2								
Unclassified ¹	3								
CRUSHED AND BROKEN MARBLE INDUSTRY									
United States, total.....	18	5,142	3,661	379	52	796	1,120	249	350
Less than 0.40.....	5	589	625	71	9	125	237	46	209
0.40-0.59.....	4	2,575	1,721	191	28	412	511	117	65
0.80-0.99.....	3	1,978	1,315	117	15	259	372	86	76
2.00-2.49.....	2								
Unclassified ¹	4								
CRUSHED AND BROKEN TRAP ROCK INDUSTRY									
United States, total.....	142	45,471	34,127	2,680	377	6,659	12,089	2,116	3,161
Less than 0.40.....	2	6,958	5,072	199	21	526	812	107	227
0.40-0.59.....	2								
0.60-0.79.....	3								
0.80-0.99.....	2								
1.00-1.49.....	5	3,864	2,953	389	8	1,216	1,672	44	180
1.50-1.99.....	2	1,990	1,606	198	26	476	709	118	109
2.00-2.49.....	7								
2.50-2.99.....	8								
3.00-4.99.....	32								
5.00-6.99.....	11	2,509	2,011	226	22	570	956	140	246
7.00 and over.....	9	11,411	9,025	668	101	1,567	3,351	499	631
Unclassified ¹	59	1,917	1,563	131	11	240	581	54	82
		1,680	1,400	67	2	143	387	8	82
		15,142	10,497	802	186	1,921	3,621	1,146	1,604
CRUSHED AND BROKEN SANDSTONE INDUSTRY									
United States, total.....	87	31,190	22,913	1,529	182	3,283	5,970	1,084	4,479
0.40-0.59.....	3	492	370	50	3	80	138	20	24
0.60-0.79.....	1								
0.80-0.99.....	3								
1.00-1.49.....	10								
1.50-1.99.....	6	12,897	9,940	408	58	788	1,586	339	3,266
2.00-2.49.....	3	2,266	1,603	145	18	310	498	145	89
2.50-2.99.....	1	245	148	28	10	60	100	30	3
3.00-4.99.....	14								
5.00-6.99.....	4								
7.00 and over.....	6								
Unclassified ¹	36	4,586	3,022	303	22	774	1,200	94	356
		688	502	40	2	83	155	15	28
		2,252	1,720	66	5	171	358	46	156
		7,239	5,194	405	62	915	1,717	388	553
CRUSHED AND BROKEN STONE, N.E.C.,INDUSTRY									
United States, total.....	95	15,657	10,050	803	79	1,681	3,083	419	576
Less than 0.40.....	5	1,035	648	67	7	158	369	36	108
0.40-0.59.....	1	28	22	3	...	4	5	...	1
0.60-0.79.....	2								
0.80-0.99.....	3								
1.00-1.49.....	4								
1.50-1.99.....	5	8,872	5,317	346	45	718	1,263	252	69
2.00-2.49.....	3	614	490	56	1	119	258	6	6
2.50-2.99.....	4								
3.00-4.99.....	11								
5.00-6.99.....	8								
7.00 and over.....	14	1,297	1,008	56	3	127	227	31	29
Unclassified ¹	35	3,303	2,235	236	22	470	825	90	285

¹This group includes (a) reports indicating that a substantial proportion of the production was performed by contractors, for whom man-hours are not included in this table; (b) reports specifying that a substantial portion of the man-hours reported referred to exploration and development work; (c) reports that showed substantial value of shipment of products other than crushed and broken stone; and (d) reports for small establishments which indicated that proprietors or partners, for whom man-hours are not included in this table, regularly worked at the establishment. Significant ratios of output per man-hour could not be calculated for these groups.

CRUSHED AND BROKEN STONE

14D-47

Table 9.—GENERAL STATISTICS FOR CRUSHED AND BROKEN STONE ESTABLISHMENTS CLASSIFIED BY THE RATIO OF WAGES AND SALARIES TO VALUE ADDED IN MINING BY INDUSTRY, AND FOR CRUSHED AND BROKEN LIMESTONE ESTABLISHMENTS BY GEOGRAPHIC DIVISIONS: 1954

(For explanation of column captions, see INTRODUCTION)

Industry, geographic division, and ratio of wages and salaries to value added in mining	Number of establishments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
CRUSHED AND BROKEN LIMESTONE INDUSTRY									
United States, total.....	1,447	328,757	239,604	24,925	3,315	56,335	90,715	17,103	28,010
Less than 0.30.....	270	67,534	54,041	3,081	275	7,292	11,421	1,076	7,672
0.30-0.39.....	224	68,343	53,509	4,215	483	9,744	16,082	2,660	4,216
0.40-0.49.....	245	72,058	52,248	5,210	798	12,010	19,805	4,211	6,029
0.50-0.59.....	232	59,334	42,662	5,278	656	11,738	19,123	3,957	4,520
0.60-0.69.....	116	20,883	14,088	2,107	373	4,940	7,200	1,727	1,241
0.70-0.79.....	96	16,822	10,513	1,814	266	3,921	6,469	1,329	1,577
0.80-0.89.....	56	11,303	7,372	1,612	163	3,063	5,252	880	851
0.90-0.99.....	34	4,945	2,610	563	91	1,243	1,973	459	210
1.00 and over.....	118	6,983	2,274	1,045	210	2,384	3,390	804	1,679
Unclassified ¹	56	552	287	...	...	...	...	...	15
New England, total.....	11	1,169	735	109	21	256	361	119	146
Less than 0.30.....	2	890	542	66	13	165	216	85	46
0.50-0.59.....	2								
0.60-0.69.....	2								
0.70-0.79.....	1	279	193	43	8	91	145	34	100
0.80-0.89.....	1								
0.90-0.99.....	1								
1.00 and over.....	2								
Middle Atlantic, total.....	166	62,196	46,241	4,661	642	10,331	18,520	3,647	4,761
Less than 0.30.....	28	8,005	6,774	362	67	939	1,347	257	1,084
0.30-0.39.....	25	17,438	14,158	866	75	2,239	4,410	453	792
0.40-0.49.....	23	7,883	6,017	473	127	1,187	2,089	701	540
0.50-0.59.....	33	13,824	10,284	1,158	156	2,453	4,601	1,032	1,158
0.60-0.69.....	13	5,016	3,461	452	80	912	1,721	507	248
0.70-0.79.....	8	2,617	1,223	209	25	509	781	114	407
0.80-0.89.....	6	4,554	3,156	761	55	1,157	2,225	343	143
0.90-0.99.....	10	889	471	106	25	255	337	114	4
1.00 and over.....	18	1,970	697	274	32	680	1,009	126	385
Unclassified ¹	2								
East North Central, total.....	421	111,707	83,926	7,678	1,052	17,585	31,451	6,153	8,311
Less than 0.30.....	72	22,642	18,263	964	76	2,264	4,130	253	1,905
0.30-0.39.....	70	19,275	15,726	1,118	139	2,548	4,594	923	1,100
0.40-0.49.....	77	33,592	24,265	2,142	413	4,957	9,200	2,403	2,320
0.50-0.59.....	59	21,325	16,182	1,770	200	3,958	7,171	1,496	1,717
0.60-0.69.....	37	4,097	2,810	422	68	997	1,509	262	126
0.70-0.79.....	33	5,927	3,898	633	77	1,497	2,458	460	543
0.80-0.89.....	13	3,308	2,239	414	35	864	1,695	204	435
0.90-0.99.....	5	353	223	51	8	115	181	33	32
1.00 and over.....	27	983	148	164	36	385	513	119	123
Unclassified ¹	28	205	172	...	...	...	...	...	10
West North Central, total.....	404	50,448	35,191	3,949	624	8,949	13,775	2,747	5,787
Less than 0.30.....	84	11,182	8,662	570	32	1,318	1,827	149	1,921
0.30-0.39.....	56	6,670	5,160	474	66	1,008	1,586	245	634
0.40-0.49.....	62	11,004	7,934	812	73	1,833	3,088	349	1,198
0.50-0.59.....	73	9,299	6,281	790	156	1,812	2,692	673	768
0.60-0.69.....	36	4,597	3,092	421	117	980	1,462	512	270
0.70-0.79.....	24	2,583	1,694	273	66	588	1,000	270	143
0.80-0.89.....	13	1,224	764	143	20	320	514	136	115
0.90-0.99.....	10	1,973	978	200	33	532	751	164	79
1.00 and over.....	31	1,796	591	266	61	558	855	249	655
Unclassified ¹	15	120	35	...	...	...	...	...	4
South Atlantic, total.....	158	43,334	31,103	3,474	378	7,992	10,692	1,880	4,069
Less than 0.30.....	27	11,268	8,933	502	43	1,334	1,797	174	1,765
0.30-0.39.....	31	13,821	9,835	946	109	2,052	2,867	604	851
0.40-0.49.....	24	6,263	4,373	591	46	1,381	1,714	224	483
0.50-0.59.....	28	6,282	4,706	681	70	1,572	2,074	438	412
0.60-0.69.....	10	2,763	1,776	306	44	669	935	175	97
0.70-0.79.....	11	1,146	755	176	23	384	477	90	149
0.80-0.89.....	6	431	278	73	10	174	198	37	44
0.90-0.99.....	1								
1.00 and over.....	20								
East South Central, total.....	176	33,686	23,639	3,083	350	6,711	8,953	1,564	2,519
Less than 0.30.....	30	6,114	4,896	324	26	703	913	130	520
0.30-0.39.....	31	8,408	6,499	640	82	1,446	1,968	382	619
0.40-0.49.....	38	7,244	5,218	718	69	1,520	1,983	271	658
0.50-0.59.....	20	3,529	2,125	386	32	777	1,020	135	169
0.60-0.69.....	12	2,685	1,716	321	32	777	936	144	87
0.70-0.79.....	11	2,756	1,752	323	33	637	1,061	201	160
0.80-0.89.....	11	955	560	142	22	322	374	88	91
0.90-0.99.....	5	1,071	501	125	10	251	407	50	50
1.00 and over.....	13	776	344	104	44	278	291	163	165
Unclassified ¹	5	148	28	...	...	...	...	...	...

¹Represents establishments reporting less than \$500 for wages and salaries.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 9.—GENERAL STATISTICS FOR CRUSHED AND BROKEN STONE ESTABLISHMENTS CLASSIFIED BY THE RATIO OF WAGES AND SALARIES TO VALUE ADDED IN MINING BY INDUSTRY, AND FOR CRUSHED AND BROKEN LIMESTONE ESTABLISHMENTS BY GEOGRAPHIC DIVISIONS: 1954—Continued

(For explanation of column captions, see INTRODUCTION)

Industry, geographic division, and ratio of wages and salaries to value added in mining	Number of establishments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
CRUSHED AND BROKEN LIMESTONE INDUSTRY—Con.									
West South Central, total.....	47	15,168	10,507	1,269	146	3,099	4,214	594	1,435
Less than 0.30.....	7	2,620	1,829	105	9	240	391	19	172
0.30-0.39.....	6	2,283	1,752	142	10	376	531	48	171
0.40-0.49.....	11	3,767	2,907	335	30	837	1,166	126	622
0.50-0.59.....	10	4,507	2,725	436	39	1,057	1,393	164	248
0.60-0.69.....	3	1,922	1,259	230	57	559	697	236	222
0.70-0.79.....	2								
0.80-0.89.....	2								
1.00 and over.....	4	69	35	21	1	30	36	1	...
Unclassified ¹	2								
Mountain, total.....	27	4,386	3,207	304	64	612	1,142	210	112
Less than 0.30.....	8	2,840	2,283	141	43	300	537	138	21
0.30-0.39.....	1								
0.40-0.49.....	6								
0.50-0.59.....	3	193	142	23	...	42	70	...	24
0.70-0.79.....	4	727	445	86	9	156	307	28	39
0.80-0.89.....	3	626	337	54	12	114	228	44	28
0.90-0.99.....	1								
1.00 and over.....	1								
Pacific, total.....	37	6,663	5,055	398	38	800	1,607	189	870
Less than 0.30.....	12	3,212	2,694	139	13	259	588	58	300
0.30-0.39.....	4	2,271	1,536	134	8	289	559	40	241
0.40-0.49.....	4								
0.50-0.59.....	4								
0.60-0.69.....	3	785	608	85	12	177	322	74	322
0.70-0.79.....	2	341	188	40	5	75	138	17	7
0.80-0.89.....	1								
0.90-0.99.....	1								
1.00 and over.....	2	54	29	...	...	...	...	...	...
Unclassified ¹	4								
CRUSHED AND BROKEN GRANITE INDUSTRY									
United States, total.....	101	30,875	22,201	2,344	206	5,607	7,573	1,306	2,698
Less than 0.30.....	26	10,304	8,203	490	44	1,165	1,565	283	921
0.30-0.39.....	12	5,376	3,750	408	23	974	1,216	120	195
0.40-0.49.....	13	6,563	4,861	578	68	1,453	1,872	409	887
0.50-0.59.....	15	5,249	3,534	480	36	1,195	1,663	307	492
0.60-0.69.....	11	1,459	1,059	179	12	401	599	65	54
0.70-0.79.....	1	793	525	120	5	247	397	22	19
0.80-0.89.....	7								
0.90-0.99.....	1								
1.00 and over.....	8	546	221	89	18	172	261	100	97
Unclassified ¹	7	585	48	...	...	...	...	...	33
CRUSHED AND BROKEN SLATE INDUSTRY									
United States, total.....	11	8,162	5,055	464	69	1,198	1,949	420	312
Less than 0.30.....	1	8,162	5,055	464	69	1,198	1,949	420	312
0.30-0.39.....	1								
0.40-0.49.....	3								
0.50-0.59.....	1	402	305	51	12	103	189	53	21
0.60-0.69.....	1								
0.90-0.99.....	1								
1.00 and over.....	3	4,740	3,356	328	40	693	931	196	329
0.30-0.39.....	1								
0.50-0.59.....	8	402	305	51	12	103	189	53	21
0.60-0.69.....	2								
0.80-0.89.....	3								
0.90-0.99.....	1	1,313	706	122	15	287	543	78	200
1.00 and over.....	1								
CRUSHED AND BROKEN MARBLE INDUSTRY									
United States, total.....	18	5,142	3,661	379	52	796	1,120	249	350
Less than 0.30.....	2	4,740	3,356	328	40	693	931	196	329
0.30-0.39.....	1								
0.50-0.59.....	8								
0.60-0.69.....	2	402	305	51	12	103	189	53	21
0.80-0.89.....	3								
0.90-0.99.....	1								
1.00 and over.....	1	1,313	706	122	15	287	543	78	200
0.30-0.39.....	1								
CRUSHED AND BROKEN TRAP ROCK INDUSTRY									
United States, total.....	142	45,471	34,127	2,680	377	6,659	12,089	2,116	3,161
Less than 0.30.....	21	11,460	9,724	281	57	692	1,370	324	576
0.30-0.39.....	25	9,567	7,514	504	112	1,353	2,291	587	915
0.40-0.49.....	28	9,909	7,118	628	117	1,496	2,721	716	643
0.50-0.59.....	24	8,499	6,425	720	36	1,843	3,386	197	442
0.60-0.69.....	10	2,013	1,217	158	13	394	699	75	151
0.70-0.79.....	5	989	723	105	13	266	480	65	25
0.80-0.89.....	6	1,313	706	122	15	287	543	78	200
0.90-0.99.....	2								
1.00 and over.....	12								
Unclassified ¹	9	642	358	35	2	79	175	19	...

¹Represents establishments reporting less than \$500 for wages and salaries.

CRUSHED AND BROKEN STONE

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Table 9.—GENERAL STATISTICS FOR CRUSHED AND BROKEN STONE ESTABLISHMENTS CLASSIFIED BY THE RATIO OF WAGES AND SALARIES TO VALUE ADDED IN MINING BY INDUSTRY, AND FOR CRUSHED AND BROKEN LIMESTONE ESTABLISHMENTS BY GEOGRAPHIC DIVISIONS: 1954—Continued

(For explanation of column captions, see INTRODUCTION)

Industry, geographic division, and ratio of wages and salaries to value added in mining	Number of establishments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
CRUSHED AND BROKEN SANDSTONE INDUSTRY									
United States, total.....	87	31,190	22,913	1,529	182	3,283	5,970	1,084	4,479
Less than 0.30.....	15	18,465	14,332	489	69	1,077	2,156	420	3,559
0.30-0.39.....	10	3,546	3,047	238	26	449	951	191	408
0.40-0.49.....	11	2,449	1,672	172	24	427	671	99	176
0.50-0.59.....	13	3,129	1,640	215	22	465	732	172	153
0.60-0.69.....	7	945	679	120	6	243	396	41	59
0.70-0.79.....	10	1,025	701	163	6	290	504	24	28
0.80-0.89.....	8	1,286	772	122	27	309	512	131	81
1.00 and over.....	4	53	35	10	2	23	48	6	15
Unclassified ¹	9	292	35	...	...	...	...	...	...
CRUSHED AND BROKEN STONE, N.E.C., INDUSTRY									
United States, total.....	95	15,657	10,050	803	79	1,681	3,083	419	576
Less than 0.30.....	21	9,936	6,142	296	56	616	1,072	302	86
0.30-0.39.....	9	2,042	1,513	118	7	248	497	44	138
0.40-0.49.....	11	659	517	62	2	128	224	4	129
0.50-0.59.....	18	544	431	67	2	144	228	4	18
0.60-0.69.....	8	1,099	659	75	7	181	380	39	101
0.70-0.79.....	2	734	562	117	2	246	468	8	12
0.80-0.89.....	3								
0.90-0.99.....	1								
1.00 and over.....	14	338	147	68	3	118	214	18	18
Unclassified ¹	8	305	79	...	...	...	...	...	74

¹Represents establishments reporting less than \$500 for wages and salaries.

Table 10.—HORSEPOWER OF POWER EQUIPMENT USED IN THE CRUSHED AND BROKEN

(For explanation of column

	Industry, geographic division, and State	Aggregate horsepower per production worker	Aggregate horsepower (prime movers and electric motors driven by purchased energy)				
			Total	Loading equipment	Transportation equipment		All other equipment
					Highway type	Other	
CRUSHED AND BROKEN LIMESTONE INDUSTRY							
1	United States, total.....	88	2,183,340	441,754	575,112	306,633	859,841
2	New England.....	101	10,989	2,124	3,653	965	4,247
3	Middle Atlantic.....	82	383,471	71,660	100,966	62,831	148,014
4	Pennsylvania.....	85	264,567	50,915	68,861	48,880	95,911
5	East North Central, total.....	89	680,381	136,009	147,805	108,920	287,647
6	Ohio.....	79	195,191	40,947	34,926	30,547	88,771
7	Indiana.....	97	93,071	20,748	18,957	6,662	46,704
8	Illinois.....	76	165,558	38,176	28,393	25,403	73,586
9	Michigan.....	84	108,777	14,644	12,663	38,776	42,694
10	Wisconsin.....	152	117,784	21,494	52,866	7,532	35,892
11	West North Central.....	120	475,221	94,322	160,027	48,229	172,643
12	Iowa.....	135	149,789	30,421	49,226	13,904	56,238
13	Missouri.....	93	139,843	32,282	42,547	10,919	54,095
14	South Dakota.....	64	6,567	1,701	2,178	450	2,238
15	Kansas.....	148	92,822	16,218	28,379	13,282	34,943
16	South Atlantic.....	70	243,760	58,364	60,749	33,685	90,962
17	Maryland.....	56	15,636	5,942	3,237	400	6,057
18	Virginia.....	80	75,296	13,789	20,832	5,204	35,471
19	West Virginia.....	69	56,026	13,082	8,793	12,585	21,566
20	North Carolina.....	68	14,064	3,423	3,792	1,566	5,283
21	Florida.....	69	69,324	19,340	21,680	11,405	16,899
22	East South Central.....	80	245,401	48,240	64,444	29,689	103,028
23	Tennessee.....	90	100,237	20,618	21,234	15,270	43,115
24	West South Central, total.....	69	87,777	17,633	19,620	16,168	34,356
25	Arkansas.....	83	6,882	985	1,982	1,200	2,715
26	Oklahoma.....	60	33,690	7,616	6,698	3,720	15,656
27	Texas.....	76	47,205	9,032	10,940	11,248	15,985
28	Mountain.....	102	30,887	5,948	10,852	4,361	9,726
29	Montana.....	196	1,960	364	655	...	941
30	Colorado.....	96	6,824	861	2,558	2,159	1,246
31	Utah.....	129	10,489	3,155	4,482	452	2,400
32	Pacific, total.....	64	25,453	7,454	6,996	1,785	9,218
33	Washington.....	119	7,229	1,872	2,848	125	2,384
34	Oregon.....	37	955	560	50	130	215
35	California.....	56	17,269	5,022	4,098	1,530	6,619
CRUSHED AND BROKEN GRANITE INDUSTRY							
36	United States, total.....	72	168,556	35,946	36,976	27,301	68,333
37	New England.....	87	10,519	1,817	735	1,400	6,567
38	Massachusetts.....	115	7,909	1,287	675	1,400	4,547
39	Middle Atlantic (New Jersey).....	250	11,004	1,475	8,060	...	1,469
40	North Central.....	114	4,349	402	1,199	900	1,848
41	South.....	61	112,190	23,551	19,944	19,331	49,364
42	Virginia.....	78	14,651	2,597	3,200	3,169	5,685
43	North Carolina.....	57	38,111	7,762	8,615	6,185	15,549
44	South Carolina.....	68	19,541	5,050	1,565	3,335	9,591
45	Georgia.....	55	25,243	5,232	3,048	3,942	13,021
46	Mountain.....	136	8,044	2,826	4,423	150	645
47	Pacific.....	98	22,450	5,875	2,615	5,520	8,440
48	California.....	103	21,463	5,128	2,475	5,520	8,340
CRUSHED AND BROKEN SLATE INDUSTRY							
49	United States.....	56	25,924	5,108	3,104	340	17,372
CRUSHED AND BROKEN MARBLE INDUSTRY							
50	United States, total.....	34	12,887	2,481	3,808	88	6,510
51	East and South.....	30	9,923	1,758	1,918	85	6,162
52	West.....	60	2,964	723	1,890	3	348

CRUSHED AND BROKEN STONE

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STONE INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954

captions, see INTRODUCTION)

Prime movers (horsepower)							Electric motors (horsepower)							
Total	By type of equipment			By use		Total	By type of equipment			By source of energy				
	Loading equipment	Transportation equipment		All other equipment	Driving generators		Not driving generators	Loading equipment	Transportation equipment	All other equipment	Driven by purchased energy		Driven by energy generated at the establishment	
		Highway type	Other											
1,583,206	388,588	575,112	274,983	344,523	80,735	1,502,471	658,726	62,348	41,272	555,106	600,134	58,592	1	
7,292	1,987	3,653	965	687	...	7,292	3,697	137	...	3,560	3,697	...	2	
235,658	55,396	100,966	51,112	28,184	10,619	225,039	154,318	16,264	11,719	126,335	147,813	6,505	3	
167,692	39,630	68,861	37,216	21,985	6,859	160,833	99,835	11,285	11,664	76,886	96,875	2,960	4	
489,524	118,896	147,805	98,339	124,484	48,458	441,066	231,478	24,362	20,148	186,968	190,857	40,621	5	
120,167	35,552	34,926	27,250	22,439	3,080	117,087	83,044	6,201	7,635	69,208	75,024	8,020	6	
57,831	19,728	18,957	6,662	12,484	1,893	55,938	36,039	1,020	...	35,019	35,240	799	7	
123,091	34,556	28,393	25,119	35,023	8,078	115,013	50,091	4,683	628	44,780	42,467	7,624	8	
79,828	7,679	12,663	31,776	27,710	35,032	44,796	53,070	12,345	11,885	28,840	28,949	24,121	9	
108,607	21,381	52,866	7,532	26,828	375	108,232	9,234	113	...	9,121	9,177	57	10	
425,534	93,004	160,027	46,729	125,774	6,667	418,867	53,109	2,048	1,500	49,561	49,687	3,422	11	
136,432	30,051	49,226	13,404	43,751	3,508	132,924	13,703	370	500	12,833	13,357	346	12	
122,838	31,799	42,547	9,919	38,573	1,602	121,236	18,172	483	1,000	16,689	17,005	1,167	13	
4,845	1,701	2,178	450	516	...	4,845	1,722	...	...	1,722	1,722	...	14
81,811	16,143	28,379	13,282	24,007	280	81,531	11,914	75	...	11,839	11,011	903	15	
158,446	49,175	60,749	29,857	18,665	1,285	157,161	87,687	9,189	3,883	74,615	85,314	2,373	16	
10,239	5,942	3,237	400	660	230	10,009	5,597	...	...	5,597	5,397	200	17
47,111	13,624	20,832	5,123	7,532	870	46,241	30,358	165	117	30,076	28,185	2,173	18	
30,639	5,952	8,793	12,310	3,584	...	30,639	25,387	7,130	294	17,963	25,387	...	19	
9,874	3,358	3,792	1,566	1,158	...	9,874	4,190	65	...	4,125	4,190	...	20	
52,366	17,561	21,680	9,283	3,842	185	52,181	16,958	1,779	2,122	13,057	16,958	...	21	
163,587	42,675	64,444	26,562	29,906	8,896	154,691	85,390	6,468	3,127	75,795	81,814	3,576	22	
68,862	18,025	21,234	15,270	14,333	5,006	63,856	33,776	3,496	...	30,280	31,375	2,401	23	
60,447	15,203	19,620	15,358	10,266	2,153	58,294	28,660	2,430	810	25,420	27,330	1,330	24	
5,301	985	1,982	1,200	1,134	1,200	4,101	1,581	...	...	1,581	1,581	...	25
21,982	6,548	6,698	3,720	5,016	953	21,029	12,693	1,068	...	11,625	11,708	985	26	
33,164	7,670	10,940	10,438	4,116	...	33,164	14,386	1,362	810	12,214	14,041	345	27	
24,787	5,673	10,852	4,361	3,901	1,627	23,160	6,265	275	...	5,990	6,100	165	28	
1,263	364	655	...	244	...	1,263	697	...	...	697	697	...	29
5,672	586	2,558	2,159	369	...	5,672	1,152	275	...	877	1,152	...	30	
8,609	3,155	4,482	452	520	1,502	7,107	1,880	...	...	1,880	1,880	...	31
17,931	6,579	6,996	1,700	2,656	1,030	16,901	8,122	1,175	85	6,862	7,522	600	32	
5,605	1,682	2,848	125	950	...	5,605	1,624	190	...	1,434	1,624	...	33	
815	560	50	130	75	310	505	140	...	...	140	140	...	34
11,511	4,337	4,098	1,445	1,631	720	10,791	6,358	985	85	5,288	5,758	600	35	
105,788	30,551	36,976	27,201	11,060	2,580	103,208	63,395	5,395	100	57,900	62,768	627	36	
4,317	1,667	735	1,400	515	...	4,317	6,202	150	...	6,052	6,202	...	37	
3,527	1,137	675	1,400	315	...	3,527	4,382	150	...	4,232	4,382	...	38	
9,325	1,265	8,060	...	...	...	9,325	1,679	210	...	1,469	1,679	...	39
2,724	402	1,199	900	223	...	2,724	1,625	...	...	1,625	1,625	...	40
67,843	19,816	19,944	19,231	8,852	1,780	66,063	44,974	3,735	100	41,139	44,347	627	41	
9,751	2,512	3,200	3,169	870	160	9,591	4,900	85	...	4,815	4,900	...	42	
25,629	7,392	8,615	6,185	3,437	970	24,659	12,582	370	...	12,212	12,482	100	43	
8,900	3,550	1,565	3,335	450	...	8,900	10,641	1,500	...	9,141	10,641	...	44	
14,307	3,952	3,048	3,942	3,365	575	13,732	11,463	1,280	...	10,183	10,936	527	45	
7,144	2,526	4,423	150	45	...	7,144	900	300	...	600	900	...	46	
14,435	4,875	2,615	5,520	1,425	800	13,635	8,015	1,000	...	7,015	8,015	...	47	
13,598	4,178	2,475	5,520	1,425	800	12,798	7,865	950	...	6,915	7,865	...	48	
4,844	1,400	3,104	340	...	...	4,844	21,080	3,708	...	17,372	21,080	...	49
6,864	2,456	3,808	85	515	...	6,864	6,023	25	3	5,995	6,023	...	50	
4,031	1,758	1,918	85	270	...	4,031	5,892	...	...	5,892	5,892	...	51
2,833	698	1,890	...	245	...	2,833	131	25	3	103	131	...	52	

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 10.—HORSEPOWER OF POWER EQUIPMENT USED IN THE CRUSHED AND BROKEN

Geographic division, industry, and State		Aggregate horsepower per production worker	Aggregate horsepower (prime movers and electric motors driven by purchased energy)				
			Total	Loading equipment	Transportation equipment		All other equipment
					Highway type	Other	
CRUSHED AND BROKEN TRAP ROCK INDUSTRY							
1	United States, total.....	81	216,615	48,637	61,497	18,376	88,105
2	New England, total.....	92	34,429	8,657	5,768	3,852	16,152
3	Massachusetts.....	101	15,592	3,654	3,656	1,329	6,953
4	Connecticut.....	86	18,837	5,003	2,112	2,523	9,199
5	Middle Atlantic, total.....	67	101,064	20,132	28,603	7,603	44,726
6	New York.....	69	14,967	2,104	5,888	1,381	5,594
7	New Jersey.....	63	49,294	11,017	13,531	2,347	22,399
8	Pennsylvania.....	74	36,803	7,011	9,184	3,875	16,733
9	East North Central and South.....	90	21,405	7,221	4,712	1,777	7,695
10	Maryland.....	140	11,369	4,897	3,357	...	3,115
11	Mountain.....	119	8,704	1,450	2,459	1,836	2,959
12	Pacific, total.....	103	51,013	11,177	19,955	3,308	16,573
13	Washington.....	126	23,066	3,957	11,195	1,683	6,231
14	Oregon.....	107	18,134	4,773	5,759	445	7,157
15	California.....	68	9,813	2,447	3,001	1,180	3,185
CRUSHED AND BROKEN SANDSTONE INDUSTRY							
16	United States, total.....	71	107,948	24,053	22,021	12,211	49,663
17	New England (Maine).....	41	3,645	830	1,150	100	1,565
18	Middle Atlantic.....	65	24,706	6,524	4,776	2,835	10,571
19	New York.....	109	6,005	1,399	1,917	...	2,689
20	Pennsylvania.....	57	18,701	5,125	2,859	2,835	7,882
21	North Central.....	59	31,292	6,587	3,467	2,691	18,547
22	Ohio.....	72	8,042	1,444	1,338	...	5,260
23	South Dakota.....	117	9,986	2,340	320	2,391	4,935
24	South Atlantic.....	67	12,305	3,222	805	2,930	5,348
25	South Central.....	24	2,056	700	361	...	995
26	West.....	130	33,944	6,190	11,462	3,655	12,637
27	Montana.....	365	1,824	220	839	...	765
28	California.....	139	25,903	4,713	8,058	3,105	10,027
CRUSHED AND BROKEN STONE, N.E.C., INDUSTRY							
29	United States, total.....	79	63,152	17,710	20,801	3,653	20,988
30	East.....	51	7,191	3,697	1,790	30	1,674
31	South Atlantic.....	52	4,955	1,775	860	...	2,320
32	South Central.....	56	11,255	3,938	2,375	403	4,539
33	Mountain.....	92	5,711	755	3,154	...	1,802
34	Pacific.....	113	34,040	7,545	12,622	3,220	10,653
35	California.....	117	28,630	5,425	11,912	2,900	8,393

CRUSHED AND BROKEN STONE

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STONE INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

Prime movers (horsepower)							Electric motors (horsepower)						
Total	By type of equipment				By use		Total	By type of equipment			By source of energy		
	Loading equipment	Transportation equipment		All other equipment	Driving generators	Not driving generators		Loading equipment	Transportation equipment	All other equipment	Driven by purchased energy	Driven by energy generated at the establishment	
		Highway type	Other										
141,143	41,102	61,497	17,876	20,668	2,062	139,081	76,145	7,652	500	67,993	75,472	673	1
18,492	7,947	5,768	3,852	925	80	18,412	15,937	710	...	15,227	15,937	...	2
8,304	3,069	3,656	1,329	250	...	8,304	7,288	585	...	6,703	7,288	...	3
10,188	4,878	2,112	2,523	675	80	10,108	8,649	125	...	8,524	8,649	...	4
57,904	14,534	28,603	7,603	7,164	662	57,242	43,256	5,598	...	37,658	43,160	96	5
8,910	1,429	5,888	1,381	212	212	8,698	6,153	675	...	5,478	6,057	96	6
27,335	7,476	13,531	2,347	3,981	450	26,885	21,959	3,541	...	18,418	21,959	...	7
21,659	5,629	9,184	3,875	2,971	...	21,659	15,144	1,382	...	13,762	15,144	...	8
14,423	6,221	4,712	1,777	1,713	...	14,423	6,982	1,000	...	5,982	6,982	...	9
8,354	4,897	3,357	...	100	...	8,354	3,015	...	...	3,015	3,015	...	10
7,197	1,450	2,459	1,836	1,452	...	7,197	1,623	...	...	1,623	1,507	116	11
43,127	10,950	19,955	2,808	9,414	1,320	41,807	8,347	344	500	7,503	7,886	461	12
20,581	3,830	11,195	1,683	3,873	225	20,356	2,729	244	...	2,485	2,485	244	13
15,278	4,773	5,759	445	4,301	995	14,283	2,926	...	...	2,926	2,856	70	14
7,268	2,347	3,001	680	1,240	100	7,168	2,692	100	500	2,092	2,545	147	15
73,375	23,369	22,021	11,981	16,004	1,477	71,898	35,428	684	230	34,514	34,573	855	16
3,065	830	1,150	100	985	125	2,940	580	...	...	580	580	...	17
16,671	6,115	4,776	2,835	2,945	55	16,616	8,080	409	...	7,671	8,035	45	18
3,453	1,146	1,917	...	390	...	3,453	2,552	253	...	2,299	2,552	...	19
13,218	4,969	2,859	2,835	2,555	55	13,163	5,528	156	...	5,372	5,483	45	20
14,100	6,397	3,467	2,691	1,545	167	13,933	17,312	190	...	17,122	17,192	120	21
3,207	1,444	1,338	...	425	...	3,207	4,835	...	...	4,835	4,835	...	22
5,676	2,315	320	2,391	650	...	5,676	4,310	25	...	4,285	4,310	...	23
9,992	3,222	805	2,930	3,035	850	9,142	2,763	...	...	2,763	2,313	450	24
1,671	700	361	...	610	...	1,671	385	...	...	385	385	...	25
27,876	6,105	11,462	3,425	6,884	280	27,596	6,308	85	230	5,993	6,068	240	26
1,169	220	839	...	110	...	1,169	655	...	...	655	655	...	27
20,790	4,628	8,058	2,875	5,229	240	20,550	5,353	85	230	5,038	5,113	240	28
48,833	15,370	20,801	3,613	9,049	1,525	47,308	15,259	2,340	40	12,879	14,319	940	29
5,662	2,997	1,790	30	845	...	5,662	1,529	700	...	829	1,529	...	30
3,165	1,775	860	...	530	...	3,165	1,790	...	...	1,790	1,790	...	31
6,290	2,948	2,375	403	564	...	6,290	4,965	990	...	3,975	4,965	...	32
5,589	755	3,154	...	1,680	970	4,619	997	...	...	997	122	875	33
28,127	6,895	12,622	3,180	5,430	555	27,572	5,978	650	40	5,288	5,913	65	34
23,527	4,775	11,912	2,860	3,980	235	23,292	5,168	650	40	4,478	5,103	65	35

Table 11.—NUMBER OF POWER LOADING MACHINES IN THE CRUSHED AND BROKEN STONE INDUSTRIES

	Type of loading equipment	Crushed and broken limestone industry										
		United States		New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific
		1954	1939 ¹									
1	Surface loading equipment, total.....	4,289	1,913	23	665	1,332	1,028	527	441	156	42	75
	By kind of power used:											
2	Steam.....	64	654	...	8	31	2	13	6	4	...	...
3	Electric and Diesel-electric.....	380	426	5	82	136	25	46	47	21	6	12
4	Diesel.....	2,151	833	{	2	295	536	590	324	269	72	26
5	Gasoline and other.....	1,694			16	280	629	411	144	119	59	10	26
6	Power shovels, total.....	2,361	1,360	14	381	698	584	237	289	80	29	49
	By kind of power used:											
7	Steam.....	37	528	...	4	14	1	9	6	3	...	...
8	Electric and Diesel-electric.....	256	338	1	59	94	11	26	30	19	6	10
9	Diesel.....	1,275	494	{	1	188	321	368	140	179	38	18
10	Gasoline and other.....	793			12	130	269	204	62	74	20	5	17
	By dipper or bucket capacity (cubic yards):											
11	Less than 3.....	2,196	1,168	14	346	634	562	223	270	71	28	48
12	3-5 inclusive.....	142	181	...	32	49	22	14	19	5	...	1
13	6-12 inclusive.....	19	11	{	3	11	...	...	...	4	1	...
14	More than 12.....	4			4
15	Dragline excavators, total.....	255	84	...	18	81	46	87	14	8	1	...
	By kind of power used:											
16	Steam.....	2	8	...	...	...	...	2	...	...	...	...
17	Electric and Diesel-electric.....	20	14	...	1	8	3	4	3	1	...	...
18	Diesel.....	137	62	{	8	26	20	70	7	6	...	...
19	Gasoline and other.....	96			...	9	47	23	11	4	1	1
	By dipper or bucket capacity (cubic yards):											
20	Less than 3.....	240	79	...	17	74	46	81	14	7	1	...
21	3-5 inclusive.....	11	4	...	1	3	...	6	...	1	...	...
22	6-12 inclusive.....	4	1	...	...	4	...	...	...	...	...	...
23	Scraper loaders, total.....	489	58	1	48	126	171	65	58	9	3	8
	By kind of power used:											
24	Steam.....	...	1	...	...	...	...	...	...	...	...	...
25	Electric and Diesel-electric.....	18	21	...	1	5	7	5	...	...	...	...
26	Diesel.....	252	36	{	25	51	88	30	45	5	2	6
27	Gasoline and other.....	219			1	22	70	76	30	13	4	1	2
	By rated horsepower:											
28	Less than 10.....	131	16	...	10	28	60	18	9	2	2	2
29	10-25 inclusive.....	63	17	1	8	15	23	6	4	2	1	3
30	26-100 inclusive.....	208	23	...	25	57	64	33	24	4	...	1
31	More than 100.....	87	2	...	5	26	24	8	21	1	...	2
32	Clamshell and orange peel loaders, total.....	216	230	1	68	82	18	22	5	19	1	...
	By kind of power used:											
33	Steam.....	6	92	...	1	3	1	1	...	...	...	...
34	Electric and Diesel-electric.....	15	21	...	6	6	...	2	1	...	...	...
35	Diesel.....	88	117	{	22	32	10	16	...	7	1	...
36	Gasoline and other.....	107			1	39	41	7	3	4	12	...
37	Cranes and hoists, total.....	240	47	3	75	92	23	18	16	11	...	2
	By kind of power used:											
38	Steam.....	19	21	...	3	14	...	1	...	1	...	...
39	Electric and Diesel-electric.....	45	12	3	11	15	3	4	8	1	...	...
40	Diesel.....	92	14	{	27	36	9	10	6	3	...	1
41	Gasoline and other.....	84			...	34	27	11	3	2	6	...	1
42	All other types of equipment, total.....	728	134	4	75	253	186	98	59	29	8	16
	By kind of power used:											
43	Steam.....	...	4	...	...	...	...	...	...	...	...	...
44	Electric and Diesel-electric.....	26	20	1	4	8	1	5	5	...	...	2
45	Diesel.....	307	110	{	25	70	95	58	32	13	5	8
46	Gasoline and other.....	395			2	46	175	90	35	22	16	3	6

See footnotes at end of table.

CRUSHED AND BROKEN STONE

14D-55

IN THE UNITED STATES: 1954 AND 1939, AND BY GEOGRAPHIC DIVISIONS: 1954

Crushed and broken granite industry								Crushed and broken slate industry		Crushed and broken marble industry				
United States		New England	Middle Atlantic	North Central	South	Mountain	Pacific	United States		United States		East and South	West	
1954	1939							1954	1939	1954	1939			
323	163	19	19	5	204	23	53	54	17	24	5	13	11	1
4	36	...	...	...	2	...	2	1	8	3	...	3	...	2
48	47	4	3	...	29	6	6	39	9	1	...	...	1	3
181	80	12	3	2	129	13	22	10	...	5	5	3	2	4
90		3	13	3	44	4	23	4	...	15		7	8	5
186	93	13	9	2	120	9	33	13	14	12	3	5	7	6
2	30	...	...	...	1	...	1	...	7	2	...	2	...	7
30	19	3	...	...	22	1	4	4	7	1	...	...	1	8
109	44	8	3	1	77	7	13	6	...	1	3	1	...	9
45		2	6	1	20	1	15	3	...	8		2	6	10
164	88	12	9	1	107	8	27	13	14	12	3	5	7	11
21	5	1	...	1	13	1	5	...	...	...	...	...	...	12
1	...	...	...	...	...	...	1	...	...	...	...	...	...	13
...	...	...	...	...	...	...	...	...	...	...	...	...	...	14
15	2	...	...	...	14	1	...	2	...	...	...	...	...	15
...	...	...	...	...	...	...	...	...	...	...	...	...	...	16
...	...	...	...	...	...	...	...	...	...	...	...	...	...	17
9	2	...	...	...	9	...	...	2	...	...	...	...	...	18
6		...	...	...	5	1	...	...	...	...	...	...	...	19
14	2	...	...	...	13	1	...	2	...	...	...	...	...	20
1	...	...	...	...	1	...	...	...	...	...	...	...	...	21
...	...	...	...	...	...	...	...	...	...	...	...	...	...	22
32	3	...	2	...	16	7	7	...	...	6	...	6	...	23
...	...	...	...	...	...	...	...	...	...	...	...	...	...	24
5	...	...	...	...	...	5	...	...	...	...	...	...	...	25
17	3	...	...	...	10	2	5	...	...	2	...	2	...	26
10		...	2	...	6	...	2	...	...	4	...	4	...	27
14	1	...	2	...	11	...	1	...	...	1	...	1	...	28
1	...	...	...	...	...	...	1	...	...	...	...	...	...	29
13	2	...	...	...	4	7	2	...	...	5	...	5	...	30
4	...	...	...	...	1	...	3	...	...	...	...	...	...	31
22	30	...	...	1	21	...	...	...	...	1	...	1	...	32
1	3	...	...	...	1	...	...	...	...	...	...	...	...	33
3	8	...	...	...	3	...	...	...	...	...	...	...	...	34
16	19	...	...	...	16	...	...	...	...	...	...	...	...	35
2		...	...	1	1	...	...	...	...	...	...	...	...	36
30	26	4	3	...	18	...	5	39	1	...	...	...	...	37
1	3	...	...	...	...	...	1	1	1	...	...	...	...	38
6	18	1	1	...	2	...	2	35	...	...	...	...	...	39
13	5	3	...	...	10	...	...	2	...	...	...	...	...	40
10		...	2	...	6	...	2	1	...	...	...	...	...	41
38	9	2	5	2	15	6	8	...	2	5	2	1	4	42
...	...	...	...	...	...	...	...	...	...	...	...	...	...	43
4	2	...	2	...	2	...	...	...	2	...	...	...	...	44
17	7	1	...	1	7	4	4	...	...	2	2	...	2	45
17		1	3	1	6	2	4	...	...	3		1	2	46

Table 11.—NUMBER OF POWER LOADING MACHINES IN THE CRUSHED AND BROKEN STONE INDUSTRIES

	Type of loading equipment	Crushed and broken trap rock industry						
		United States		New England	Middle Atlantic	East North Central and South	Mountain	Pacific
		1954	1939 ¹					
1	Surface loading equipment, total.....	490	274	86	222	47	20	115
	By kind of power used:							
2	Steam.....	19	79	4	12	...	...	3
3	Electric and Diesel-electric.....	75	51	6	50	14	...	5
4	Diesel.....	178	144	25	72	19	14	48
5	Gasoline and other.....	218		51	88	14	6	59
6	Power shovels, total.....	278	196	51	103	28	10	86
	By kind of power used:							
7	Steam.....	9	64	2	4	...	...	3
8	Electric and Diesel-electric.....	43	43	6	30	3	...	4
9	Diesel.....	123	89	22	42	16	6	37
10	Gasoline and other.....	103		21	27	9	4	42
	By dipper or bucket capacity (cubic yards):							
11	Less than 3.....	261	184	50	92	28	9	82
12	3-5 inclusive.....	13	12	1	11	...	1	...
13	6-12 inclusive.....	4	...	...	...	...	...	4
14	More than 12.....	...	...	...	...	...	...	...
15	Dragline excavators, total.....	9	6	...	5	1	1	2
	By kind of power used:							
16	Steam.....	...	...	...	...	...	...	...
17	Electric and Diesel-electric.....	3	...	...	3	...	...	...
18	Diesel.....	3	6	...	2	1	...	...
19	Gasoline and other.....	3		...	...	...	1	2
	By dipper or bucket capacity (cubic yards):							
20	Less than 3.....	9	6	...	5	1	1	2
21	3-5 inclusive.....	...	...	...	...	...	...	...
22	6-12 inclusive.....	...	...	...	...	...	...	...
23	Scraper loaders, total.....	51	9	7	28	4	6	6
	By kind of power used:							
24	Steam.....	1	...	1	...	...	...	...
25	Electric and Diesel-electric.....	1	...	...	...	1	...	...
26	Diesel.....	16	9	...	7	...	6	3
27	Gasoline and other.....	33		6	21	3	...	3
	By rated horsepower:							
28	Less than 10.....	20	...	6	11	2	...	1
29	10-25 inclusive.....	...	7	...	...	...	...	...
30	26-100 inclusive.....	16	2	1	9	2	...	4
31	More than 100.....	15	...	...	8	...	6	1
32	Clamshell and orange peel loaders, total.....	29	39	4	22	2	...	1
	By kind of power used:							
33	Steam.....	3	15	...	3	...	...	...
34	Electric and Diesel-electric.....	6	5	...	6	...	...	...
35	Diesel.....	7	19	...	6	1	...	...
36	Gasoline and other.....	13		4	7	1	...	1
37	Cranes and hoists, total.....	59	4	14	37	5	...	3
	By kind of power used:							
38	Steam.....	6	...	1	5	...	...	...
39	Electric and Diesel-electric.....	17	...	...	11	5	...	1
40	Diesel.....	10	4	1	8	...	...	1
41	Gasoline and other.....	26		12	13	...	...	1
42	All other types of equipment, total.....	64	20	10	27	7	3	17
	By kind of power used:							
43	Steam.....	...	...	...	...	...	...	...
44	Electric and Diesel-electric.....	5	3	...	...	5	...	...
45	Diesel.....	19	17	2	7	1	2	7
46	Gasoline and other.....	40		8	20	1	1	10

See footnotes at end of table.

CRUSHED AND BROKEN STONE

14D-57

IN THE UNITED STATES: 1954 AND 1939, AND BY GEOGRAPHIC DIVISIONS: 1954—Continued

Crushed and broken sandstone industry								Crushed and broken stone, n.e.c., industry							
United States		New England	Middle Atlantic	North Central	South Atlantic	South Central	West	United States		East	South Atlantic	South Central	Mountain	Pacific	
1954	1939							1954	1939 ¹						
199	78	8	65	39	29	6	52	179	96	44	23	46	8	58	1
4	32	...	1	...	...	...	3	4	20	1	...	3	...	...	2
17	4	...	11	2	...	...	4	21	16	6	1	10	...	4	3
112	42	{ 5	26	24	27	4	26	74	60	{ 9	9	21	7	28	4
66			27	13	2	2	19	80			13	12	1	26	5
110	60	7	39	20	13	5	26	94	54	23	12	25	3	31	6
2	24	...	1	...	...	...	1	4	13	1	...	3	...	...	7
8	3	...	5	...	...	...	3	8	10	1	...	4	...	3	8
65	33	{ 4	19	14	12	4	12	36	31	{ 4	7	12	3	10	9
35			14	6	1	1	10	46			5	6	...	18	10
105	60	7	39	16	13	5	25	89	53	23	12	24	3	27	11
5	...	...	...	4	...	...	1	5	1	...	...	1	...	4	12
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	13
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	14
11	...	...	3	3	3	...	2	7	6	1	3	1	...	2	15
...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	16
8	...	...	1	3	3	...	1	3	6	{ 1	1	1	...	1	17
3	...	...	2	...	...	...	1	3			2	...	...	1	18
11	...	...	3	3	3	...	2	6	6	1	3	1	...	1	20
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	21
...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	22
19	...	...	3	2	6	...	8	24	8	8	1	8	1	6	23
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	24
2	...	...	1	...	...	...	1	12	4	5	...	6	...	...	25
14	...	...	...	1	6	...	7	8	4	{ 1	...	1	1	5	26
3	...	...	2	1	...	...	...	4			...	1	...	1	27
3	...	...	1	...	1	...	1	4	...	2	1	...	1	...	28
2	...	...	1	...	...	...	1	3	2	1	...	2	...	...	29
10	...	...	1	2	1	...	6	6	6	...	...	2	...	4	30
4	...	...	...	...	4	...	...	11	...	5	...	4	...	2	31
13	14	...	3	3	1	...	6	8	19	...	...	4	...	4	32
2	8	...	...	...	...	...	2	...	6	...	...	...	...	...	33
...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	34
5	5	{	...	3	...	...	2	6	12	{	...	3	...	3	35
6			3	...	1	...	2	2			...	1	...	1	36
15	...	...	7	3	2	...	3	7	3	5	2	...	...	...	37
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	38
2	...	...	2	...	...	...	...	...	1	...	...	...	...	...	39
3	...	...	...	1	2	...	...	1	2	{ 1	...	...	...	...	40
10	...	...	5	2	...	...	3	6			2	...	...	...	41
31	4	1	10	8	4	1	7	39	6	7	5	8	4	15	42
...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	43
5	...	...	3	2	...	...	...	...	...	...	...	...	...	...	44
17	4	{ 1	6	2	4	...	4	20	5	{ 2	1	4	3	10	45
9			1	4	...	1	3	19			4	4	1	5	46

MINERAL INDUSTRIES--INDUSTRY STATISTICS

Table 11.—NUMBER OF POWER LOADING MACHINES IN THE CRUSHED AND BROKEN STONE INDUSTRIES IN THE UNITED STATES: 1954 AND 1939,
AND BY GEOGRAPHIC DIVISIONS: 1954—Continued

Type of loading equipment	Crushed and broken limestone industry								
	United States		Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	Mountain	Pacific
	1954	1939 ¹							
Underground loading equipment, total.....	215	109	36	34	60	20	54	3	8
By kind of power used:									
Electric and Diesel-electric.....	86	95	33	10	4	13	22	...	4
Compressed air.....	7	4	...	1	...	...	...	2	4
Diesel.....	102	10	3	15	55	5	23	1	...
Gasoline and other.....	20	...	...	8	1	2	9	...	...
Shovel loaders requiring a minimum working height of 8 feet or less, total.....	44	8	24	8	2	...	3	2	5
By kind of power used:									
Electric and Diesel-electric.....	27	7	24	1	...	...	1	...	1
Compressed air.....	6	1	...	...	...	...	...	2	4
Diesel.....	7	...	...	3	2	...	2	...	...
Gasoline.....	4	...	...	4	...	...	...	...	...
Shovel loaders requiring a minimum working height of more than 8 feet, total.....	118	78	12	16	38	20	32	...	...
By kind of power used:									
Electric and Diesel-electric.....	45	67	9	7	3	13	13	...	...
Compressed air.....	1	3	...	1	...	...	...	...	...
Diesel.....	61	8	3	4	34	5	15	...	...
Gasoline and other.....	11	...	...	4	1	2	4	...	...
Scraper loaders (including slushers), total.....	33	21	...	...	14	...	16	...	3
By kind of power used:									
Electric and Diesel-electric.....	9	21	...	...	...	...	6	...	3
Diesel.....	19	...	...	...	14	...	5	...	...
Gasoline and other.....	5	...	...	...	...	...	5	...	...
By rated horsepower:									
Less than 10.....	6	...	...	...	...	...	6	...	...
10-25 inclusive.....	3	4	...	...	...	...	...	...	3
26-100 inclusive.....	20	17	...	...	14	...	6	...	...
More than 100.....	4	...	...	...	...	...	4	...	...
Other types of equipment, total.....	20	2	...	10	6	...	3	1	...
By kind of power used:									
Electric and Diesel-electric.....	5	...	...	2	1	...	2	...	...
Diesel.....	15	...	...	8	5	...	1	1	...
Gasoline and other.....	...	2	...	...	...	...	...	...	...
	Crushed and broken marble industry		Crushed and broken trap rock industry		Crushed and broken sandstone industry	Crushed and broken stone, n.e.c., industry			
	United States, 1954 ²	East and South	United States, 1954 ²	Middle Atlantic	United States, 1939 ²	United States, 1954 ²	South Atlantic		
Underground loading equipment, total.....	9	9	3	3	3	4	4		
By kind of power used:									
Electric and Diesel-electric.....	...	...	...	...	3	...	...
Compressed air.....	...	...	3	3	...	4	4		
Diesel.....	9	9	...	...	...	...	...
Gasoline and other.....	...	...	...	...	...	...	...
Shovel loaders requiring a minimum working height of 8 feet or less, total.....	...	...	...	...	...	4	4		
By kind of power used:									
Electric Diesel-electric.....	...	...	...	...	...	...	...
Compressed air.....	...	...	...	...	...	4	4		
Diesel.....	...	...	...	...	...	...	...
Gasoline and other.....	...	...	...	...	...	...	...
Shovel loaders requiring a minimum working height of more than 8 feet, total.....	8	8	3	3	3	...	...
By kind of power used:									
Electric and Diesel-electric.....	...	...	...	...	3	...	...
Compressed air.....	...	...	3	3	...	...	...
Diesel.....	8	8	...	...	...	...	...
Gasoline and other.....	...	...	...	...	...	...	...
Scraper loaders (including slushers), total.....	1	1	...	...	...	...	...
By kind of power used:									
Electric and Diesel-electric.....	...	...	...	...	...	...	...
Diesel.....	1	1	...	...	...	...	...
Gasoline and other.....	...	...	...	...	...	...	...
By rated horsepower:									
Less than 10.....	...	...	...	...	...	...	...
10-25 inclusive.....	...	...	...	...	...	...	...
26-100 inclusive.....	1	1	...	...	...	...	...
More than 100.....	...	...	...	...	...	...	...
Other types of equipment, total.....	...	...	...	...	...	...	...
By kind of power used:									
Electric and Diesel-electric.....	...	...	...	...	...	...	...
Diesel.....	...	...	...	...	...	...	...
Gasoline and other.....	...	...	...	...	...	...	...

¹Includes equipment at quarries operated as part of manufacturing establishments, such as quarries at cement and lime plants. For the crushed and broken limestone industry, approximately 17 percent of all equipment was at such quarries. No data are available on loading equipment at such quarries in 1954. ²No underground loading equipment was reported for 1939 for the crushed and broken marble, crushed and broken trap rock, and crushed and broken stone, n.e.c. industries; for 1954 for the crushed and broken sandstone industry; or for either year for the crushed and broken granite and crushed and broken slate industries.

Table 12.—MATERIALS, SUPPLIES, FUELS, AND ELECTRIC ENERGY USED IN THE CRUSHED AND BROKEN STONE INDUSTRIES,
BY GEOGRAPHIC DIVISIONS AND STATES: 1954

(For explanation of line captions, see INTRODUCTION)

Item	Unit of measure for quantity	Crushed and broken limestone industry									
		United States, total		New England		Middle Atlantic				East North Central, total	
		Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Total		Pennsylvania		Quantity	Cost (\$1,000)
						Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)		
Minerals received for preparation.	1,000 short tons.	2,254	1,895	...	...	457	392	(D)		634	498
Supplies used.....	xxx	xxx	58,726	xxx	299	xxx	9,702	xxx	6,636	xxx	19,096
Fuels used, total.....	Million kwh equivalent.	4,412	11,913	9	40	593	1,682	337	1,053	1,431	3,642
Coal.....	1,000 short tons.	99	835	...	...	18	162	4	38	64	525
Distillate fuel oil.....	1,000 barrels...	1,021	4,725	(2)	3	139	667	93	438	268	1,302
Residual fuel oil.....	do.....	35	154	...	...	5	22	3	12	20	84
Gas (natural and manufactured).	Million cu. ft...	1,197	279	...	...	23	23	22	22	85	39
Other fuels.....	xxx	xxx	5,920	xxx	37	xxx	808	xxx	543	xxx	1,692
Electric energy purchased.....	Million kwh.....	544	8,634	3	58	129	2,028	77	1,268	153	2,793
Electric energy generated and used	do.....	68	xxx	...	xxx	8	xxx	1	xxx	48	xxx
East North Central—Continued											
		Ohio		Indiana		Illinois		Michigan		Wisconsin	
		Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
Minerals received for preparation.	1,000 short tons.	(D) xxx	6,072	(D) xxx	2,432	xxx	5,135	xxx	4,400	(D) xxx	1,555
Supplies used.....	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Fuels used, total.....	Million kwh equivalent.	319	905	171	520	342	989	429	645	170	583
Coal.....	1,000 short tons.	10	79	2	13	6	52	45	379	1	2
Distillate fuel oil.....	1,000 barrels...	71	352	37	158	91	432	35	178	34	182
Residual fuel oil.....	do.....	7	41	2	5	5	17	2	8	4	13
Gas (natural and manufactured).	Million cu. ft...	21	17	14	5	42	11	...	...	8	6
Other fuels.....	xxx	xxx	416	xxx	339	xxx	477	xxx	80	xxx	380
Electric energy purchased.....	Million kwh.....	68	1,188	21	453	42	708	15	305	7	139
Electric energy generated and used	do.....	10	xxx	1	xxx	2	xxx	35	xxx	...	xxx
West North Central											
		Total		Iowa		Missouri		South Dakota		Kansas	
		Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
Minerals received for preparation.	1,000 short tons.	225	121	(D) xxx	4,282	(D) xxx	2,912	xxx	445	xxx	2,133
Supplies used.....	xxx	xxx	10,908	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Fuels used, total.....	Million kwh equivalent.	930	3,043	300	1,021	314	1,003	18	53	129	397
Coal.....	1,000 short tons.	(2)	9	(2)	2	...	...	...	...	13	106
Distillate fuel oil.....	1,000 barrels...	298	1,423	98	490	94	414	4	20	43	210
Residual fuel oil.....	do.....	5	26	...	...	5	26	...	...	1	11
Gas (natural and manufactured).	Million cu. ft...	60	13	1	(2)	17	5	1	33	7	574
Other fuels.....	xxx	xxx	1,572	xxx	529	xxx	558	xxx	32	xxx	180
Electric energy purchased.....	Million kwh.....	34	671	7	157	12	232	1	23	10	174
Electric energy generated and used	do.....	4	xxx	1	xxx	1	xxx	...	xxx	1	xxx
South Atlantic—Continued											
		Maryland		Virginia		West Virginia		North Carolina		Florida	
		Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
Minerals received for preparation.	1,000 short tons.	...	...	(D) xxx	1,622	xxx	1,677	xxx	452	(D) xxx	2,115
Supplies used.....	xxx	xxx	1,313	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Fuels used, total.....	Million kwh equivalent.	109	170	168	344	74	186	17	62	156	501
Coal.....	1,000 short tons.	6	30	4	38	3	21	...	...	...	17
Distillate fuel oil.....	1,000 barrels...	11	50	55	131	21	106	5	26	58	253
Residual fuel oil.....	do.....	1	3	...	...	...	...	(2)	3	(2)	5
Gas (natural and manufactured).	Million cu. ft...	90	30	...	...	...	...	...	...	...	...
Other fuels.....	xxx	xxx	57	xxx	175	xxx	59	xxx	33	xxx	226
Electric energy purchased.....	Million kwh.....	2	73	30	444	26	341	4	53	22	369
Electric energy generated and used	do.....	...	xxx	...	xxx	...	xxx	...	xxx	...	xxx

See footnotes at end of table.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 12.—MATERIALS, SUPPLIES, FUELS, AND ELECTRIC ENERGY USED IN THE CRUSHED AND

	Item	Unit of measure for quantity	Crushed and broken limestone industry—Continued							
			East South Central				West South Central			
			Total		Tennessee		Total		Arkansas	
			Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
1	Minerals received for preparation	1,000 short tons.	(D)	} 6,092	...	{ 2,215	(D)	} 3,328	...	{ 72
2	Supplies used.....	.....	xxx		xxx		xxx		xxx	
3	Fuels used, total.....	Million kwh equivalent.	463	1,390	189	603	229	510	6	24
4	Coal.....	1,000 short tons.	4	27	3	21	(2)	1	...	...
5	Distillate fuel oil.....	1,000 barrels....	102	473	41	199	40	172	2	14
6	Residual fuel oil.....	.....do.....	3	9	...	...	...	...	...	...
7	Gas (natural and manufactured)	Million cu. ft....	133	29	...	...	322	88	...	...
8	Other fuels.....	.....	xxx	852	xxx	383	xxx	249	xxx	10
9	Electric energy purchased.....	Million kwh.....	88	1,135	26	319	33	388	2	26
10	Electric energy generated and used.....	.....do.....	4	xxx	3	xxx	3	xxx	...	xxx
Crushed and broken limestone industry—Continued										
Pacific										
			Total		Washington		Oregon		California	
			Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
1	Minerals received for preparation	1,000 short tons.	(D)	} 1,340	(D)	{ 164	(D)	} 23	...	{ 1,153
2	Supplies used.....	.....	xxx		xxx		xxx		xxx	
3	Fuels used, total.....	Million kwh equivalent.	45	150	8	29	3	7	34	114
4	Coal.....	1,000 short tons.	...	...	...	...	...	...	...	...
5	Distillate fuel oil.....	1,000 barrels....	11	52	2	10	1	3	8	39
6	Residual fuel oil.....	.....do.....	1	2	...	...	...	...	1	2
7	Gas (natural and manufactured)	Million cu. ft....	...	...	...	...	...	...	...	...
8	Other fuels.....	.....	xxx	96	xxx	19	xxx	4	xxx	73
9	Electric energy purchased.....	Million kwh.....	7	109	1	18	...	4	6	87
10	Electric energy generated and used.....	.....do.....	1	xxx	...	xxx	...	xxx	1	xxx
Crushed and broken granite industry—Continued										
South										
			Virginia		North Carolina		South Carolina		Georgia	
			Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
1	Minerals received for preparation	1,000 short tons.	...	...	...	...	...	...	...	...
2	Supplies used.....	.....	xxx	533	xxx	2,131	xxx	824	xxx	1,727
3	Fuels used, total.....	Million kwh equivalent.	23	73	50	170	27	102	45	137
4	Coal.....	1,000 short tons.	(2)	3	...	...	(2)	4	1	3
5	Distillate fuel oil.....	1,000 barrels....	12	59	15	81	5	26	13	74
6	Residual fuel oil.....	.....do.....	...	...	6	34	3	18	1	6
7	Gas (natural and manufactured)	Million cu. ft....	...	...	...	...	...	...	...	...
8	Other fuels.....	.....	xxx	11	xxx	55	xxx	54	xxx	54
9	Electric energy purchased.....	Million kwh.....	5	78	16	224	12	133	12	153
10	Electric energy generated and used.....do.....	...	xxx	...	xxx	...	xxx	1	xxx

See footnotes at end of table.

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[illegible]

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 12.—MATERIALS, SUPPLIES, FUELS, AND ELECTRIC ENERGY USED IN THE CRUSHED AND

Item		Unit of measure for quantity	Crushed and broken trap rock industry									
			United States, total		New England							
					Total		Massachusetts		Connecticut			
			Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)		
1	Minerals received for preparation.	1,000 short tons.	(D)	7,600	{	...	...	...	...	...	...
2	Supplies used.....	.....	xxx		xxx	976	xxx	392	xxx	584		
3	Fuels used, total.....	Million kwh equivalent.	447	1,409	41	139	12	47	29	92		
4	Coal.....	1,000 short tons.	6	49	...	...	...	...	...	...
5	Distillate fuel oil.....	1,000 barrels....	96	456	13	53	1	5	12	48		
6	Residual fuel oil.....	.....do.....	18	72	...	...	...	...	...	...
7	Gas (natural and manufactured).	Million cu. ft...	9	11	(2)	8	...	...	(2)	8		
8	Other fuels.....	.....	xxx	821	xxx	78	xxx	42	xxx	36		
9	Electric energy purchased.....	Million kwh.....	60	1,148	9	234	4	108	5	126		
10	Electric energy generated and used	.....do.....	1	xxx	...	xxx	...	xxx	...	xxx		
Crushed and broken trap rock industry—Continued												
			Mountain		Pacific							
					Total		Washington		Oregon		California	
			Quan- tity	Cost (\$1,000)	Quan- tity	Cost (\$1,000)	Quan- tity	Cost (\$1,000)	Quan- tity	Cost (\$1,000)	Quan- tity	Cost (\$1,000)
1	Minerals received for preparation.	1,000 short tons.	...	...	...	...	...	...	...	...	...	...
2	Supplies used.....	.....	xxx	208	xxx	1,037	xxx	428	xxx	352	xxx	257
3	Fuels used, total.....	Million kwh equivalent.	16	59	94	329	33	125	40	132	21	72
4	Coal.....	1,000 short tons.	...	...	...	...	...	...	...	...	...	...
5	Distillate fuel oil.....	1,000 barrels....	7	45	23	116	7	39	13	62	3	15
6	Residual fuel oil.....	.....do.....	1	6	...	...	...	...	...	...	...	...
7	Gas (natural and manufactured).	Million cu. ft...	...	...	7	3	...	...	...	7	3	
8	Other fuels.....	.....	xxx	8	xxx	210	xxx	86	xxx	70	xxx	54
9	Electric energy purchased.....	Million kwh.....	(2)	8	7	93	2	27	2	25	3	41
10	Electric energy generated and used	.....do.....	...	xxx	1	xxx	...	xxx	1	xxx	...	xxx
Crushed and broken sandstone industry—Continued												
			South Atlantic		South Central		West					
							Total		Montana		California	
			Quan- tity	Cost (\$1,000)	Quan- tity	Cost (\$1,000)	Quan- tity	Cost (\$1,000)	Quan- tity	Cost (\$1,000)	Quan- tity	Cost (\$1,000)
1	Minerals received for preparation.	1,000 short tons.	...	...	...	...	...	...	...	...	...	...
2	Supplies used.....	.....	xxx	736	xxx	143	xxx	406	xxx	18	xxx	306
3	Fuels used, total.....	Million kwh equivalent.	34	101	7	19	57	130	1	3	51	107
4	Coal.....	1,000 short tons.	...	...	...	...	...	...	...	...	...	...
5	Distillate fuel oil.....	1,000 barrels....	14	60	2	7	15	61	...	...	13	46
6	Residual fuel oil.....	.....do.....	...	...	...	...	(2)	1	(2)	1	...	...
7	Gas (natural and manufactured).	Million cu. ft...	...	...	...	...	55	12	...	...	55	12
8	Other fuels.....	.....	xxx	41	xxx	12	xxx	56	xxx	2	xxx	49
9	Electric energy purchased.....	Million kwh.....	1	27	(2)	9	3	56	(2)	1	3	50
10	Electric energy generated and used	.....do.....	1	xxx	...	xxx	...	xxx	...	xxx	...	xxx

D Withheld to avoid approximately disclosing figures of individual companies.

¹Includes the cost of contract work.²Less than one-half of the unit of measure specified.

CRUSHED AND BROKEN STONE

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BROKEN STONE INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954--Continued

Crushed and broken trap rock industry--Continued

Middle Atlantic								East North Central and South			
Total		New York		New Jersey		Pennsylvania		Total		Maryland	
Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
(D) xxx }	4,520	{ ... xxx	463	(D) xxx }	2,550	{ ... xxx	1,507	... xxx	859	... xxx	156
243	726	16	62	151	458	76	206	53	156	18	45
6	48	(2)	1	5	42	1	5	(2)	1	...	...
29	135	2	13	14	64	13	58	24	107	7	22
17	66	1	6	1	3	15	57	...	...	...	...
2	(2)	2	(2)	...	...	...	...	...	...	...	...
xxx	477	xxx	42	xxx	349	xxx	86	xxx	48	xxx	23
38	706	8	153	20	337	10	216	6	107	2	41
...	xxx	...	xxx	...	xxx	...	xxx	...	xxx	...	xxx

Crushed and broken sandstone industry

United States, total		New England (Maine)		Middle Atlantic						North Central					
				Total		New York		Pennsylvania		Total		Ohio		South Dakota	
Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
(D) xxx }	6,636	{ ... xxx	52	... xxx	598	... xxx	69	... xxx	529	(D) xxx }	4,701	{ ... xxx	371	(D) xxx }	669
365	890	3	14	53	191	4	20	49	171	211	435	71	96	16	53
5	32	...	...	(2)	1	...	...	(2)	1	5	31	5	28	...	...
119	476	1	7	11	54	(2)	3	11	51	76	287	4	16	5	23
(2)	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
134	57	...	...	...	...	...	...	...	...	79	45	79	45	...	...
xxx	324	xxx	7	xxx	136	xxx	17	xxx	119	xxx	72	xxx	7	xxx	30
28	542	(2)	6	4	101	2	39	2	62	20	343	1	95	3	53
1	xxx	...	xxx	...	xxx	...	xxx	...	xxx	...	xxx	...	xxx	...	xxx

Crushed and broken stone, n.e.c., industry

United States, total		East		South Atlantic		South Central		Mountain		Pacific			
										Total		California	
Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
... xxx	4,646	... xxx	189	... xxx	196	... xxx	2,605	... xxx	62	... xxx	1,594	... xxx	1,518
178	395	9	47	21	56	68	81	13	48	67	163	58	129
(2)	2	(2)	1	...	...	(2)	1	...	...	...	...	...	...
23	113	(2)	8	10	41	2	8	2	9	9	47	7	33
...
278	66	...	...	...	...	181	35	...	...	97	31	97	31
xxx	214	xxx	38	xxx	15	xxx	37	xxx	39	xxx	85	xxx	65
15	213	(2)	29	1	21	9	94	(2)	2	5	67	5	62
1	xxx	...	xxx	...	xxx	...	xxx	1	xxx	...	xxx	...	xxx

Table 13.—WATER USE IN THE CRUSHED AND BROKEN STONE INDUSTRIES,

(For explanation of column

	Industry, geographic division, and State	Number of production and devel- opment workers	Value added in mining (\$1,000)	Water intake (except mine water)			Water discharged (except mine water) (million gallons)
				Million gallons	Million gallons per production worker ¹	Gallons per dollar value added	
CRUSHED AND BROKEN LIMESTONE INDUSTRY							
1	United States, total.....	24,925	239,604	34,821	1.40	145	33,913
2	New England.....	109	735	28	0.26	38	27
3	Middle Atlantic.....	4,661	46,241	11,247	2.41	243	11,084
4	Pennsylvania.....	3,122	27,077	8,855	2.84	327	8,797
5	East North Central, total.....	7,678	83,926	11,177	1.46	133	10,740
6	Ohio.....	2,469	26,056	1,313	0.53	50	1,141
7	Indiana.....	960	8,495	361	0.38	42	157
8	Illinois.....	2,171	27,396	418	0.19	15	358
9	Michigan.....	1,301	16,030	8,972	6.90	560	8,972
10	Wisconsin.....	777	5,949	113	0.15	19	112
11	West North Central.....	3,949	35,191	862	0.22	24	777
12	Iowa.....	1,110	11,266	482	0.43	43	473
13	Missouri.....	1,510	12,565	24	0.02	2	18
14	South Dakota.....	103	682	32	0.31	47	30
15	Kansas.....	627	6,197	287	0.46	46	228
16	South Atlantic.....	3,474	31,103	7,129	2.05	229	7,034
17	Maryland.....	279	3,807	1	(²)	(³)	1
18	Virginia.....	936	6,056	396	0.42	65	366
19	West Virginia.....	807	6,538	604	0.75	92	603
20	North Carolina.....	207	2,044	53	0.26	26	...
21	Florida.....	999	10,469	5,928	5.93	566	5,926
22	East South Central.....	3,083	23,639	4,010	1.30	170	4,007
23	Tennessee.....	1,110	8,657	3,794	3.42	438	3,791
24	West South Central, total.....	1,269	10,507	284	0.22	27	178
25	Arkansas.....	83	574	110	1.33	192	88
26	Oklahoma.....	561	4,505	66	0.12	15	55
27	Texas.....	625	5,428	108	0.17	20	35
28	Mountain.....	304	3,207	22	0.07	7	20
29	Colorado.....	71	844	2	0.03	2	...
30	Utah.....	81	702	4	0.05	6	4
31	Pacific.....	398	5,055	62	0.16	12	46
32	Washington.....	61	723	24	0.39	33	24
33	California.....	311	4,109	38	0.12	9	22
CRUSHED AND BROKEN GRANITE INDUSTRY							
34	United States, total.....	2,344	22,201	2,224	0.95	100	2,054
35	New England.....	121	1,056	10	0.08	10	10
36	Massachusetts.....	69	688	8	0.12	12	8
37	Middle Atlantic (New Jersey).....	44	1,065	1	0.02	1	1
38	North Central.....	38	283	70	1.84	248	70
39	South.....	1,854	16,262	2,123	1.15	131	1,959
40	Virginia.....	187	1,452	324	1.73	223	324
41	North Carolina.....	666	6,432	489	0.73	76	489
42	South Carolina.....	287	2,167	363	1.26	168	345
43	Georgia.....	457	4,201	744	1.63	177	744
44	Pacific.....	228	2,916	20	0.09	7	14
45	California.....	209	2,823	20	0.10	7	14
CRUSHED AND BROKEN SLATE INDUSTRY							
46	United States.....	464	5,055	110	0.24	22	99
CRUSHED AND BROKEN MARBLE INDUSTRY							
47	United States.....	379	3,661	11	0.03	3	11
48	East and South.....	330	3,377	11	0.04	3	11

See footnotes at end of table.

CRUSHED AND BROKEN STONE

14D-65

BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued
captions, see INTRODUCTION)

Mine water (million gallons)		Gross water use, including recircu- lation (million gallons)	Percent of total water intake (except mine water) by principal source							
Used	Drained and dis- charged		Public water systems	Company surface water systems	Company ground water systems	Combined public water and company surface water systems	Combined public water and company ground water systems	Combined company surface and ground water systems	Not specified	
18,789	36,901	57,639	3	53	21	...	...	4	19	1
...	53	28	32	68	...	...	...	...	...	2
11,056	22,634	23,007	4	19	23	...	...	1	53	3
11,049	12,816	20,504	...	2	29	...	...	1	68	4
2,083	7,677	14,348	5	77	6	...	...	10	2	5
477	1,548	2,342	38	24	38	...	...	...	...	6
1,409	3,499	2,232	...	10	33	...	...	...	57	7
196	1,985	614	7	91	2	...	...	...	...	8
...	536	8,972	...	88	...	...	...	12	...	9
1	109	188	1	7	92	...	...	...	...	10
105	666	1,839	1	84	11	...	...	...	4	11
30	587	561	...	99	...	...	...	...	1	12
...	...	24	21	4	75	...	...	...	...	13
...	...	32	...	...	100	...	...	...	...	14
...	4	1,110	...	83	17	...	...	...	...	15
4,369	3,299	12,036	...	93	1	...	...	3	3	16
...	...	1	...	...	100	...	...	...	...	17
15	33	435	...	30	1	...	...	56	13	18
365	913	1,444	...	100	...	...	...	...	...	19
335	205	388	...	100	...	...	...	...	...	20
3,654	2,148	9,583	...	97	1	...	...	...	2	21
1,072	2,371	5,094	1	4	94	...	...	...	1	22
594	591	4,388	...	...	99	...	...	...	1	23
53	52	1,149	21	50	8	...	...	10	11	24
...	...	110	...	100	...	...	...	...	...	25
...	...	69	...	50	5	...	...	...	45	26
53	52	970	55	...	17	...	...	28	...	27
6	12	31	...	9	91	...	...	...	...	28
...	...	2	...	100	...	...	...	...	...	29
...	...	7	...	...	100	...	...	...	...	30
45	137	107	...	16	71	...	13	...	...	31
...	...	24	...	...	100	...	...	...	...	32
45	137	83	...	26	53	...	21	...	...	33
991	757	3,836	8	80	...	...	...	8	4	34
...	...	10	10	...	...	50	...	...	40	35
...	...	8	12	...	...	63	...	...	25	36
4	4	7	...	...	100	...	...	...	...	37
14	5	128	...	...	...	...	...	100	...	38
904	679	3,602	9	82	...	...	...	5	4	39
115	115	519	...	100	...	...	...	...	...	40
609	259	1,336	...	84	...	...	...	...	16	41
170	247	567	49	51	...	...	...	...	...	42
10	58	817	...	85	...	...	...	15	...	43
69	69	89	...	100	...	...	...	...	...	44
69	69	89	...	100	...	...	...	...	...	45
9	36	140	1	51	...	...	...	26	22	46
...	...	11	...	91	9	...	...	...	...	47
...	...	11	...	91	9	...	...	...	...	48

Table 13.—WATER USE IN THE CRUSHED AND BROKEN STONE INDUSTRIES
(For explanation of column

	Industry, geographic division, and State	Number of production and devel- opment workers	Value added in mining (\$1,000)	Water intake (except mine water)			Water discharged (except mine water) (million gallons)
				Million gallons	Million gallons per production worker ¹	Gallons per dollar value added	
CRUSHED AND BROKEN TRAP ROCK INDUSTRY							
1	United States, total.....	2,680	34,127	1,018	0.38	30	987
2	New England, total.....	374	4,827	122	0.33	25	118
3	Massachusetts.....	154	1,676	57	0.37	34	53
4	Connecticut.....	220	3,151	65	0.30	21	65
5	Middle Atlantic, total.....	1,498	21,086	745	0.50	35	729
6	New York.....	218	2,797	425	1.95	152	425
7	New Jersey.....	784	14,093	227	0.29	16	219
8	Pennsylvania.....	496	4,196	93	0.19	22	85
9	East North Central and South.....	239	2,909	1	(²)	(³)	1
10	Maryland.....	81	1,244	1	0.01	1	1
11	Mountain.....	73	839	1	0.01	1	1
12	Pacific, total.....	496	4,466	149	0.30	33	138
13	Washington.....	183	1,545	5	0.03	3	1
14	Oregon.....	169	1,583	6	0.04	4	1
15	California.....	144	1,338	138	0.96	103	136
CRUSHED AND BROKEN SANDSTONE INDUSTRY							
16	United States, total.....	1,529	22,913	1,143	0.75	50	947
17	New England (Maine).....	89	505	...	...	...	...
18	Middle Atlantic, total.....	383	2,835	198	0.52	70	117
19	New York.....	55	514	57	1.04	111	53
20	Pennsylvania.....	328	2,321	141	0.43	61	64
21	North Central.....	526	11,788	825	1.57	70	716
22	Ohio.....	111	1,442	482	4.34	334	402
23	South Dakota.....	85	809	147	1.73	182	147
24	South Atlantic.....	185	3,686	5	0.03	1	5
25	South Central.....	85	507	91	1.07	179	91
26	West.....	261	3,592	24	0.09	7	18
27	California.....	187	2,998	23	0.12	8	18
CRUSHED AND BROKEN STONE, N.E.C., INDUSTRY							
28	United States, total.....	803	10,050	434	0.54	43	434
29	East.....	142	838	253	1.78	302	253
30	South Atlantic.....	95	1,060	...	...	...	...
31	South Central.....	202	3,823	114	0.56	30	114
32	Pacific.....	302	4,139	67	0.22	16	67
33	California.....	244	3,586	10	0.04	3	10

¹For computations of water intake per production worker, including mine water used, see table 3.²Less than 5,000 gallons.³Less than one-half gallon.

CRUSHED AND BROKEN STONE

14D-67

BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued
captions, see INTRODUCTION)

Mine water (million gallons)		Gross water use, including recircu- lation (million gallons)	Percent of total water intake (except mine water) by principal source							
Used	Drained and dis- charged		Public water systems	Company surface water systems	Company ground water systems	Combined public water and company surface water systems	Combined public water and company ground water systems	Combined company surface and ground water systems	Not specified	
83	582	1,288	5	43	38	3	...	5	6	1
34	29	200	22	7	52	19	...	...	...	2
...	...	64	44	14	2	40	...	...	...	3
34	29	136	3	...	97	...	...	...	...	4
47	79	935	4	58	31	...	...	7	...	5
...	...	425	...	100	...	...	...	...	...	6
...	...	227	4	...	96	...	...	...	...	7
47	79	283	12	33	10	...	...	45	...	8
...	...	1	100	...	...	...	...	...	...	9
...	...	1	100	...	...	...	...	...	...	10
...	473	1	...	...	100	...	...	...	...	11
2	1	151	1	3	59	...	...	...	37	12
...	...	5	20	...	...	...	...	...	80	13
2	1	8	...	83	...	...	...	...	17	14
...	...	138	...	...	64	...	...	...	36	15
277	335	2,319	10	51	23	...	...	16	...	16
...	...	...	...	...	...	...	...	...	...	17
5	24	262	1	25	45	...	...	28	1	18
...	...	99	...	...	...	...	...	98	2	19
5	24	163	1	35	64	...	...	...	...	20
...	39	1,665	11	64	10	...	...	15	...	21
...	...	1,235	...	100	...	...	...	...	...	22
...	39	223	...	16	...	...	...	84	...	23
272	272	277	...	100	...	...	...	...	...	24
...	...	91	...	1	99	...	...	...	...	25
...	...	24	96	4	...	...	...	...	...	26
...	...	23	100	...	...	...	...	...	...	27
9	...	672	1	77	2	...	...	7	13	28
...	...	404	1	99	...	...	...	...	...	29
9	...	9	...	...	...	...	...	...	...	30
...	...	192	1	74	...	...	...	25	...	31
...	...	67	...	...	15	...	...	...	85	32
...	...	10	...	...	100	...	...	...	...	33

SAND AND GRAVEL

14E-1

Sand and Gravel

This report shows 1954 Census of Mineral Industries statistics for establishments classified in Industry 1441, Sand and Gravel. This industry comprises establishments primarily engaged in operating sand and gravel quarries, pits, and dredges, and in washing, screening, and otherwise preparing sand and gravel for construction and other special uses such as glass-making, molding, and abrasives. Separate subindustry statistics have been tabulated for 1954, as for 1939 and 1929, for establishments primarily engaged in producing "Common sand and gravel," "Glass sand," and "Foundry sand."

Census figures for the sand and gravel industry exclude for 1954, as for previous years, data on production by Federal, State, and local governments. According to the Bureau of Mines, "government and contractor" operations, principally of this type, produced about 29 percent of all sand and gravel in 1954, and 48 percent of the total in 1939. Some of the sand and gravel covered in the censuses, however, is for government use. For 1954, it was indicated for establishments in the common sand and gravel subindustry that about 13 percent of their sand and gravel production was sold under contract to Federal, State, and local governments and that about 6 percent was for use by the reporting company as contractor or subcontractor on Federal, State, and local government projects (see table 5C.)

Establishments included in the 1954 minerals census, as in previous minerals censuses, represent only establishments primarily engaged in producing sand and gravel. Establishments engaged in producing sand and gravel as a secondary activity in conjunction with the production of ready-mixed concrete, or with asphalt paving mixtures, precast concrete products, or other manufactured products are included in the Censuses of Business or Manufactures, and only the product data for them are included in tables 1B, 5A, and 5B of this report. Reported shipments from such operations were about 11 million tons valued at about \$12 million as compared with shipments of 395 million tons valued at \$409 million from all establishments reported which were classified in the sand and gravel industry, and 6 million tons valued at \$5 million produced as secondary products in other mineral industries. Reported production of sand and gravel at such manufacturing or business establishments amounted to about 21 million tons as compared with total production covered in the 1954 economic censuses of about 429 million. These reported production figures, however, may represent significant undercoverage of sand and gravel produced and used by the same establishment in making ready-mixed concrete. The report form used in the 1954 Census of Business did not provide separately for reporting such mining at ready-mixed concrete plants. The only source of information available on the incidence of such operations was records for previous years of the Bureau of Mines. Insofar as such records indicated sand or gravel production, the minerals census form was used to obtain mining data for ready-mixed concrete establishments.

Coverage of sand and gravel mines and pits differed somewhat in 1954 from previous years: (A) In 1954, all known establishments with one or more employees or proprietors performing manual labor were included if the operation was otherwise within the scope of the minerals census. For 1939, common sand and gravel establishments that produced less than 15,000 tons were excluded unless reported principal expenses or cost of

buildings, machinery, and equipment for such operations amounted to \$15,000 or more. For 1929, all common sand and gravel establishments that produced less than 25,000 tons were excluded. In 1954, about 3 percent of the total common sand and gravel produced was from establishments with output of less than 15,000 tons each. (B) Establishments engaged in producing only unprepared sand and gravel are included for 1954 but excluded for earlier years. Unprepared sand and gravel reported in the 1939 Census amounted to only about 4 percent of reported production as compared with about 11 percent of reported production covered in the 1954 census when producers of only unprepared sand and gravel were included. (C) Operations of companies producing sand and gravel exclusively for their own use, such as construction companies and railroads, were included for 1954 if separate records for these mining activities were available; all such operations were excluded for earlier years.

The total value of shipments of the sand and gravel industry in 1954 was \$466 million of which primary products of this industry amounted to \$409 million and secondary products, products purchased and resold, and receipts for services amounted to \$57 million. The secondary product with largest total value was ready-mixed concrete, amounting to \$33 million. Of the total value of shipments, the common sand and gravel subindustry accounted for \$436 million; the glass sand subindustry, \$19 million; and the foundry sand subindustry, \$12 million. Almost all of the secondary products reported were in the common sand and gravel subindustry. Secondary products in the glass sand and foundry sand subindustries amounted to less than 2 percent of the total value of shipments in each case.

Approximately 165 small sand and gravel establishments, accounting for about 0.3 percent of the total value of shipments for the industry, were canvassed on abbreviated report forms. For these establishments, less detail was obtained on selected items, such as the cost of supplies, fuels, and electric energy and the horsepower of power equipment, and certain items were omitted entirely, such as water use. To obtain industry totals, estimates were prepared for items omitted for such establishments on the basis of other information reported on the short forms and the data reported on long forms for similar operations.

The 1954 report form used by the Bureau of the Census for the sand and gravel industry also provided the information required by the Bureau of Mines for its annual statistics on commercial sand and gravel. Directly comparable product figures have not been compiled by the two agencies. The Bureau of Mines shows only figures for "commercial operations" and "government-and-contractor operations." The Census figures include all of the first of these groups of establishments and some establishments in the second group, insofar as the latter represents contractors or subcontractors on Federal, State, or local government projects which were able to provide separate complete reports for their sand and gravel mining. Thus, although the Census total figure for sand and gravel sold or used, 429 million tons, exceeds the Bureau of Mines figure for commercial operations, 397 million tons, by 8 percent, when the Census figure is adjusted to exclude the 24 million tons of sand and gravel used by such contractors in this manner, the Census total exceeds that of the Bureau of Mines by less than 2 percent.

Table 1A.—COMPARATIVE STATISTICS FOR THE SAND AND GRAVEL INDUSTRY

(For common sand and gravel operations, excludes establishments for 1954 with value of production and with expenditures less than \$500; and for 1939, except when the latter establishments had expenditures amounting to \$15,000 or more; for 1929, excludes (1) establishments which produced only cludes establishments for 1954 with value of production and with expenditures less than \$500; for 1939 and 1929, less than \$2,500. For explana-

Item	1954			
	Sand and gravel industry, total	Common sand and gravel subindustry	Glass sand subindustry	Foundry sand subindustry
1 Number of operating companies.....	3,340	3,196	40	105
2 Number of establishments.....	3,931	3,756	44	131
3 Number of mines and pits.....	3,949	3,766	44	139
4 Number of preparation plants.....	3,309	3,156	38	115
5 Shipments of sand and gravel ¹.....1,000 short tons..	395,183	383,630	5,535	6,018
6 Value of shipments, total ³.....\$1,000..	466,015	435,662	18,591	11,762
7 Sand and gravel.....do....	408,546	378,705	18,286	11,555
8 Other products and services.....do....	57,469	56,957	305	207
9 Value added in mining.....do....	356,729	334,046	13,701	8,982
10 Number of persons engaged, total.....	39,989	37,498	1,321	1,170
11 Production and development workers.....	30,533	28,423	1,144	966
12 All other employees.....	5,933	5,667	151	115
13 Proprietors and firm members.....	3,523	3,408	26	89
14 Performing manual labor.....	1,913	1,852	11	50
15 Man-hours worked by production and development workers, total.....1,000..	70,103	65,600	2,505	1,998
16 At mines, total.....do....	29,901	28,314	734	853
17 Underground.....do....	183	144	35	4
18 Open-pit, bank, other.....do....	24,110	22,678	637	795
19 On floating equipment.....do....	5,608	5,492	62	54
20 At preparation plants (including auxiliary works).....do....	40,202	37,286	1,771	1,145
21 Sand and gravel shipped per man-hour.....short tons..	5.64	5.85	2.21	3.01
22 Principal expenses designated below, total.....\$1,000..	254,992	238,513	10,119	6,360
23 Wages of production and development workers.....do....	118,966	111,600	4,279	3,087
24 Salaries of all other employees.....do....	28,347	26,958	819	570
25 Supplies and products purchased for resale without further processing ⁵.....do....	61,617	57,481	3,208	928
26 Fuel.....do....	21,373	19,758	840	775
27 Purchased electric energy.....do....	9,997	8,797	807	393
28 Contract work.....do....	14,692	13,919	166	607
29 Purchased machinery installed.....do....	47,694	45,825	965	904
30 Capital expenditures, total.....do....	46,087	44,164	1,096	827
31 Development and exploration of mineral property.....do....	1,649	1,573	34	42
32 Preparation plant construction.....do....	5,822	5,468	210	144
33 Other construction.....do....	2,044	1,952	48	44
34 New machinery and equipment.....do....	28,558	27,254	789	515
35 Used plant and equipment.....do....	8,014	7,917	15	82
36 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....1,000..	3,210	3,068	55	87
37 Per production worker.....	105	108	48	90
38 Prime movers.....1,000..	2,588	2,497	23	68
39 Electric motors driven by purchased energy.....do....	622	571	32	19
40 Horsepower rating of electric motors driven by energy generated and used at same establishment.....do....	28	28	...	(6)
41 Energy used.....million kwh equivalent..	9,057	7,978	746	333
42 Coal.....1,000 short tons..	218	157	55	6
43 Fuel oils.....1,000 barrels..	1,874	1,665	91	118
44 Gas (natural and manufactured).....million cu. ft..	2,053	1,783	261	9
45 Electric energy purchased.....million kwh..	734	649	61	24
46 Electric energy generated and used.....do....	32	32	...	...

(NA) Not available.

¹Excludes data for 2 nonproducing operations in the common sand and gravel subindustry. No nonproducing operations were reported for the glass sand and foundry sand subindustries.

²No nonproducing sand and gravel operations were reported for 1929.

³Figures for 1939 and 1929 represent production.

⁴Excludes man-hours worked on inactive days. Such figures are not available by department.

⁵Excludes the cost of sand and gravel purchased or transferred for preparation, which was not provided for on the report forms. In 1954, the value of products of the 27 separately operated preparation plants in the sand and gravel industry was \$3,308 thousand. Figures for 1939 and 1929 represent cost of supplies only.

⁶Less than 500 horsepower.

SAND AND GRAVEL

14E-5

AND SUBINDUSTRIES IN THE UNITED STATES: 1954, 1939, AND 1929

excludes (1) establishments which produced only unprepared sand and gravel; and (2) those which produced less than 15,000 tons of sand and gravel, unprepared sand and gravel; and (2) those which produced less than 25,000 tons of sand and gravel. For glass sand and foundry sand operations, extension of line captions, see INTRODUCTION)

1939 ¹				1929 ²				
Sand and gravel industry, total	Common sand and gravel subindustry	Glass sand subindustry	Foundry sand subindustry	Sand and gravel industry, total	Common sand and gravel subindustry	Glass sand subindustry	Foundry sand subindustry	
1,253	1,129	32	97	(NA)	(NA)	(NA)	(NA)	1
1,569	1,383	40	146	1,072	957	25	90	2
1,563	1,380	39	144	1,325	1,165	32	128	3
1,528	1,383	40	105	(NA)	(NA)	(NA)	(NA)	4
122,547	115,543	3,175	3,829	175,297	168,886	2,187	4,224	5
79,403	69,130	6,137	4,136	112,447	102,312	5,359	4,776	6
77,126	67,398	5,687	4,041	109,682	101,977	3,777	3,928	7
2,277	1,732	450	95	2,765	335	1,582	848	8
61,935	53,870	4,625	3,440	89,235	81,159	4,082	3,994	9
20,573	17,740	1,527	1,306	22,296	19,915	1,125	1,256	10
16,959	14,584	1,280	1,095	18,061	15,994	1,030	1,037	11
2,818	2,445	242	131	3,967	3,672	95	200	12
796	711	5	80	268	249	...	19	13
290	253	1	36					14
35,785	31,324	2,667	1,794					15
421,633	419,403	4968	41,262					16
433	...	421	412					17
414,584	412,480	4865	41,239	(NA)	(NA)	(NA)	(NA)	18
47,016	46,923	482	411					19
412,709	410,547	41,656	4506					20
3.42	3.69	1.19	2.13					21
42,683	37,189	3,568	1,926	60,227	54,679	2,869	2,679	22
18,822	16,482	1,456	884	25,385	22,780	1,314	1,291	23
6,393	5,447	600	346	11,630	10,746	278	606	24
8,493	7,432	747	314	12,946	11,917	675	354	25
4,632	4,156	322	154	4,452	3,990	282	180	26
3,805	3,273	366	166	5,353	4,921	305	127	27
538	399	77	62	461	325	15	121	28
				7,963	7,174	433	356	29
(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	30
				62	...	50	12	31
1,029	870	124	35	(NA)	(NA)	(NA)	(NA)	32
4,238	3,752	319	167					33
1,064	1,028	5	31					34
								35
699	643	29	27	545	517	13	15	36
41	44	23	25	30	32	13	14	37
382	357	7	18	241	231	2	8	38
317	286	22	9	304	286	11	7	39
14	13	1	...	8	7	1	...	40
4,281	3,645	496	140	6,681	5,832	542	307	41
348	293	44	11	705	606	62	37	42
383	330	40	13	433	403	27	3	43
276	103	170	3	141	135	1	5	44
203	169	24	10	259	238	15	6	45
7	7	...	...	8	8	...	...	46

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 1B.—SELECTED STATISTICS FOR SAND AND GRAVEL MINING OPERATIONS IN THE SAND AND GRAVEL INDUSTRY AND IN MANUFACTURING AND WHOLESALE TRADE INDUSTRIES FOR THE UNITED STATES: 1954

Item	United States, total	Mines, pits, dredges, and plants classified in the sand and gravel industry				Mines, pits, and dredges included in establishments classified in manufacturing and wholesale trade industries ¹
		Total	Common sand and gravel sub-industry	Glass sand sub-industry	Foundry sand sub-industry	
Sand and gravel shipped						
Quantity.....1,000 short tons..	406,647	395,183	383,630	5,535	6,018	11,464
Value.....\$1,000..	420,836	408,546	378,705	18,286	11,555	12,290
Sand and gravel sold or used ²						
Quantity.....1,000 short tons..	421,537	400,690	389,111	5,561	6,018	20,847
Value.....\$1,000..	437,926	415,142	385,281	18,306	11,555	22,784
Man-hours worked by production and development workers, total.....1,000..	77,727	70,103	65,600	2,505	1,998	7,624
At mines and pits.....do....	27,047	24,293	22,822	672	799	2,754
On floating equipment.....do....	5,752	5,608	5,492	62	54	144
At preparation plants (including auxiliary works).....do....	44,928	40,202	37,286	1,771	1,145	4,726
Wages of production and development workers.....\$1,000..	133,666	118,966	111,600	4,279	3,087	14,700

¹Represents sand and gravel mines, pits, and dredges in establishments primarily producing ready-mixed concrete, bituminous concrete, or concrete products such as brick or blocks.

²Represents sand and gravel sold to consumers or used by the producer in the production of ready-mixed concrete, bituminous concrete, or concrete products such as brick or blocks.

Table 2A.—COMPARATIVE STATISTICS FOR THE SAND AND GRAVEL SUBINDUSTRIES FOR SELECTED STATES: 1954, 1939, AND 1929

(For explanation of column captions, see INTRODUCTION)

Subindustry, State, and year	Number of mines	Shipments of sand and gravel ¹ (1,000 short tons)	Value of shipments (\$1,000)	Number of employees		Designated principal expenses (\$1,000)						Aggregate horsepower rating of power equipment
				Production and development workers	All other employees	Wages of production and development workers	Salaries of all other employees	Supplies and products purchased for resale without further processing ²	Fuel	Purchased electric energy	Contract work	
COMMON SAND AND GRAVEL SUBINDUSTRY												
United States:												
1954.....	3,766	383,630	435,662	28,423	5,667	111,600	26,958	57,481	19,758	8,797	13,919	3,068,234
1939 ³	1,380	115,543	69,130	14,584	2,445	16,482	5,447	7,432	4,156	3,273	399	643,026
1929.....	1,165	168,886	102,312	15,994	3,672	22,780	10,746	11,917	3,990	4,921	325	516,745
Maine:												
1954.....	32	798	583	66	13	183	35	46	45	8	34	6,541
1939.....	3	(NA)	61	12	1	16	1	5	3	2	...	567
New Hampshire:												
1954.....	12	808	926	87	12	303	45	53	45	29	5	8,412
1939.....	5	319	173	54	6	62	16	28	20	6	...	2,888
Connecticut:												
1954.....	54	3,645	4,566	270	70	1,129	337	476	231	99	88	37,318
1939.....	20	993	685	134	24	161	55	111	32	24	21	7,343
1929.....	11	452	383	55	23	87	54	21	12	22	...	2,866
New York:												
1954.....	204	25,508	28,709	1,370	337	6,707	1,896	2,928	797	514	860	151,565
1939.....	100	13,231	7,607	1,238	219	2,061	530	578	373	270	32	60,805
1929.....	69	16,922	11,305	1,330	252	2,437	1,269	862	360	368	8	43,256
New Jersey:												
1954.....	75	7,489	9,733	538	112	2,371	663	1,424	454	281	348	56,269
1939.....	45	3,193	2,296	389	108	456	278	239	128	125	19	18,772
1929.....	41	4,603	3,697	505	132	794	320	370	101	151	55	15,017
Pennsylvania:												
1954.....	89	13,227	20,508	1,102	230	4,676	1,355	2,447	759	375	639	78,984
1939.....	53	5,627	5,012	774	159	1,013	394	594	237	187	7	32,601
1929.....	54	10,733	11,003	1,208	267	1,822	810	823	284	305	21	43,717
Ohio:												
1954.....	265	23,589	27,566	1,709	352	6,823	1,740	2,459	973	764	343	176,095
1939.....	130	8,701	6,143	1,141	192	1,310	450	685	317	337	55	56,115
1929.....	84	12,467	6,864	1,103	225	1,787	626	749	211	447	20	40,886
Indiana:												
1954.....	229	14,752	13,689	1,031	207	4,016	1,069	1,543	649	477	280	118,193
1939.....	67	5,512	3,236	642	139	713	293	445	151	239	9	29,555
1929.....	71	9,144	4,453	738	169	984	469	407	131	408	37	31,470
Illinois:												
1954.....	169	21,683	25,806	1,552	277	6,850	1,557	3,583	1,095	630	1,239	131,568
1939.....	73	8,492	4,248	820	134	1,128	381	414	243	288	44	37,575
1929.....	62	13,949	5,577	860	234	1,399	762	627	357	320	52	35,954
Michigan:												
1954.....	206	24,255	21,867	1,364	251	6,003	975	1,749	865	575	839	163,514
1939.....	68	6,684	2,762	584	92	744	228	257	193	169	11	35,707
1929.....	68	14,547	7,030	1,022	181	1,468	526	775	318	408	21	37,633

Table 2A.—COMPARATIVE STATISTICS FOR THE SAND AND GRAVEL SUBINDUSTRIES FOR SELECTED STATES: 1954, 1939, AND 1929—Continued
(For explanation of column captions, see INTRODUCTION)

Subindustry, State, and year	Number of mines	Shipments of sand and gravel ¹ (1,000 short tons)	Value of shipments (\$1,000)	Number of employees		Designated principal expenses (\$1,000)						Aggregate horsepower rating of power equipment
				Production and development workers	All other employees	Wages of production and development workers	Salaries of all other employees	Supplies and products purchased for resale without further processing ²	Fuel	Purchased electric energy	Contract work	
COMMON SAND AND GRAVEL SUBINDUSTRY—Con.												
Wisconsin:												
1954.....	151	13,260	11,077	808	190	3,218	1,129	1,025	752	149	862	120,895
1939.....	58	4,001	1,992	376	77	484	159	173	202	84	6	24,605
1929.....	57	7,113	2,762	390	143	686	355	268	82	196	29	18,082
Nebraska:												
1954.....	135	7,819	6,994	610	72	2,226	247	1,131	631	119	194	77,699
1939.....	38	1,876	681	225	35	170	51	116	63	57	1	11,670
1929.....	40	2,858	1,680	142	48	299	136	105	30	154	5	9,127
Delaware:												
1954.....	9	671	770	43	7	146	29	19	48	8	125	9,005
1939.....	4	104	75	24	4	26	6	13	7	4	...	852
North Carolina:												
1954.....	34	4,482	4,446	420	60	1,163	262	524	179	89	36	31,980
1939.....	9	1,043	629	164	19	118	63	57	45	17	...	3,904
1929.....	6	483	350	130	19	111	36	43	29	19	...	2,000
Tennessee:												
1954.....	28	4,443	5,478	640	51	2,143	257	693	333	91	32	30,108
1939.....	20	1,903	1,419	412	47	381	114	165	87	71	46	12,972
1929.....	22	3,016	2,137	495	103	582	246	403	119	72	3	12,485
Oklahoma:												
1954.....	59	2,984	2,884	256	31	835	147	259	129	124	26	21,922
1939.....	21	1,208	546	206	26	153	31	61	29	31	6	8,052
1929.....	36	2,581	1,579	231	74	299	276	130	58	95	...	7,864
Texas:												
1954.....	152	22,924	25,057	2,185	172	7,115	799	3,488	1,202	462	1,593	165,544
1939.....	54	4,976	3,216	950	100	777	215	464	345	158	16	27,495
1929.....	55	8,745	5,425	1,354	221	1,459	620	1,000	305	204	9	22,520
Montana:												
1954.....	52	2,160	2,568	187	28	744	106	468	121	25	514	27,936
1939.....	7	686	338	53	9	60	13	60	11	10	...	4,044
1929.....	4	801	409	52	12	89	32	56	12	17	...	2,350
New Mexico:												
1954.....	22	3,062	3,687	144	17	513	72	365	186	9	82	40,969
1939.....	4	120	91	25	2	15	4	3	4	2	...	800
Arizona:												
1954.....	20	1,321	1,597	92	29	372	143	193	51	31	...	16,299
1939.....	3	112	82	15	5	21	19	7	7	3	...	710
1929.....	4	395	343	34	14	53	40	21	3	18	...	972
California:												
1954.....	286	48,492	64,072	2,844	849	13,901	4,231	8,598	1,770	1,209	754	407,726
1939.....	104	11,365	6,014	1,056	181	1,397	338	623	207	309	6	60,574
1929.....	96	14,695	7,800	1,153	385	1,844	1,065	731	166	390	11	45,215
GLASS SAND SUBINDUSTRY												
United States:												
1954.....	44	5,535	18,591	1,144	151	4,279	819	3,208	840	807	166	54,712
1939.....	39	3,175	6,137	1,280	242	1,456	600	747	322	366	77	29,154
1929.....	32	2,187	5,359	1,030	95	1,314	278	675	282	305	15	13,215
New Jersey:												
1954.....	3	842	1,223	82	17	366	98	827	97	128	6	5,973
1939.....	4	248	477	89	9	117	24	55	27	46	...	2,630
1929.....	3	120	318	57	9	86	20	42	33	31	...	1,071
FOUNDRY SAND SUBINDUSTRY												
United States:												
1954.....	139	6,018	11,762	966	115	3,087	570	821	775	393	607	87,046
1939.....	144	3,829	4,136	1,095	131	884	346	314	154	166	62	27,035
1929.....	128	4,224	4,776	1,037	200	1,291	606	354	180	127	121	14,792
New York:												
1954.....	23	243	702	64	6	169	29	63	52	3	43	7,160
1939.....	26	362	583	167	9	121	27	23	21	1	26	4,172
1929.....	23	237	468	81	19	113	66	3	5	1	57	350
New Jersey:												
1954.....	10	1,346	3,468	232	28	933	191	188	140	168	272	20,883
1939.....	15	626	995	193	28	193	139	71	37	58	31	5,065
1929.....	23	686	674	162	31	211	71	89	28	21	36	2,325
Indiana:												
1954.....	5	318	451	24	3	93	14	42	33	10	5	2,790
1939.....	6	247	143	47	15	31	28	4	5	1	...	893
1929.....	6	425	243	36	18	43	43	11	7	2	2	620
Illinois:												
1954.....	12	411	686	63	15	222	80	68	69	31	99	9,226
1939.....	19	509	546	124	12	133	30	89	35	31	...	4,170
1929.....	10	622	873	117	18	193	69	44	69	27	2	1,505
Tennessee:												
1954.....	7	237	634	66	5	127	19	53	41	11	82	4,966
1939.....	3	51	87	40	4	16	9	1	...	2	...	93

¹See table 1A, footnote 3.²See table 1A, footnote 5.³See table 1A, footnote 1.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 2B.—NUMBER OF MINES AND PITS IN THE SAND AND GRAVEL INDUSTRY, AND SUBINDUSTRIES, IN THE UNITED STATES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954, 1939, AND 1929

Geographic division and State	Number of mines and pits											
	1954				1939				1929			
	Total	Common sand and gravel sub-industry	Glass sand sub-industry	Foundry sand sub-industry	Total	Common sand and gravel sub-industry ¹	Glass sand sub-industry	Foundry sand sub-industry	Total	Common sand and gravel sub-industry	Glass sand sub-industry	Foundry sand sub-industry
United States, total.....	23,949	23,766	44	139	1,563	1,380	39	144	1,325	1,165	32	128
New England, total.....	233	229	...	4	99	94	...	5	48	48	...	...
Maine.....	32	32	...	...	3	3	...	...	3	3	...	...
New Hampshire.....	12	12	...	...	5	5	...	...	4	4	...	...
Vermont.....	20	20	...	...	3	3	...	...	1	1	...	...
Massachusetts.....	101	98	...	3	59	55	...	4	27	27	...	...
Rhode Island.....	14	13	...	1	9	8	...	1	2	2	...	...
Connecticut.....	54	54	...	...	20	20	...	...	11	11	...	...
Middle Atlantic, total.....	413	368	6	39	258	198	8	52	230	164	7	59
New York.....	227	204	...	23	126	100	...	26	92	69	...	23
New Jersey.....	88	75	3	10	62	45	3	14	67	41	3	23
Pennsylvania.....	98	89	3	6	70	53	5	12	71	54	4	13
East North Central, total....	1,075	1,020	4	51	457	396	4	57	406	342	6	58
Ohio.....	283	265	1	17	151	130	2	19	120	84	2	34
Indiana.....	234	229	...	5	73	67	...	6	77	71	...	6
Illinois.....	181	169	...	12	93	73	1	19	75	62	3	10
Michigan.....	217	206	1	10	80	68	1	11	75	68	1	6
Wisconsin.....	160	151	2	7	60	58	...	2	59	57	...	2
West North Central, total....	695	683	7	5	210	200	4	6	187	182	3	2
Minnesota.....	149	146	1	2	48	44	...	4	29	29	...	...
Iowa.....	124	123	...	1	44	43	...	1	40	39	...	1
Missouri.....	76	73	2	1	35	30	4	1	39	35	3	1
North Dakota.....	36	35	1	...	3	3	...	...	1	1	...	...
South Dakota.....	60	60	...	...	4	4	...	...	3	3	...	...
Nebraska.....	135	135	...	...	38	38	...	...	40	40	...	...
Kansas.....	115	111	3	1	38	38	...	...	35	35	...	...
South Atlantic, total.....	278	266	8	4	110	101	6	3	78	68	10	...
Delaware.....	9	9	...	...	4	4	...	...	...	...	...	...
Maryland.....	59	57	1	1	28	28	...	...	12	11	1	...
Virginia.....	32	29	2	1	15	11	2	2	12	9	3	...
West Virginia.....	33	31	2	...	22	18	3	1	27	21	6	...
North Carolina.....	34	34	...	...	9	9	...	...	6	6	...	...
South Carolina.....	27	24	3	...	8	7	1	...	7	7	...	...
Georgia.....	36	35	...	1	8	8	...	...	5	5	...	...
Florida.....	48	47	...	1	16	16	...	...	9	9	...	...
East South Central, total....	129	118	1	10	93	83	1	9	65	61	...	4
Kentucky.....	22	21	...	1	15	12	...	3	16	12	...	4
Tennessee.....	35	28	...	7	24	20	1	3	22	22	...	...
Alabama.....	34	33	...	1	20	17	...	3	13	13	...	...
Mississippi.....	38	36	1	1	34	34	...	...	14	14	...	...
West South Central, total....	310	292	11	7	121	113	6	2	128	125	3	...
Arkansas.....	27	26	1	...	15	13	2	...	17	16	1	...
Louisiana.....	56	55	1	...	25	25	...	...	18	18	...	...
Oklahoma.....	64	59	4	1	23	21	2	...	38	36	2	...
Texas.....	163	152	5	6	58	54	2	2	55	55	...	...
Mountain, total.....	283	273	2	8	53	42	7	4	29	27	2	...
Montana.....	52	52	...	...	7	7	...	...	4	4	...	...
Idaho.....	50	50	...	...	1	1	...	...	1	1	...	...
Wyoming.....	16	16	...	...	2	2	...	...	2	2	...	...
Colorado.....	63	60	...	3	15	14	...	1	10	10	...	...
New Mexico.....	22	22	...	...	4	4	...	...	1	1	...	...
Arizona.....	20	20	...	...	3	3	...	...	4	4	...	...
Utah.....	43	40	...	3	9	9	...	...	4	4	...	...
Nevada.....	17	13	2	2	12	2	7	3	3	1	2	...
Pacific, total.....	533	517	5	11	162	153	3	6	154	148	1	5
Washington.....	114	111	1	2	19	18	...	1	31	31	...	...
Oregon.....	121	120	...	1	31	31	...	...	21	21	...	...
California.....	298	286	4	8	112	104	3	5	102	96	1	5
Alaska.....	25	25	...	...	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Hawaii.....	23	23	...	...	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)

NA Not available.

¹See table 1A, footnote 1.²Figures for Alaska and Hawaii are not included in the United States total.

Table 3.—DETAILED STATISTICS FOR THE SAND AND GRAVEL INDUSTRY AND SUBINDUSTRIES IN THE UNITED STATES
BY GEOGRAPHIC DIVISIONS AND STATES, AND FOR ALASKA AND HAWAII: 1954

(For explanation of column captions, see INTRODUCTION)

Item	United States ¹			
	Total	Common sand and gravel subindustry	Glass sand subindustry	Foundry sand subindustry
Number of operating companies.....	3,340	3,196	40	105
Number of establishments.....	3,931	3,756	44	131
Number of mines and pits.....	3,949	3,766	44	139
Number of preparation plants.....	3,309	3,156	38	115
Shipments of sand and gravel.....1,000 short tons..	395,183	383,630	5,535	6,018
Value of shipments, total.....\$1,000..	466,015	435,662	18,591	11,762
Sand and gravel.....do....	408,546	378,705	18,286	11,555
Other products and services.....do....	57,469	56,957	305	207
Value added in mining.....do....	356,729	334,046	13,701	8,982
Number of persons engaged, total.....	39,989	37,498	1,321	1,170
Production and development workers.....	30,533	28,423	1,144	966
All other employees.....	5,933	5,667	151	115
Proprietors and firm members.....	3,523	3,408	26	89
Performing manual labor.....	1,913	1,852	11	50
Man-hours worked by production and development workers, total.....1,000..	70,103	65,600	2,505	1,998
At mines, total.....do....	29,901	28,314	734	853
Underground.....do....	183	144	35	4
Open-pit, bank, and other.....do....	24,110	22,678	637	795
On floating equipment.....do....	5,608	5,492	62	54
At preparation plants (including auxiliary works).....do....	40,202	37,286	1,771	1,145
Man-hours spent on development and exploration work (included above).....do....	4,908	4,896	3	9
Sand and gravel shipped per man-hour.....short tons..	5.64	5.85	2.21	3.01
Principal expenses designated below, total.....\$1,000..	254,992	238,513	10,119	6,360
Wages of production and development workers.....do....	118,966	111,600	4,279	3,087
Salaries of all other employees.....do....	28,347	26,958	819	570
Supplies ².....do....	51,095	47,082	3,192	821
Products purchased for resale without further processing.....do....	10,522	10,399	16	107
Fuel.....do....	21,373	19,758	840	775
Purchased electric energy.....do....	9,997	8,797	807	393
Contract work.....do....	14,692	13,919	166	607
Purchased machinery installed.....do....	47,694	45,825	965	904
Capital expenditures, total.....do....	46,087	44,164	1,096	827
Development and exploration of mineral property.....do....	1,649	1,573	34	42
Preparation plant construction.....do....	5,822	5,468	210	144
Other construction.....do....	2,044	1,952	48	44
New machinery and equipment.....do....	28,558	27,254	789	515
Used plant and equipment.....do....	8,014	7,917	15	82
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	3,209,992	3,068,234	54,712	87,046
Per production worker.....	105	108	48	90
Prime movers.....	2,588,389	2,497,583	22,400	68,406
Electric motors driven by purchased energy.....	621,603	570,651	32,312	18,640
Horsepower rating of electric motors driven by energy generated and used at same establishment.....	28,305	28,087	...	218
Energy used.....million kwh equivalent..	9,057	7,978	746	333
Coal.....1,000 short tons..	218	157	55	6
Fuel oils.....1,000 barrels..	1,874	1,665	91	118
Gas (natural and manufactured).....million cu. ft..	2,053	1,783	261	9
Electric energy purchased.....million kwh..	734	649	61	24
Electric energy generated and used.....do....	32	32	...	...
Water intake, including mine water used.....million gallons..	186,576	179,035	5,828	1,713
Per production worker.....do....	6.11	6.29	5.09	1.77

See footnotes at end of table.

Table 3.—DETAILED STATISTICS FOR THE SAND AND GRAVEL INDUSTRY AND SUBINDUSTRIES IN THE
(For explanation of column

	Item	New England						
		Total	Maine	New Hampshire	Vermont	Massachusetts	Rhode Island	Connecticut
1	Number of operating companies.....	209	30	11	19	89	13	47
2	Number of establishments.....	230	32	11	20	100	14	53
3	Number of mines and pits.....	233	32	12	20	101	14	54
4	Number of preparation plants.....	178	14	9	17	82	10	46
5	Shipments of sand and gravel.....1,000 short tons..	13,398	798	808	611	6,738	798	3,645
6	Value of shipments, total.....\$1,000..	15,020	583	926	814	7,123	1,008	4,566
7	Sand and gravel.....do....	13,055	575	926	767	6,117	766	3,904
8	Other products and services.....do....	1,965	8	...	47	1,006	242	662
9	Value added in mining.....do....	12,318	462	846	644	5,761	795	3,810
10	Number of persons engaged, total.....	1,589	104	104	119	794	96	372
11	Production and development workers.....	1,189	66	87	78	613	75	270
12	All other employees.....	248	13	12	22	119	12	70
13	Proprietors and firm members.....	152	25	5	19	62	9	32
14	Performing manual labor.....	82	16	2	15	25	9	15
15	Man-hours worked by production and development workers, total.....1,000..	2,519	142	163	174	1,283	141	616
16	At mines, total.....do....	1,201	69	69	82	594	82	305
17	Underground.....do....	10	...	...	...	10	...	...
18	Open-pit, bank, and other.....do....	1,137	69	69	28	584	82	305
19	On floating equipment.....do....	54	...	...	54	...	...	...
20	At preparation plants (including auxiliary works).....do....	1,318	73	94	92	689	59	311
21	Man-hours spent on development and exploration work (included above).....do....	708	...	1	...	500	...	207
22	Sand and gravel shipped per man-hour.....short tons..	5.32	5.62	4.96	3.51	5.25	5.66	5.92
23	Principal expenses designated below, total.....\$1,000..	8,393	351	480	521	4,107	574	2,360
24	Wages of production and development workers.....do....	4,325	183	303	246	2,217	247	1,129
25	Salaries of all other employees.....do....	975	35	45	63	435	60	337
26	Supplies ².....do....	1,588	46	53	63	784	166	476
27	Products purchased for resale without further processing.....do....	859	45	45	73	382	83	231
28	Fuel.....do....	279	8	29	6	123	14	99
29	Purchased electric energy.....do....	367	34	5	70	166	4	88
30	Contract work.....do....	1,888	109	142	130	919	152	436
31	Purchased machinery installed.....do....	2,279	121	194	172	1,012	206	574
32	Capital expenditures, total.....do....	100	...	18	...	2	52	28
33	Development and exploration of mineral property.....do....	368	5	44	24	140	22	133
34	Preparation plant construction.....do....	78	7	22	11	14	14	10
35	Other construction.....do....	1,493	109	108	113	745	63	355
36	New machinery and equipment.....do....	240	...	2	24	111	55	48
37	Used plant and equipment.....do....	135,773	6,541	8,412	9,772	60,950	12,780	37,318
38	Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	114	99	97	125	99	170	138
39	Per production worker.....	118,450	5,841	6,677	8,970	53,414	11,741	31,807
40	Prime movers.....	17,323	700	1,735	802	7,536	1,039	5,511
41	Electric motors driven by purchased energy.....	1,620	100	...	336	...	...	1,184
42	Horsepower rating of electric motors driven by energy generated and used at same establishment.....	265	13	14	19	110	21	88
43	Energy used.....million kwh equivalent..	1	...	...	...	...	...	1
44	Coal.....1,000 short tons..	50	2	4	2	20	4	18
45	Fuel oils.....1,000 barrels..	3	...	...	...	3	...	...
46	Gas (natural and manufactured).....million cu. ft..	10	...	1	...	5	...	4
47	Electric energy purchased.....million kwh..	1	...	...	...	...	...	1
48	Electric energy generated and used.....do....	7,624	90	370	173	3,499	266	3,226
49	Water intake, including mine water used.....million gallons..	6.41	1.36	4.25	2.22	5.71	3.55	11.95
50	Per production worker.....do....							

See footnotes at end of table.

UNITED STATES BY GEOGRAPHIC DIVISIONS AND STATES, AND FOR ALASKA AND HAWAII: 1954—Continued
captions, see INTRODUCTION)

Middle Atlantic											
Total	New York			New Jersey				Pennsylvania			
	Total	Common sand and gravel sub-industry	Foundry sand sub-industry	Total	Common sand and gravel sub-industry	Glass sand sub-industry	Foundry sand sub-industry	Total	Common sand and gravel sub-industry	Glass sand and foundry sand sub-industries	
334	184	174	10	70	61	3	6	80	71	9	1
408	223	208	15	87	75	3	9	98	89	9	2
413	227	204	23	88	75	3	10	98	89	9	3
337	171	156	15	73	61	3	9	93	87	6	4
49,476	25,751	25,508	243	9,677	7,489	842	1,346	14,048	13,227	821	5
68,206	29,411	28,709	702	15,490	9,733	2,289	3,468	23,305	20,508	2,797	6
62,188	26,437	25,756	681	14,369	8,649	2,289	3,431	21,382	18,586	2,796	7
6,018	2,974	2,953	21	1,121	1,084	...	37	1,923	1,922	1	8
53,224	23,542	23,026	516	10,829	6,976	1,223	2,630	18,853	16,725	2,128	9
4,668	1,932	1,854	78	1,051	692	99	260	1,685	1,411	273	10
3,635	1,434	1,370	64	852	538	82	232	1,349	1,102	247	11
754	343	337	6	157	112	17	28	254	230	24	12
279	155	147	8	42	42	...	...	82	79	2	13
169	97	90	7	27	27	...	...	45	45	...	14
8,471	3,370	3,235	135	1,963	1,252	191	520	3,138	2,600	538	15
3,587	1,530	1,449	81	671	478	43	150	1,386	1,196	190	16
7	7	7	...	...	...	...	...	...	...	...	17
2,678	1,411	1,330	81	496	341	27	128	771	581	190	18
902	112	112	...	175	137	16	22	615	615	...	19
4,884	1,840	1,786	54	1,292	774	148	370	1,752	1,404	348	20
20	9	8	1	10	7	3	...	1	1	...	21
5.84	7.64	7.89	1.80	4.93	5.98	4.41	2.59	4.48	5.09	1.53	22
35,061	14,061	13,702	359	8,955	5,541	1,522	1,892	12,045	10,251	1,794	23
16,173	6,876	6,707	169	3,670	2,371	366	933	5,627	4,676	951	24
4,355	1,925	1,896	29	952	663	98	191	1,478	1,355	123	25
8,282	2,991	2,928	63	2,439	1,424	827	188	2,852	2,447	405	26
2,444	849	797	52	691	454	97	140	904	759	145	27
1,608	517	514	3	577	281	128	168	514	375	139	28
2,199	903	860	43	626	348	6	272	670	639	31	29
5,628	2,479	2,397	82	1,511	1,266	27	218	1,638	1,496	142	30
5,179	1,870	1,813	57	1,183	1,016	19	148	2,126	1,933	193	31
314	26	24	2	60	60	...	...	228	227	1	32
620	66	62	4	158	139	5	14	396	336	60	33
443	131	128	3	76	32	9	35	236	236	...	34
3,119	1,232	1,188	44	758	665	4	89	1,129	997	132	35
683	415	411	4	131	120	1	10	137	137	...	36
329,251	158,725	151,565	7,160	83,125	56,269	5,973	20,883	87,401	78,984	8,417	37
91	111	111	112	98	105	73	90	65	72	34	38
250,186	128,060	121,293	6,767	60,486	43,515	1,460	15,511	61,640	57,620	4,020	39
79,065	30,665	30,272	393	22,639	12,754	4,513	5,372	25,761	21,364	4,397	40
2,236	868	803	65	275	222	...	53	1,093	1,093	...	41
1,246	325	272	53	288	182	49	57	633	533	100	42
59	5	...	5	1	...	1	...	53	44	9	43
234	65	6,043	5	106	64	19	23	63	56	7	44
23	8	8	...	...	...	...	...	15	14	1	45
103	39	39	...	33	14	8	11	31	20	11	46
4	...	...	...	...	...	...	...	4	4	...	47
23,285	7,094	6,986	108	6,588	5,451	638	499	9,603	7,503	2,100	48
6.41	4.95	5.10	1.69	7.73	10.13	7.78	2.15	7.12	6.81	8.50	49

Table 3.—DETAILED STATISTICS FOR THE SAND AND GRAVEL INDUSTRY AND SUBINDUSTRIES IN THE

(For explanation of column

Item	East North Central			
	Total	Ohio		
		Total	Common sand and gravel sub-industry	Glass sand and foundry sand sub-industries
1 Number of operating companies.....	950	253	238	15
2 Number of establishments.....	1,055	281	262	19
3 Number of mines and pits.....	1,075	283	265	18
4 Number of preparation plants.....	875	248	232	16
5 Shipments of sand and gravel.....1,000 short tons..	101,207	24,062	23,589	473
6 Value of shipments, total.....\$1,000..	106,319	29,059	27,566	1,493
7 Sand and gravel.....do....	97,633	26,372	24,885	1,487
8 Other products and services.....do....	8,686	2,687	2,681	6
9 Value added in mining.....do....	83,604	23,844	22,753	1,091
10 Number of persons engaged, total.....	9,230	2,502	2,287	215
11 Production and development workers.....	6,891	1,884	1,709	175
12 All other employees.....	1,354	383	352	31
13 Proprietors and firm members.....	985	235	226	9
14 Performing manual labor.....	590	137	133	4
15 Man-hours worked by production and development workers, total.....1,000..	15,715	4,219	3,908	311
16 At mines, total.....do....	6,553	1,775	1,650	125
17 Underground.....do....	28	11	11	...
18 Open-pit, bank, and other.....do....	5,785	1,600	1,475	125
19 On floating equipment.....do....	740	164	164	...
20 At preparation plants (including auxiliary works).....do....	9,162	2,444	2,258	186
21 Man-hours spent on development and exploration work (included above).....do....	4,008	853	853	...
22 Sand and gravel shipped per man-hour.....short tons..	6.44	5.70	6.04	1.52
23 Principal expenses designated below, total.....\$1,000..	57,662	14,079	13,102	977
24 Wages of production and development workers.....do....	28,368	7,280	6,823	457
25 Salaries of all other employees.....do....	6,840	1,843	1,740	103
26 Supplies ².....do....	10,993	2,684	2,459	225
27 Products purchased for resale without further processing.....do....	4,830	1,072	973	99
28 Fuel.....do....	2,826	834	764	70
29 Purchased electric energy.....do....	3,805	366	343	23
30 Contract work.....do....	12,121	3,884	3,700	184
31 Purchased machinery installed.....do....	11,860	3,625	3,426	199
32 Capital expenditures, total.....do.*..	389	206	206	...
33 Development and exploration of mineral property.....do....	1,765	550	522	28
34 Preparation plant construction.....do....	431	105	105	...
35 Other construction.....do....	6,848	2,214	2,043	171
36 New machinery and equipment.....do....	2,427	550	550	...
37 Used plant and equipment.....do....	745,963	184,481	176,095	8,386
38 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	108	98	103	48
39 Per production worker.....	556,420	125,704	120,258	5,446
40 Prime movers.....	189,543	58,777	55,837	2,940
41 Electric motors driven by purchased energy.....	12,966	1,654	1,654	...
42 Horsepower rating of electric motors driven by energy generated and used at same establishment.....	2,083	394	353	41
43 Energy used.....million kwh equivalent..	71	2	2	...
44 Coal.....1,000 short tons..	394	87	84	3
45 Fuel oils.....1,000 barrels..	277	115	44	71
46 Gas (natural and manufactured).....million cu. ft..	162	42	38	4
47 Electric energy purchased.....million kwh..	15	...	...	...
48 Electric energy generated and used.....do....	65,187	27,743	27,409	334
49 Water intake, including mine water used.....million gallons..	9.46	14.7	16.04	1.91
50 Per production worker.....do....				

See footnotes at end of table.

UNITED STATES BY GEOGRAPHIC DIVISIONS AND STATES, AND FOR ALASKA AND HAWAII: 1954—Continued
 captions, see INTRODUCTION)

East North Central—Continued											
Indiana			Illinois			Michigan			Wisconsin		
Total	Common sand and gravel sub-industry	Foundry sand sub-industry	Total	Common sand and gravel sub-industry	Foundry sand sub-industry	Total	Common sand and gravel sub-industry	Glass sand and foundry sand sub-industries	Total	Common sand and gravel sub-industry	Glass sand and foundry sand sub-industries
207	204	3	153	143	10	185	175	10	153	144	9
231	226	5	176	163	13	204	193	11	164	155	9
234	229	5	181	169	12	217	206	11	160	151	9
163	160	3	147	135	12	172	162	10	145	137	8
15,070	14,752	318	22,094	21,683	411	26,041	24,255	1,786	13,940	13,260	680
14,140	13,689	451	26,492	25,806	686	24,486	21,867	2,619	12,142	11,077	1,065
13,074	12,623	451	24,505	23,887	618	22,529	19,910	2,619	11,153	10,095	1,058
1,066	1,066	...	1,987	1,919	68	1,957	1,957	...	989	982	7
10,952	10,593	359	20,412	19,975	437	19,260	17,086	2,174	9,136	8,391	745
1,472	1,445	27	2,056	1,970	86	1,977	1,847	130	1,223	1,145	78
1,055	1,031	24	1,615	1,552	63	1,464	1,364	100	873	808	65
210	207	3	292	277	15	271	251	20	198	190	8
207	207	...	149	141	8	242	232	10	152	147	5
142	142	...	90	83	7	132	125	7	89	85	4
2,566	2,515	51	3,695	3,566	129	3,235	2,998	237	2,000	1,873	127
1,216	1,191	25	1,195	1,135	60	1,499	1,398	101	868	809	59
...	...	...	8	8	...	...	...	...	9	9	...
942	917	25	993	95	39	1,400	1,299	101	850	791	59
274	274	...	194	173	21	99	99	...	9	9	...
1,350	1,324	26	2,500	2,431	69	1,736	1,600	136	1,132	1,064	68
1	1	...	3,132	3,132	...	13	7	6	9	9	...
5.87	5.87	6.24	5.98	6.08	3.19	8.05	8.09	7.54	6.97	7.08	5.35
8,231	8,034	197	15,523	14,954	569	12,052	11,006	1,046	7,777	7,135	642
4,109	4,016	93	7,072	6,850	222	6,431	6,003	428	3,476	3,218	258
1,083	1,069	14	1,637	1,557	80	1,122	975	147	1,155	1,129	26
1,585	1,543	{ ... }	3,651	3,583	68	1,915	1,749	{ 166 }	1,158	1,025	133
682	649	33	1,164	1,095	69	1,022	865	157	890	752	138
487	477	10	661	630	31	647	575	72	197	149	48
285	280	5	1,338	1,239	99	915	839	76	901	862	39
1,907	1,880	27	1,998	1,919	79	3,092	2,920	172	1,240	1,148	92
1,758	1,733	25	2,732	2,635	97	2,365	2,167	198	1,380	1,250	130
36	36	...	53	53	...	28	18	10	66	40	26
235	218	17	599	572	27	327	259	68	54	47	7
37	37	...	168	166	2	48	48	...	73	73	...
1,163	1,155	8	1,199	1,139	60	1,494	1,394	100	778	682	96
287	287	...	713	705	8	468	448	20	409	408	1
120,983	118,193	2,790	140,794	131,568	9,226	172,210	163,514	8,696	127,495	120,895	6,600
115	115	116	87	85	146	118	120	87	146	150	102
89,241	87,696	1,545	97,696	91,255	6,441	130,939	126,245	4,694	112,840	107,710	5,130
31,742	30,497	1,245	43,098	40,313	2,785	41,271	37,269	4,002	14,655	13,185	1,470
1,600	1,600	...	9,457	9,457	...	230	230	...	25	25	...
245	233	12	782	756	26	385	304	81	277	230	47
5	5	...	58	58	...	4	3	1	2	2	...
39	32	7	85	74	11	109	71	38	77	55	22
6	6	...	142	142	...	14	14	...	...	...	...
27	27	...	42	40	2	41	36	5	10	7	3
1	1	...	14	14	...	...	...	...	12	12	...
9,573	9,573	...	12,920	12,915	5	11,233	10,453	780	3,718	3,601	117
9.07	9.29	...	8.00	8.32	0.08	7.67	7.66	7.80	4.26	4.46	1.80

Table 3.—DETAILED STATISTICS FOR THE SAND AND GRAVEL INDUSTRY AND SUBINDUSTRIES IN THE

(For explanation of column

Item	West North Central						
	Total	Minnesota	Iowa	Missouri	North Dakota and South Dakota	Nebraska	Kansas
1 Number of operating companies.....	612	121	104	71	91	117	108
2 Number of establishments.....	697	152	123	78	97	132	115
3 Number of mines and pits.....	695	149	124	76	96	135	115
4 Number of preparation plants.....	598	128	104	69	78	119	100
5 Shipments of sand and gravel.....1,000 short tons..	53,333	12,155	8,866	8,003	8,447	7,819	8,043
6 Value of shipments, total.....\$1,000..	50,084	11,561	8,962	8,513	6,741	6,994	7,313
7 Sand and gravel.....do....	45,629	10,275	7,887	8,213	6,484	6,583	6,187
8 Other products and services.....do....	4,455	1,286	1,075	300	257	411	1,126
9 Value added in mining.....do....	37,372	8,784	6,539	6,629	5,088	4,803	5,529
10 Number of persons engaged, total.....	5,189	1,187	793	842	744	834	789
11 Production and development workers.....	3,800	810	584	675	574	610	547
12 All other employees.....	687	234	90	103	67	72	121
13 Proprietors and firm members.....	702	143	119	64	103	152	121
14 Performing manual labor.....	370	61	65	38	55	88	63
15 Men-hours worked by production and development workers, total.....1,000..	8,794	1,777	1,462	1,455	1,261	1,545	1,294
16 At mines, total.....do....	4,024	817	702	581	512	748	664
17 Underground.....do....	66	9	...	43	4	10	...
18 Open-pit, bank, and other.....do....	2,911	793	601	264	501	264	488
19 On floating equipment.....do....	1,047	15	101	274	7	474	176
20 At preparation plants (including auxiliary works).....do....	4,770	960	760	874	749	797	630
21 Man-hours spent on development and exploration work (included above).....do....	57	3	1	13	8	2	30
22 Sand and gravel shipped per man-hour.....short tons..	6.06	6.84	6.06	5.50	6.70	5.06	6.21
23 Principal expenses designated below, total.....\$1,000..	29,950	7,028	5,052	5,203	3,890	4,548	4,229
24 Wages of production and development workers.....do....	14,379	3,226	2,166	2,730	2,013	2,226	2,018
25 Salaries of all other employees.....do....	2,622	912	319	436	269	247	439
26 Supplies ².....do....	6,440	1,502	1,246	1,176	331	1,131	1,054
27 Products purchased for resale without further processing.....do....	3,405	761	573	359	678	631	403
28 Fuel.....do....	915	173	268	163	46	119	146
29 Purchased electric energy.....do....	2,189	454	480	339	553	194	169
30 Contract work.....do....	6,086	1,593	1,123	872	982	872	644
31 Purchased machinery installed.....do....	6,323	1,706	1,267	1,025	937	756	632
32 Capital expenditures, total.....do....	228	69	70	8	21	30	30
33 Development and exploration of mineral property.....do....	883	471	197	99	46	14	56
34 Preparation plant construction.....do....	193	16	30	124	7	13	3
35 Other construction.....do....	3,908	913	756	640	687	443	469
36 New machinery and equipment.....do....	1,111	237	214	154	176	256	74
37 Used plant and equipment.....do....	490,765	119,874	94,974	50,002	70,942	77,699	77,274
38 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	129	148	163	74	124	127	141
39 Per production worker.....	437,070	107,889	80,849	38,711	67,763	71,184	70,674
40 Prime movers.....	53,695	11,985	14,125	11,291	3,179	6,515	6,600
41 Electric motors driven by purchased energy.....	3,909	1,265	635	120	1,889	...	...
42 Horsepower rating of electric motors driven by energy generated and used at same establishment.....	1,348	230	302	175	249	183	209
43 Energy used.....million kwh equivalent..	8	2	2	4	...	...	...
44 Coal.....1,000 short tons..	318	42	56	40	62	40	78
45 Fuel oils.....1,000 barrels..	307	33	12	122	91	8	41
46 Gas (natural and manufactured).....million cu. ft..	146	9	107	13	2	7	8
47 Electric energy purchased.....million kwh..	1	1	...	...	...	...	...
48 Electric energy generated and used.....do....	18,939	4,587	4,174	1,639	1,289	2,647	4,603
49 Water intake, including mine water used.....million gallons..	4.98	5.66	7.15	2.43	2.25	4.34	8.41
50 Per production worker.....do....							

See footnotes at end of table.

UNITED STATES BY GEOGRAPHIC DIVISIONS AND STATES, AND FOR ALASKA AND HAWAII: 1954—Continued
captions, see INTRODUCTION)

South Atlantic									East South Central						
Total	Delaware	Maryland	Virginia	West Virginia	North Carolina	South Carolina	Georgia	Florida	Total	Kentucky	Tennessee			Alabama	Mississippi
											Total	Common sand and gravel sub-industry	Foundry sand sub-industry		
231	7	49	27	27	23	22	29	47	100	20	25	19	6	28	27
278	9	59	32	33	34	27	36	48	128	22	35	28	7	34	37
278	9	59	32	33	34	27	36	48	129	22	35	28	7	34	38
219	6	44	27	30	23	22	31	36	118	22	33	26	7	34	29
33,515	671	8,646	6,084	4,059	4,482	2,815	3,052	3,706	17,629	3,983	4,680	4,443	237	3,582	5,384
48,285	770	11,862	13,616	8,884	4,446	2,738	2,723	3,246	19,631	4,375	6,112	5,478	634	3,583	5,561
40,369	567	11,278	7,635	8,291	4,378	2,625	2,715	2,880	17,858	4,047	5,609	4,975	634	3,501	4,701
7,916	203	584	5,981	593	68	113	8	366	1,773	328	503	503	...	82	860
36,201	566	8,799	9,341	7,107	3,606	2,182	2,179	2,421	14,450	3,312	4,731	4,284	447	2,527	3,880
4,373	59	965	978	781	514	348	362	366	2,266	434	775	699	70	477	580
3,301	43	798	569	601	420	285	299	286	1,914	323	706	640	66	403	482
843	7	129	392	156	60	38	23	38	252	89	56	51	5	47	60
229	9	38	17	24	34	25	40	42	100	22	13	8	5	27	38
105	6	23	8	11	19	13	8	17	33	7	2	1	1	11	13
7,929	91	2,077	1,325	1,340	995	678	678	745	4,624	891	1,668	1,551	117	943	1,122
3,071	54	1,013	413	431	289	212	355	304	2,248	512	646	628	18	581	509
...	...	...	...	...	...	...	...	...	39	34	...	...	...	...	5
2,238	54	664	296	262	273	177	305	207	1,244	93	398	380	18	485	268
833	...	349	117	169	16	35	50	97	965	385	248	248	...	96	236
4,858	37	1,064	912	909	706	466	323	441	2,376	379	1,022	923	99	362	613
6	...	5	...	...	...	...	...	1	22	14	8	1	7	...	...
4.22	7.37	4.16	4.59	3.03	4.50	4.15	4.50	4.97	3.81	4.47	2.81	2.86	2.03	3.80	4.80
25,984	375	6,220	7,792	4,448	2,253	1,530	1,426	1,940	11,690	2,862	3,882	3,549	333	1,803	3,143
10,679	146	2,895	1,978	2,117	1,163	768	723	889	5,848	1,207	2,270	2,143	127	1,039	1,332
3,448	29	568	1,513	689	262	154	86	147	1,092	545	276	257	19	148	123
7,110	19	1,543	{ 2,967 }	1,046	{ 524 }	260	336	415	2,729	781	746	693	{ 53 }	213	989
2,266	48	699	407	367	179	172	192	202	1,196	219	374	333	41	231	372
931	8	183	155	220	89	138	59	79	379	33	102	91	11	118	126
1,550	125	332	772	9	36	38	30	208	446	77	114	32	82	54	201
4,118	114	1,113	1,160	767	234	301	215	214	2,206	520	395	383	12	653	638
3,891	110	807	1,186	632	222	353	288	293	1,775	567	350	338	12	213	645
70	21	3	3	...	...	19	22	2	70	55	14	12	2	1	...
272	6	36	49	13	8	7	53	100	71	47	8	8	...	8	8
189	...	37	1	65	1	51	30	4	54	3	27	27	...	4	20
2,932	70	694	1,085	478	198	106	152	149	1,206	261	218	208	10	130	597
428	13	37	48	76	15	170	31	38	374	201	83	83	...	70	20
251,692	9,005	61,621	52,147	25,520	31,980	30,859	21,479	19,081	123,845	25,436	35,074	30,108	4,966	32,478	30,857
76	209	77	92	42	76	108	72	67	65	79	50	47	75	81	64
201,082	8,590	51,685	42,096	16,964	25,776	22,529	18,066	15,376	97,234	22,515	26,403	22,978	3,425	24,514	23,802
50,610	415	9,936	10,051	8,556	6,204	8,330	3,413	3,705	26,611	2,921	8,671	7,130	1,541	7,964	7,055
1,331	...	...	...	1,238	93	...	...	...	2,539	2,189	...	...	...	...	350
1,155	14	267	316	296	62	70	64	66	487	103	163	149	14	85	136
64	...	10	24	29	...	1	...	...	12	4	5	5	...	1	2
222	4	63	42	25	22	16	27	23	131	34	41	35	6	18	38
15	...	...	...	2	13	...	...	...	90	8	66	66	...	10	6
62	...	9	9	18	6	13	3	4	32	1	10	9	1	11	10
3	...	...	...	3	...	...	...	...	4	4	...	...	...	...	...
18,851	314	3,764	3,205	3,533	2,048	2,550	1,475	1,962	13,768	1,964	4,380	4,220	160	2,518	4,906
5.71	7.30	4.72	5.63	5.88	4.88	8.95	4.93	6.86	7.19	6.08	6.20	6.59	2.42	6.25	10.18

Table 3.—DETAILED STATISTICS FOR THE SAND AND GRAVEL INDUSTRY AND SUBINDUSTRIES IN THE

(For explanation of column

Item	West South Central						
	Total	Arkansas	Louisiana	Oklahoma			Texas
				Total	Common sand and gravel sub-industry	Glass sand and foundry sand sub-industry	
1 Number of operating companies.....	252	19	48	52	47	5	133
2 Number of establishments.....	311	27	56	64	59	5	164
3 Number of mines and pits.....	310	27	56	64	59	5	163
4 Number of preparation plants.....	264	22	52	58	53	5	132
5 Shipments of sand and gravel.....1,000 short tons..	39,111	3,926	8,564	3,322	2,984	338	23,299
6 Value of shipments, total.....\$1,000..	45,077	4,605	10,924	3,709	2,884	825	25,839
7 Sand and gravel.....do....	42,532	4,569	10,467	3,548	2,723	825	23,948
8 Other products and services.....do....	2,545	36	457	161	161	...	1,891
9 Value added in mining.....do....	31,460	3,139	7,363	2,956	2,334	622	18,002
10 Number of persons engaged, total.....	4,631	451	1,157	418	337	81	2,605
11 Production and development workers.....do....	4,014	405	1,007	327	256	71	2,275
12 All other employees.....do....	348	22	112	36	31	5	178
13 Proprietors and firm members.....do....	269	24	38	55	50	5	152
14 Performing manual labor.....do....	137	11	17	34	32	2	75
15 Man-hours worked by production and development workers, total.....1,000..	10,026	910	2,446	755	581	174	5,915
16 At mines, total.....do....	4,517	448	1,041	285	236	49	2,743
17 Underground.....do....	30	30	...	...	...	...	...
18 Open-pit, bank, and other.....do....	3,741	342	802	201	162	39	2,396
19 On floating equipment.....do....	746	76	239	84	74	10	347
20 At preparation plants (including auxiliary works).....do....	5,509	462	1,405	470	345	125	3,172
21 Man-hours spent on development and exploration work (included above).....do....	33	1	7	...	...	...	25
22 Sand and gravel shipped per man-hour.....short tons..	3.90	4.31	3.50	4.40	5.14	1.94	3.94
23 Principal expenses designated below, total.....\$1,000..	26,783	2,680	7,033	1,986	1,520	466	15,084
24 Wages of production and development workers.....do....	12,544	1,146	2,972	1,074	835	239	7,352
25 Salaries of all other employees.....do....	1,495	111	395	168	147	21	821
26 Supplies.....do....	7,606	1,083	2,577	363	259	104	3,583
27 Products purchased for resale without further processing.....do....							
28 Fuel.....do....	2,191	184	565	189	129	60	1,253
29 Purchased electric energy.....do....	1,132	93	396	166	124	42	477
30 Contract work.....do....	1,815	63	128	26	26	...	1,598
31 Purchased machinery installed.....do....	5,699	422	654	652	469	183	3,971
32 Capital expenditures, total.....do....	4,826	379	759	643	457	186	3,045
33 Development and exploration of mineral property.....do....	137	3	50	1	1	...	83
34 Preparation plant construction.....do....	490	38	65	57	30	27	330
35 Other construction.....do....	130	27	40	9	9	...	54
36 New machinery and equipment.....do....	3,270	291	433	529	370	159	2,017
37 Used plant and equipment.....do....	799	20	171	47	47	...	561
38 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	281,649	24,194	56,889	27,504	21,922	5,582	173,062
39 Per production worker.....do....	70	60	56	84	86	79	76
40 Prime movers.....do....	223,311	18,872	40,570	17,855	14,500	3,355	146,014
41 Electric motors driven by purchased energy.....do....	58,338	5,322	16,319	9,649	7,422	2,227	27,048
42 Horsepower rating of electric motors driven by energy generated and used at same establishment.....do....	748	55	215	...	...	...	478
43 Energy used.....million kwh equivalent..	868	46	227	80	52	28	515
44 Coal.....1,000 short tons..	2	...	2	...	...	...	...
45 Fuel oils.....1,000 barrels..	224	14	67	18	6	12	125
46 Gas (natural and manufactured).....million cu. ft..	392	10	7	36	34	2	339
47 Electric energy purchased.....million kwh..	85	5	34	13	9	4	33
48 Electric energy generated and used.....do....	1	...	1	...	...	...	...
49 Water intake, including mine water used.....million gallons..	15,580	1,447	4,806	1,752	1,210	541	7,575
50 Per production worker.....do....	3.88	3.57	4.77	5.35	4.73	7.62	3.33

See footnotes at end of table.

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West South Central—Continued			Mountain											
Texas—Continued			Total	Montana	Idaho	Wyoming	Colorado	New Mexico	Arizona	Utah	Nevada			
Common sand and gravel sub-industry	Glass sand sub-industry	Foundry sand sub-industry									Total	Common sand and gravel sub-industry	Glass sand and foundry sand sub-industries	
122	5	6	246	42	44	17	50	22	17	40	14	10	4	1
153	5	6	287	52	50	17	64	23	21	43	17	13	4	2
152	5	6	283	52	50	16	63	22	20	43	17	13	4	3
123	3	6	253	35	40	15	64	22	18	42	17	13	4	4
22,924	252	123	20,306	2,160	2,484	778	6,414	3,062	1,321	2,449	1,638	1,438	200	5
25,057	576	206	22,440	2,568	2,559	633	6,185	3,687	1,597	1,748	3,463	2,780	683	6
23,168	576	204	18,326	1,820	2,081	588	5,660	3,088	1,342	1,748	1,999	1,316	683	7
1,889	...	2	4,114	748	478	45	525	599	255	...	1,464	1,464	...	8
17,394	463	145	16,392	1,337	1,868	319	5,028	3,092	1,349	1,409	1,990	1,458	532	9
2,496	65	44	1,870	256	237	100	549	180	146	206	196	146	50	10
2,185	57	33	1,360	187	178	77	390	144	92	146	146	101	45	11
172	5	1	237	28	17	4	92	17	29	15	35	32	3	12
139	3	10	273	41	42	19	67	19	25	45	15	13	2	13
71	1	3	148	29	24	12	26	10	15	27	5	4	1	14
5,708	135	72	2,876	340	378	147	887	310	225	281	308	215	93	15
2,671	34	38	1,298	149	139	53	399	156	103	117	182	127	55	16
...	...	...	...	...	...	...	...	...	...	...	...	...	...	17
2,324	34	38	1,246	147	138	53	390	126	94	117	181	126	55	18
347	...	...	52	2	1	...	9	30	9	...	1	1	...	19
3,037	101	34	1,578	191	239	94	488	154	122	164	126	88	38	20
24	...	1	23	1	1	...	14	1	4	2	...	...	...	21
4.02	1.87	1.71	7.06	6.35	6.57	5.29	7.23	9.88	5.87	8.72	5.32	6.69	2.15	22
14,659	293	132	12,592	1,978	1,463	569	3,126	1,227	790	936	2,503	2,128	375	23
7,115	163	74	5,507	744	755	289	1,602	513	372	520	712	514	198	24
799	20	2	1,092	106	85	9	338	72	143	49	290	264	26	25
3,488	{ 62 }	33	3,677	468	353	{ 112 }	687	365	193	214	1,285	1,203	{ 82 }	26
1,202	...	32	1,251	121	199	84	361	186	51	101	148	117	...	27
462	12	3	271	25	19	5	113	9	31	42	27	14	13	29
1,593	4	1	794	514	52	70	25	82	...	10	41	16	25	30
3,910	31	30	2,747	295	444	157	779	375	163	282	252	238	14	31
2,992	28	25	2,692	192	376	114	808	422	190	310	280	266	14	32
80	3	...	151	2	2	1	37	54	10	9	36	36	...	33
326	4	...	152	14	1	11	25	28	5	52	16	16	...	34
49	5	...	99	2	12	31	16	3	19	2	14	4	10	35
1,980	16	21	1,690	132	291	61	591	245	104	122	144	142	2	36
557	...	4	600	42	70	10	139	92	52	125	70	68	2	37
165,544	3,307	4,211	231,288	27,936	45,782	14,757	51,227	40,969	16,299	20,207	14,111	12,297	1,814	38
76	58	128	170	149	257	192	131	285	177	138	97	122	40	39
139,489	2,510	4,015	211,897	23,862	43,081	14,571	46,591	40,502	14,129	16,668	12,493	11,174	1,319	40
26,055	797	196	19,391	4,074	2,701	186	4,636	467	2,170	3,539	1,618	1,123	495	41
378	...	100	1,831	...	220	558	56	697	...	...	300	300	...	42
502	9	4	365	37	55	23	109	49	16	30	46	34	12	43
...	...	...	...	...	...	...	...	...	...	...	...	...	...	44
124	1	...	91	9	15	7	25	7	3	6	19	13	6	45
335	...	4	13	13	...	...	...	...	...	...	...	...	...	46
32	1	...	13	1	1	...	5	...	2	2	2	1	1	47
...	...	...	...	...	...	...	...	...	...	...	...	...	...	48
7,268	125	182	2,439	254	675	65	480	84	226	188	467	411	56	49
3.33	2.19	5.52	1.79	1.36	3.79	0.84	1.23	0.58	2.46	1.29	3.20	4.07	1.24	50

Table 3.—DETAILED STATISTICS FOR THE SAND AND GRAVEL INDUSTRY AND SUBINDUSTRIES IN THE UNITED STATES
BY GEOGRAPHIC DIVISIONS AND STATES, AND FOR ALASKA AND HAWAII: 1954—Continued

(For explanation of column captions, see INTRODUCTION)

Item	Pacific						Alaska and Hawaii ¹
	Total	Wash- ington	Oregon	California			
				Total	Common sand and gravel sub- industry	Glass sand and foundry sand sub- industries	
Number of operating companies.....	413	90	105	218	210	8	8
Number of establishments.....	536	116	120	300	288	12	8
Number of mines and pits.....	533	114	121	298	286	12	8
Number of preparation plants.....	467	95	104	268	256	12	8
Shipments of sand and gravel.....1,000 short tons..	67,208	10,137	8,074	48,997	48,492	505	548
Value of shipments, total.....\$1,000..	90,953	11,863	12,340	66,750	64,072	2,678	1,183
Sand and gravel.....do....	70,956	8,823	8,486	53,647	51,093	2,554	1,180
Other products and services.....do....	19,997	3,040	3,854	13,103	12,979	124	3
Value added in mining.....do....	71,708	8,601	8,932	54,175	51,890	2,285	854
Number of persons engaged, total.....	6,173	1,024	1,066	4,083	3,953	130	35
Production and development workers.....	4,429	668	817	2,944	2,844	100	27
All other employees.....	1,210	246	96	868	849	19	2
Proprietors and firm members.....	534	110	153	271	260	11	8
Performing manual labor.....	279	64	83	132	129	3	5
Man-hours worked by production and development workers, total.....1,000..	9,149	1,285	1,709	6,155	5,948	207	75
At mines, total.....do....	3,402	497	709	2,196	2,161	35	41
Underground.....do....	3	3	...	...	...	...	...
Open-pit, bank, and other.....do....	3,130	473	537	2,120	2,085	35	41
On floating equipment.....do....	269	21	172	76	76	...	...
At preparation plants (including auxiliary works).....do....	5,747	788	1,000	3,959	3,787	172	34
Man-hours spent on development and exploration work (included above).....do....	31	6	3	22	22	...	...
Sand and gravel shipped per man-hour.....short tons..	7.35	7.89	4.72	7.96	8.15	2.44	7.31
Principal expenses designated below, total.....\$1,000..	46,877	7,932	7,457	31,488	30,463	1,025	472
Wages of production and development workers.....do....	21,143	3,092	3,697	14,354	13,901	453	290
Salaries of all other employees.....do....	6,428	1,529	544	4,355	4,231	124	10
Supplies ².....do....	13,192	2,221	2,133	8,838	8,598	240	17
Products purchased for resale without further processing.....do....							
Fuel.....do....							
Purchased electric energy.....do....							
Contract work.....do....	1,527	390	338	799	754	45	100
Purchased machinery installed.....do....	7,201	1,594	1,481	4,126	3,961	165	198
Capital expenditures, total.....do....	7,262	1,643	1,289	4,330	4,110	220	41
Development and exploration of mineral property.....do....	190	21	38	131	102	29	...
Preparation plant construction.....do....	1,201	189	181	831	792	39	...
Other construction.....do....	427	136	59	232	231	1	...
New machinery and equipment.....do....	4,092	1,080	575	2,437	2,287	150	38
Used plant and equipment.....do....	1,352	217	436	699	698	1	3
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	619,766	111,377	92,008	416,381	407,726	8,655	9,990
Per production worker.....	140	167	113	141	143	87	370
Prime movers.....	492,739	93,280	72,520	326,939	322,600	4,339	9,960
Electric motors driven by purchased energy.....	127,027	18,097	19,488	89,442	85,126	4,316	30
Horsepower rating of electric motors driven by energy generated and used at same establishment.....	1,125	653	472	...	...	...	...
Energy used.....million kwh equivalent..	1,240	155	181	904	849	55	10
Coal.....1,000 short tons..	1	1	...	...	...	...	...
Fuel oils.....1,000 barrels..	207	28	39	140	137	3	4
Gas (natural and manufactured).....million cu. ft..	933	...	41	892	764	128	2
Electric energy purchased.....million kwh..	121	14	11	96	87	9	...
Electric energy generated and used.....do....	2	2	...	...	...	...	...
Water intake, including mine water used.....million gallons..	20,903	2,814	1,738	16,351	16,158	193	15
Per production worker.....do....	4.72	4.21	2.13	5.55	5.68	1.93	0.56

¹Figures for Alaska and Hawaii are not included in the United States totals.²See table 1A, footnote 5.

SAND AND GRAVEL MINING IN THE UNITED STATES, BY GEOGRAPHIC DIVISIONS: 1954

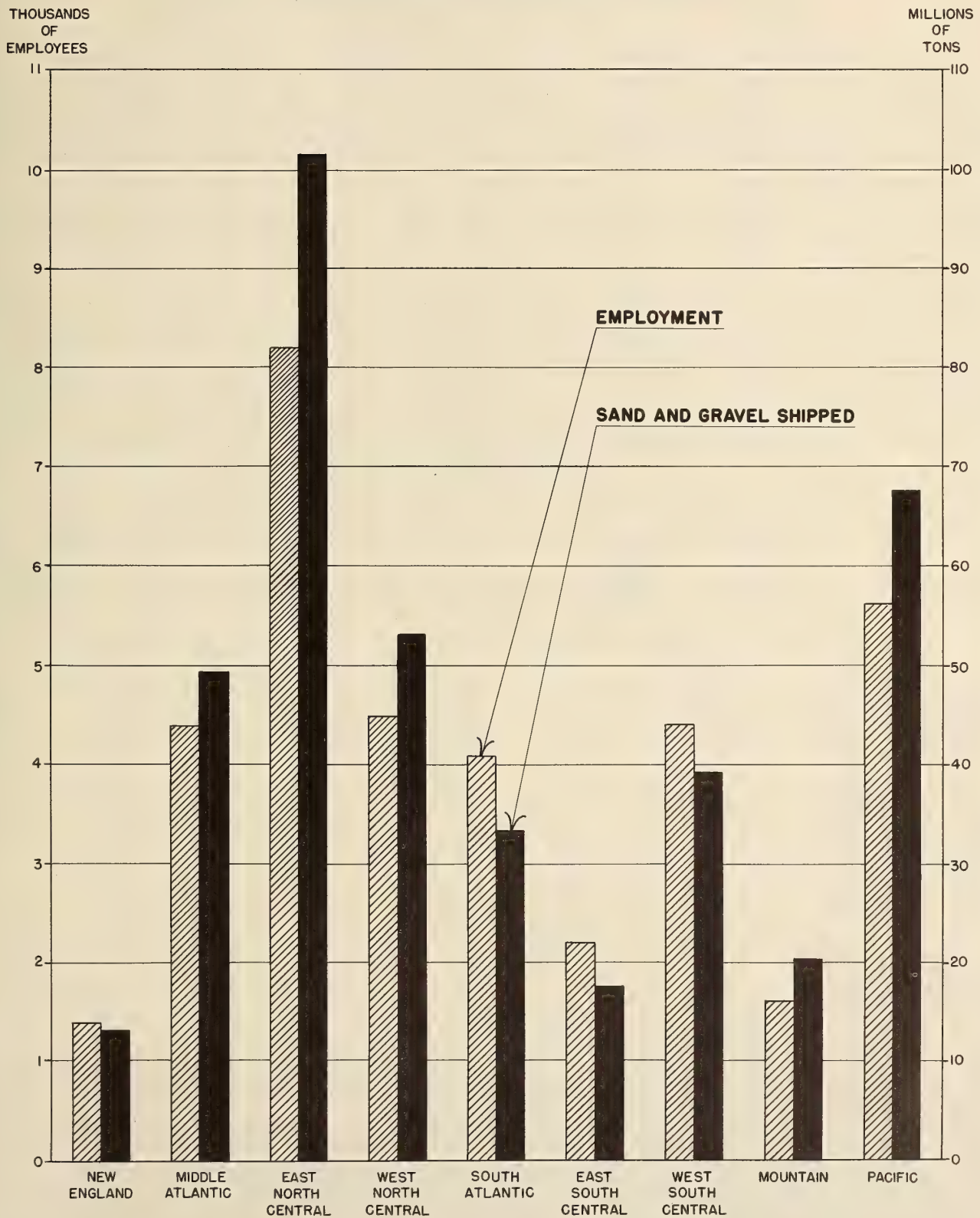


Table 4.—GENERAL STATISTICS FOR THE SAND AND
(For explanation of line

Item		Common sand and gravel subindustry													
		All types of establishments	Mines and pits without preparation plants by type of mining							Mines and pits with preparation plants by type of mining					
			Total	Bank	Bank and pit	Wet pit	Dry pit	River, lake, and ocean ¹	Other combinations and unspecified types ²	Total	Bank	Bank and pit	Wet pit	Dry pit	Wet pit and dry pit
1	Number of operating companies....	3,196	570	160	49	46	196	42	86	2,906	395	318	492	816	62
2	Number of establishments.....	3,756	600	164	50	46	212	42	86	3,156	410	332	534	909	62
3	Number of mines and pits.....	3,766	600	164	50	46	212	42	86	3,166	410	333	537	927	63
4	Number of preparation plants.....	3,156	...	...	...	...	...	...	...	3,156	410	332	534	909	62
5	Value of shipments.....\$1,000..	435,662	11,887	2,972	861	745	4,477	687	2,145	423,775	43,957	33,094	72,008	137,490	8,779
6	Value added in mining.....do....	334,046	8,580	2,362	696	512	2,786	512	1,712	325,466	34,599	24,757	54,757	106,255	7,032
7	Number of persons engaged, total.	37,498	1,657	451	113	121	575	116	281	35,841	3,822	3,101	6,240	11,103	860
8	Production and development workers.....	28,423	935	264	50	64	292	73	192	27,488	2,811	2,257	5,059	8,514	678
9	All other employees.....	5,667	120	37	9	5	56	6	7	5,547	709	505	686	1,845	120
10	Proprietors and firm members..	3,408	602	150	54	52	227	37	82	2,806	302	339	495	744	62
11	Performing manual labor....	1,852	397	93	45	26	157	19	57	1,455	168	198	272	371	34
12	Man-hours worked by production and development workers..1,000..	65,600	1,799	515	108	117	577	126	356	63,801	6,286	5,229	12,334	19,138	1,497
13	Wages and salaries, total.....\$1,000..	138,558	3,109	909	175	184	1,001	215	625	135,449	15,095	11,738	22,537	43,499	3,192
14	Wages of production and development workers....do....	111,600	2,694	785	159	176	799	196	579	108,906	11,409	9,226	19,336	34,467	2,582
15	Salaries of all other employees.....do....	26,958	415	124	16	8	202	19	46	26,543	3,686	2,512	3,201	9,032	610
16	New capital expenditures...do....	36,247	929	302	51	77	394	40	65	35,318	3,687	3,346	6,905	10,428	662
Glass sand subindustry															
		All types of establishments	Mines and pits without preparation plants ⁵	Mines and pits with preparation plants by type of mining ⁶											
				Total	Bank and pit ⁷	Pit only	River and lake ⁸	Other combinations and unspecified ⁹							
1	Number of operating companies....	40	6	34	8	20	4	5							
2	Number of establishments.....	44	6	38	9	20	4	5							
3	Number of mines and pits.....	44	6	38	9	20	4	5							
4	Number of preparation plants.....	38	...	38	9	20	4	5							
5	Value of shipments.....\$1,000..	18,591	114	18,477	7,988	6,963	905	2,621							
6	Value added in mining.....do....	13,701	111	13,590	6,296	5,297	711	1,286							
7	Number of persons engaged, total.....	1,321	13	1,308	602	499	54	153							
8	Production and development workers.....	1,144	9	1,135	532	417	44	142							
9	All other employees.....	151	...	151	65	68	7	11							
10	Proprietors and firm members..	26	4	22	5	14	3	...							
11	Performing manual labor....	11	1	10	4	6	...	...					
12	Man-hours worked by production and development workers..1,000..	2,505	16	2,489	1,143	938	111	297							
13	Wages and salaries, total.....\$1,000..	5,098	28	5,070	2,326	1,967	234	543							
14	Wages of production and development workers....do....	4,279	28	4,251	1,998	1,591	200	462							
15	Salaries of all other employees.....do....	819	...	819	328	376	34	81							
16	New capital expenditures...do....	1,081	5	1,076	319	690	30	37							

¹Represents 9 combination pit and river, lake, or ocean operations; 29 river operations; 2 lake operations; and 2 ocean operations.²Represents 84 producing establishments which did not specify method of mining or which reported combinations of mining methods other than those specified above and 2 nonproducing establishments.³Represents producing establishments as follows: 1 ocean operation; 25 separately-operated preparation plants; and 397 establishments which did not specify method of mining or which reported combinations of mining methods and 2 nonproducing establishments. The 397 establishments accounted for about 94 percent of the value of shipments for this group.⁴Represents 1,616 producing establishments which did not specify the principal preparation method used and 2 nonproducing establishments.⁵Represents 1 bank operation, 1 combination bank and pit, 1 wet pit, 2 dry pits, and 1 mine or pit not specified by type.⁶Represents 36 mines or pits with fixed preparation plants and 2 mines or pits with portable preparation plants. Of the total number of mines with fixed preparation plants, 3 specified screening as the principal preparation method; 4 specified washing as the principal preparation method; and 29 did not specify the principal preparation method. The latter 29 mines or pits accounted for about 93 percent of the total value of shipments for this group. Of the 2 mines or pits with portable preparation plants, 1 specified crushing as the principal preparation method, the other specified classifying.

GRAVEL SUBINDUSTRIES, BY TYPE OF OPERATION: 1954
 captions, see INTRODUCTION)

Common sand and gravel subindustry—Continued																					
Mines and pits with preparation plants by type of mining—Continued				Mines and pits with preparation plants																	
Pit and river, lake, and ocean	River	Lake	Other and un-specified types and plants only ³	By kind of preparation plant (fixed plant)						By kind of preparation plant (portable plant)											
				Total	Principal preparation method					Total	Principal preparation method										
					Crush-ing	Screen-ing	Wash-ing	Classi-fying	Unspec-ified ⁴		Crush-ing	Screen-ing	Wash-ing	Classi-fying	Unspec-ified						
109	315	48	410	2,347	156	437	220	49	1,485	559	113	72	27	9	338	1					
109	325	50	425	2,561	162	492	238	51	1,618	595	115	74	31	9	366	2					
114	325	50	407	2,555	156	493	239	51	1,616	611	117	74	31	9	380	3					
109	325	50	425	2,561	162	492	238	51	1,618	595	115	74	31	9	366	4					
10,315	46,248	11,623	60,261	334,193	21,335	62,279	21,966	8,371	220,242	89,582	13,140	8,911	2,460	1,897	63,174	5					
7,219	35,290	10,476	45,081	254,839	16,341	48,404	15,809	6,388	167,897	70,627	10,056	7,235	1,926	1,322	50,088	6					
1,003	4,070	710	4,932	28,301	1,841	5,095	2,172	609	18,584	7,540	1,423	914	223	161	4,819	7					
710	3,212	582	3,665	21,885	1,324	4,026	1,723	492	14,320	5,603	1,021	704	153	137	3,588	8					
168	574	92	848	4,176	355	612	240	76	2,893	1,371	272	140	41	13	905	9					
125	284	36	419	2,240	162	457	209	41	1,371	566	130	70	29	11	326	10					
73	134	11	194	1,185	86	267	114	22	696	270	61	30	19	3	157	11					
1,584	7,725	1,391	8,617	50,622	3,106	9,474	3,930	1,114	32,998	13,179	2,302	1,665	367	363	8,482	12					
3,435	15,467	2,815	17,671	107,358	7,789	19,450	7,135	2,695	70,289	28,091	5,237	3,299	699	721	18,135	13					
2,629	12,639	2,427	14,191	86,274	5,831	16,315	5,930	2,136	56,062	22,632	4,400	2,672	557	680	14,323	14					
806	2,828	388	3,480	21,084	1,958	3,135	1,205	559	14,227	5,459	837	627	142	41	3,812	15					
1,230	2,600	1,137	5,323	27,350	2,190	4,272	2,260	452	18,176	7,968	1,768	558	172	245	5,225	16					
Foundry sand subindustry																					
All types of establishments	Mines and pits without preparation plants ¹⁰	Mines and pits with preparation plants																			
		By type of mining						By kind of preparation plant		By principal preparation method											
		Total	Bank only	Bank and pit	Wet pit	Dry pit	Other and unspecified types and plants only ¹¹	Fixed	Portable	Screening	Other and unspecified methods ¹²										
105	14	91	26	12	6	33	15	85	7	23	69	1									
131	16	115	34	14	6	44	17	107	8	28	87	2									
139	16	123	43	14	7	44	15	115	8	35	88	3									
115	...	115	34	14	6	44	17	107	8	28	87	4									
11,762	300	11,462	2,701	778	1,368	3,555	3,060	11,112	350	1,633	9,829	5									
8,982	264	8,718	2,129	626	974	2,563	2,426	8,463	255	1,264	7,454	6									
1,170	53	1,117	234	109	165	346	263	1,073	44	192	925	7									
966	36	930	205	85	152	273	215	897	33	163	767	8									
115	4	111	17	13	10	44	27	108	3	14	97	9									
89	13	76	12	11	3	29	21	68	8	15	61	10									
50	7	43	10	3	3	20	7	38	5	11	32	11									
1,998	57	1,941	456	161	343	505	476	1,872	69	292	1,649	12									
3,657	93	3,564	750	241	558	1,022	993	3,462	102	451	3,113	13									
3,087	87	3,000	673	204	505	819	799	2,903	97	404	2,596	14									
570	6	564	77	37	53	203	194	559	5	47	517	15									
745	10	735	158	89	42	288	158	681	54	118	617	16									

⁷Represents 7 bank operations and 2 combination bank and pit operations.

⁸Represents 2 river operations and 2 lake operations.

⁹Represents mines or pits which did not specify the principal method of mining or which reported combinations of mining methods other than those specified above.

¹⁰Represents 12 bank operations, 1 combination bank and pit, and 3 dry pits.

¹¹Represents 2 river operations, 2 separately-operated preparation plants, and 13 mines or pits which did not specify method of mining or which reported combinations of mining methods other than those specified above; these latter 13 mines accounted for about 90 percent of the total value of shipments for this group.

¹²Represents 5 establishments which specified crushing as the principal preparation method; 1 which specified washing as the principal preparation method; 3 which specified classifying; and 78 which did not specify the principal preparation method used. These latter 78 establishments accounted for over 95 percent of the total value of shipments for this group.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 5A.—VALUE OF SHIPMENTS OF PRIMARY PRODUCTS OF THE SAND AND GRAVEL INDUSTRY SHIPPED BY ALL MINING, MANUFACTURING, AND WHOLESALE TRADE INDUSTRIES AND SECONDARY PRODUCTS AND SERVICES OF THE SAND AND GRAVEL INDUSTRY: 1954 AND 1939

Item	Value of shipments and interplant transfers (\$1,000)	
	1954	1939
All products and services of the sand and gravel industry, total.....	466,015	79,403
Sand and gravel, total.....	425,500	77,591
Shipped by establishments classified in the sand and gravel industry.....	408,546	77,126
Shipped by establishments classified in other mineral industries and in manufacturing and wholesale trade industries.....	16,954	1,465
Secondary products and services, total.....	57,469	2,277
Ready-mixed concrete.....	33,290	...
Products purchased and resold without further processing.....	10,551	(NA)
Receipts for contract services.....	7,969	583
Crushed and broken stone.....	2,891	1,113
Asphalt paving mixtures.....	1,640	...
Precast concrete products.....	461	...
Fill dirt.....	428	59
Fire clay, crude and ground feldspar, and common clay.....	145	13
Miscellaneous minerals.....	94	111
Natural abrasives.....	...	398

NA Not available.

¹Represents shipments by establishments classified in other mineral industries only.

Table 5B.—PRIMARY PRODUCTS OF THE SAND AND GRAVEL INDUSTRY PRODUCED IN ALL MINING, MANUFACTURING, AND WHOLESALE TRADE INDUSTRIES IN THE UNITED STATES, ALASKA, AND HAWAII: 1954 AND 1939

Type of sand or gravel	1954						1939 production ¹			
	Shipments and interplant transfers		Products sold or used							
			Washed, screened, or otherwise prepared		All other (unwashed and unscreened—run of pit or bank)		Quantity (1,000 short tons)	Value f.o.b. plant or shipping point (\$1,000)		
Quantity (1,000 short tons)	Value f.o.b. plant or shipping point (\$1,000)	Quantity (1,000 short tons)	Value f.o.b. plant or shipping point (\$1,000)	Quantity (1,000 short tons)	Value f.o.b. plant or shipping point (\$1,000)	Quantity (1,000 short tons)			Value f.o.b. plant or shipping point (\$1,000)	
UNITED STATES										
Sand and gravel, total.....	412,335	425,500	382,337	417,552	46,262	27,523	² 123,321	² 77,591		
By major type:										
Common sand and gravel.....	398,830	393,370	370,286	387,054	44,824	25,916	116,681	68,508		
Glass sand.....	5,974	16,720	5,819	16,539	136	157	2,595	4,510		
Foundry sand.....	7,531	15,410	6,232	13,959	1,302	1,450	4,045	4,573		
By use:										
Sand, total.....	180,898	192,808	172,114	189,996	16,113	10,179	64,534	40,444		
Unground sand, total.....	179,853	186,436	171,045	183,597	16,113	10,179	³ 64,534	³ 40,444		
Glass sand (for melting only).....	5,954	16,596	5,799	16,415	136	157	2,595	4,510		
Molding sand (including sand for pig beds, steel, brass, iron, cores, etc.)..	7,324	14,019	6,025	12,568	1,302	1,450	4,045	4,573		
Building sand (except for road structures).....	98,852	89,997	99,286	92,227	4,725	3,090	53,248	27,581		
Paving and road sand and sand used in bridges, culverts, etc.....	53,145	46,837	49,990	45,721	4,717	2,553				
Grinding and polishing sand.....	907	1,571	907	1,571	...	...	543	351
Blast sand.....	574	2,418	553	2,373	16	45	262	514		
Fire and furnace sand.....	440	860	409	821	31	39	68	111		
Engine sand.....	1,316	1,642	1,070	1,444	252	205	1,288	907		
Filter sand.....	557	1,004	434	882	123	122	138	166		
Railroad ballast.....	936	513	707	404	229	109	1,195	320		
Other unground sand.....	9,848	10,979	5,865	9,171	4,582	2,409	1,152	1,411		
Ground sand, total.....	1,045	6,372	1,069	6,399	...	...	(3)	(3)
Abrasives.....	263	1,571	263	1,571	...	...		
Enamel.....	24	229	24	229	...	...		
Filler.....	235	903	249	908	...	...		
Foundry uses.....	207	1,391	207	1,391	...	...		
Glass.....	20	124	20	124	...	...		
Pottery, porcelain, and tile.....	150	1,283	150	1,283	...	...		
Other uses (including ferrosilicon and sand for filter purposes).....	146	871	156	893	...	...		
Gravel, total.....	231,437	232,692	210,223	227,556	30,149	17,344	58,787	37,147		
Building gravel (except for road structures)	87,177	98,738	87,761	102,261	5,168	3,545	52,099	34,096		
Paving and road gravel and gravel used in bridges, culverts, etc.....	121,199	115,265	106,643	110,121	17,097	9,686				
Railroad ballast.....	8,216	5,551	6,443	4,838	1,778	720			5,579	2,409
Other gravel.....	14,845	13,138	9,376	10,336	6,106	3,393			1,109	642
ALASKA AND HAWAII										
Sand and gravel ⁴	692	1,325	703	1,582	117	71	(NA)	(NA)		

NA Not available.

¹Excludes the production of unprepared sand and gravel by establishments which did not also produce prepared sand and gravel. ²Excludes 9,377 thousand tons of sand and gravel valued at \$4,754 thousand from establishments too small to come within the scope of the 1939 minerals census. This tonnage and value was distributed as follows: 9,318 thousand tons of common sand and gravel valued at \$4,692 thousand; three thousand tons of glass sand at \$5 thousand; and 56 thousand tons of foundry sand at \$57 thousand. ³Figures for ground sand are included with those for unground sand. ⁴Represents building and paving sand, engine sand, building and paving gravel, railroad ballast gravel, and other gravel.

Table 5C.—DISTRIBUTION OF SAND AND GRAVEL SOLD OR USED BY ESTABLISHMENTS IN THE COMMON SAND AND GRAVEL SUBINDUSTRY,
BY GEOGRAPHIC DIVISIONS AND STATES AND FOR ALASKA AND HAWAII: 1954

Geographic division and State	Sand and gravel sold or used by establishments in the Common sand and gravel subindustry ¹									
	Total		For use by same company as contractor or subcontractor on Federal, State, or local government projects		Sold under contract to Federal, State, or local governments		Other		Undistributed	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
	(1,000 short tons)	(\$1,000)	(1,000 short tons)	(\$1,000)	(1,000 short tons)	(\$1,000)	(1,000 short tons)	(\$1,000)	(1,000 short tons)	(\$1,000)
United States, total ²	389,107	385,487	24,410	21,581	49,184	41,169	286,091	292,344	29,422	30,393
New England, total.....	13,683	13,080	687	655	1,643	1,441	9,107	8,759	2,246	2,225
Maine.....	800	573	68	102	157	39	563	429	12	3
New Hampshire.....	808	926	31	51	51	68	657	740	69	67
Vermont.....	611	766	30	39	188	195	330	442	63	90
Massachusetts.....	6,948	6,109	188	91	490	401	4,887	4,297	1,383	1,320
Rhode Island.....	814	751	76	51	103	75	617	607	18	18
Connecticut.....	3,702	3,955	294	321	654	663	2,053	2,244	701	727
Middle Atlantic, total.....	46,825	53,889	525	690	3,945	3,312	39,451	46,718	2,904	3,169
New York.....	25,781	26,207	452	606	3,008	2,070	20,962	22,057	1,359	1,474
New Jersey.....	7,500	8,681	51	53	312	272	5,880	7,066	1,257	1,290
Pennsylvania.....	13,544	19,001	22	31	625	970	12,609	17,595	288	405
East North Central, total.....	98,029	91,913	3,941	3,120	12,331	9,586	75,320	73,221	6,437	5,986
Ohio.....	23,728	25,021	1,014	1,029	2,585	2,374	18,371	19,714	1,758	1,904
Indiana.....	14,781	12,663	227	132	2,060	1,834	10,540	8,852	1,954	1,845
Illinois.....	21,845	24,074	379	303	1,404	1,072	19,266	22,203	796	496
Michigan.....	24,365	20,011	656	539	5,247	3,490	17,354	14,974	1,108	1,008
Wisconsin.....	13,310	10,144	1,665	1,117	1,035	816	9,789	7,478	821	733
West North Central, total.....	52,774	44,126	6,236	5,194	11,378	7,830	32,424	28,540	2,736	2,562
Minnesota.....	12,112	10,079	1,293	655	2,469	1,566	7,281	6,779	1,069	1,079
Iowa.....	8,797	7,663	388	264	1,931	1,362	6,237	5,817	241	220
Missouri.....	7,659	7,438	387	648	783	705	6,263	5,881	226	204
North Dakota and South Dakota.....	8,451	6,490	2,593	2,334	2,938	1,601	2,447	2,079	473	476
Nebraska.....	7,809	6,592	786	555	1,912	1,516	4,795	4,216	316	305
Kansas.....	7,946	5,864	789	738	1,345	1,080	5,401	3,768	411	278
South Atlantic, total.....	32,900	35,831	682	662	2,221	2,118	26,825	28,678	3,172	4,373
Delaware.....	820	773	13	13	...	...	807	760	...	...
Maryland.....	8,599	11,078	...	...	476	511	6,155	7,779	1,968	2,788
Virginia.....	6,730	8,214	...	...	758	709	5,607	7,112	365	393
West Virginia.....	2,855	3,549	...	...	141	162	2,371	2,826	343	561
North Carolina.....	4,494	4,387	306	347	542	348	3,552	3,471	94	221
South Carolina.....	2,771	2,536	...	...	110	138	2,646	2,383	15	15
Georgia.....	2,919	2,407	363	302	1	1	2,489	2,047	66	57
Florida.....	3,712	2,887	...	...	193	249	3,198	2,300	321	338
East South Central, total.....	17,343	17,053	310	395	1,695	1,441	13,680	13,699	1,658	1,518
Kentucky.....	3,976	4,028	...	...	517	556	3,441	3,456	18	16
Tennessee.....	4,510	5,075	188	246	136	163	3,503	4,221	683	445
Alabama.....	3,506	3,399	36	33	41	49	3,162	3,005	267	312
Mississippi.....	5,351	4,551	86	116	1,001	673	3,574	3,017	690	745
West South Central, total.....	38,306	40,580	875	1,067	4,107	5,283	31,293	32,085	2,031	2,145
Arkansas.....	3,752	4,076	...	...	317	323	3,306	3,624	129	129
Louisiana.....	8,560	10,465	169	239	1,793	2,555	6,201	7,263	397	408
Oklahoma.....	2,999	2,735	27	37	308	397	2,374	2,054	290	247
Texas.....	22,995	23,304	679	791	1,689	2,008	19,412	19,144	1,215	1,361
Mountain, total.....	20,318	17,930	4,618	3,289	3,412	2,154	9,062	9,363	3,226	3,124
Montana.....	2,238	1,965	958	677	18	9	1,090	1,044	172	235
Idaho.....	2,522	2,146	577	503	742	449	986	926	217	268
Wyoming.....	781	594	69	44	508	326	179	195	25	29
Colorado.....	6,392	5,621	1,484	918	1,542	981	3,162	3,512	204	210
New Mexico.....	3,116	3,132	544	584	25	42	295	434	2,252	2,072
Arizona.....	1,339	1,362	421	381	13	26	804	867	101	88
Utah.....	2,437	1,673	41	46	515	280	1,626	1,125	255	222
Nevada.....	1,493	1,437	524	136	49	41	920	1,260	...	...
Pacific, total.....	68,929	71,085	6,536	6,509	8,452	8,004	48,929	51,281	5,012	5,291
Washington.....	10,460	9,271	1,166	1,054	2,790	2,351	5,938	5,318	566	548
Oregon.....	8,618	9,176	1,501	1,738	1,414	1,402	4,851	5,168	852	868
California.....	49,851	52,638	3,869	3,717	4,248	4,251	38,140	40,795	3,594	3,875
Alaska and Hawaii ²	548	1,181	352	672	2	10	164	419	30	80

¹No sand or gravel produced or used at establishments in the Glass sand or Foundry sand subindustries was reported as "For use by same company as contractor or subcontractor on Federal, State, or local government projects" or as "Sold under contract to Federal, State, or local governments." Sand and gravel sold or used by the Glass sand subindustry amounted to 5,557,000 short tons valued at \$18,303,000 and for the Foundry sand subindustry to 6,336,000 short tons valued at \$12,021,000. ²See table 3, footnote 1.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table A.—GENERAL STATISTICS FOR COMMON SAND AND GRAVEL, GLASS SAND, AND FOUNDRY SAND ESTABLISHMENTS CLASSIFIED BY EMPLOYMENT SIZE, BY GEOGRAPHIC DIVISIONS AND SELECTED STATES: 1954

(For explanation of column captions, see INTRODUCTION)

Subindustry, geographic division, State, and number of employees in establishment	Number of establish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
COMMON SAND AND GRAVEL SUBINDUSTRY									
United States, total.....	3,756	435,662	334,046	28,423	5,667	65,600	111,600	26,958	36,247
0.....	453	4,050	2,778	...	...	...	...	...	254
1-4.....	1,499	38,024	28,471	3,227	197	6,200	9,717	577	5,592
5-9.....	783	60,028	47,199	4,489	662	9,952	16,930	2,440	6,304
10-19.....	595	101,530	77,689	6,748	1,307	15,090	26,767	6,198	8,702
20-49.....	334	130,646	101,689	8,176	1,455	20,279	34,140	7,580	8,933
50-99.....	75	58,414	43,135	3,809	1,176	9,172	15,170	5,895	3,364
100-249.....	15	42,970	33,085	1,974	870	4,907	8,876	4,268	3,098
250-499.....	2								
New England, total.....	227	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
0.....	30	139	95	...	...	...	...	...	11
1-4.....	98	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
5-9.....	42	2,995	2,471	248	31	535	941	136	418
10-19.....	46	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
20-49.....	10	3,206	2,605	248	100	532	903	355	363
50-99.....	1								
Maine, total.....	32	583	462	66	13	142	183	35	121
0.....	10	27	26	...	...	...	...	...	...
1-4.....	19	556	436	66	13	142	183	35	121
10-19.....	3								
New Hampshire, total.....	11	926	846	87	12	163	303	45	192
1-4.....	5	67	53	10	1	13	23	...	66
5-9.....	4	859	793	77	11	150	280	45	126
10-19.....	1								
50-99.....	1	814	644	78	22	174	246	63	148
Vermont, total.....	20								
0.....	5	45	33	...	...	...	...	...	1
1-4.....	8	135	110	16	...	29	45	...	34
5-9.....	4	169	121	22	...	53	76	...	40
10-19.....	2	465	380	40	22	92	125	63	73
20-49.....	1								
Connecticut, total.....	53	4,566	3,810	270	70	616	1,129	337	526
0.....	5	24	15	...	...	...	...	...	10
1-4.....	19	621	580	42	3	97	153	8	185
5-9.....	15	1,125	918	81	16	181	345	78	133
10-19.....	13	2,796	2,297	147	51	338	631	251	198
20-49.....	1								
Middle Atlantic, total.....	372	58,950	46,727	3,010	679	7,087	13,754	3,914	4,094
0.....	45	325	248	...	...	...	...	...	38
1-4.....	141	4,414	3,260	321	27	623	1,008	71	521
5-9.....	75	6,896	5,457	453	72	1,036	1,911	343	541
10-19.....	71	15,829	11,517	807	162	1,936	3,763	920	1,188
20-49.....	32	15,071	12,013	718	211	1,819	3,528	1,351	779
50-99.....	5	6,253	5,177	322	45	771	1,558	273	232
100-249.....	3	10,162	9,055	389	162	902	1,986	956	795
New York, total.....	208	28,709	23,026	1,370	337	3,235	6,707	1,896	1,402
0.....	37	281	227	...	...	...	...	...	38
1-4.....	75	2,536	1,918	173	15	329	570	62	235
5-9.....	43	3,875	3,162	255	52	581	1,080	231	345
10-19.....	35	8,302	6,061	391	73	921	1,982	397	440
20-49.....	14	7,179	6,434	298	70	763	1,679	527	210
50-99.....	3	6,536	5,224	253	127	641	1,396	679	134
100-249.....	1								
New Jersey, total.....	75	9,733	6,976	538	112	1,252	2,371	663	896
0.....	5	41	18	...	...	...	...	...	...
1-4.....	27	741	636	57	4	121	195	6	122
5-9.....	20	2,206	1,644	126	13	291	565	82	142
10-19.....	16	3,727	2,720	189	47	460	844	254	317
20-49.....	7	3,018	1,958	166	48	380	767	321	315
Pennsylvania, total.....	89	20,508	16,725	1,102	230	2,600	4,676	1,355	1,796
0.....	3	3	3	...	...	...	...	...	...
1-4.....	39	1,137	706	91	8	173	243	3	164
5-9.....	12	815	651	72	7	164	266	30	54
10-19.....	20	3,800	2,736	227	42	555	937	269	431
20-49.....	11	4,874	3,621	254	93	676	1,082	503	254
50-99.....	2	9,879	9,008	458	80	1,032	2,148	550	893
100-249.....	2								

See footnotes at end of table.

Table 6A.—GENERAL STATISTICS FOR COMMON SAND AND GRAVEL, GLASS SAND, AND FOUNDRY SAND ESTABLISHMENTS CLASSIFIED BY EMPLOYMENT SIZE, BY GEOGRAPHIC DIVISIONS AND SELECTED STATES: 1954--Continued

(For explanation of column captions, see INTRODUCTION)

Subindustry, geographic division, State, and number of employees in establishment	Number of establish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
COMMON SAND AND GRAVEL SUBINDUSTRY--Con.									
East North Central, total.....	999	100,005	78,798	6,464	1,277	14,860	26,910	6,470	8,813
0.....	141	913	623	...	...	...	...	...	79
1-4.....	401	9,779	7,611	827	54	1,697	2,644	168	1,324
5-9.....	210	16,689	13,372	1,186	181	2,651	4,713	668	2,082
10-19.....	163	27,004	20,891	1,768	442	4,083	7,473	2,244	2,331
20-49.....	69	23,562	18,734	1,536	294	3,836	6,815	1,602	2,005
50-99.....	8	22,058	17,567	1,147	306	2,593	5,265	1,788	992
100-249.....	6								
250-499.....	1								
Ohio, total.....	262	27,566	22,753	1,709	352	3,908	6,823	1,740	2,876
0.....	17	73	60	...	...	...	...	...	16
1-4.....	104	2,524	2,176	237	10	482	746	33	259
5-9.....	73	5,977	4,831	418	63	895	1,631	224	831
10-19.....	49	8,590	6,438	517	143	1,191	2,110	673	656
20-49.....	15	6,778	6,244	370	50	942	1,622	245	1,022
50-99.....	4	3,624	3,004	167	86	398	714	565	92
Indiana, total.....	226	13,689	10,593	1,031	207	2,515	4,016	1,069	1,446
0.....	71	342	244	...	...	...	...	...	32
1-4.....	79	1,463	1,112	146	7	305	424	8	278
5-9.....	29	2,280	1,796	178	21	430	682	90	191
10-19.....	32	4,697	3,534	347	109	861	1,486	622	682
20-49.....	13	4,907	3,907	360	70	919	1,424	349	263
50-99.....	1								
250-499.....	1								
Illinois, total.....	163	25,306	19,975	1,552	277	3,566	6,850	1,557	1,930
0.....	28	207	150	...	...	...	...	...	7
1-4.....	54	1,344	880	107	3	206	349	12	238
5-9.....	28	1,800	1,412	159	13	345	613	46	326
10-19.....	32	5,803	4,605	344	85	781	1,500	286	406
20-49.....	16	6,099	4,707	433	54	1,049	2,021	283	455
50-99.....	2	10,553	8,221	509	122	1,185	2,367	930	498
100-249.....	3								
Michigan, total.....	193	21,867	17,086	1,364	251	2,998	6,003	975	1,719
0.....	12	85	62	...	...	...	...	...	10
1-4.....	90	2,614	2,045	181	14	363	631	34	306
5-9.....	48	3,919	3,169	254	51	572	1,141	166	601
10-19.....	25	4,446	3,674	292	54	647	1,287	334	314
20-49.....	14	10,803	8,136	637	132	1,416	2,944	441	488
50-99.....	1								
100-249.....	3								
Wisconsin, total.....	155	11,077	8,391	808	190	1,873	3,218	1,129	842
0.....	13	206	107	...	...	...	...	...	14
1-4.....	74	1,834	1,398	156	20	341	494	81	243
5-9.....	32	2,713	2,164	177	33	409	646	142	133
10-19.....	25	3,468	2,640	268	51	603	1,090	329	273
20-49.....	11	2,856	2,082	207	86	520	988	577	179
West North Central, total.....	685	48,181	35,932	3,700	675	8,551	13,977	2,566	5,151
0.....	93	1,105	665	...	...	...	...	...	13
1-4.....	302	6,679	4,791	633	26	1,259	1,689	66	605
5-9.....	154	11,384	8,781	831	178	1,985	3,048	612	1,127
10-19.....	87	11,382	8,421	965	208	2,220	3,640	815	1,476
20-49.....	43	14,382	10,823	986	154	2,435	4,393	573	1,277
50-99.....	6	3,249	2,451	285	109	652	1,207	500	181
Minnesota, total.....	149	11,308	8,562	799	234	1,758	3,182	912	1,112
0.....	17	144	89	...	...	...	...	...	11
1-4.....	64	1,482	1,235	121	8	231	321	37	211
5-9.....	32	2,297	1,821	175	34	394	623	145	253
10-19.....	25	3,587	2,886	292	42	650	1,212	222	341
20-49.....	9	3,798	2,531	211	150	483	1,026	508	313
50-99.....	2								
Nebraska, total.....	132	6,994	4,803	610	72	1,545	2,226	247	500
0.....	13	112	77	...	...	...	...	...	15
1-4.....	74	1,630	1,189	171	7	338	455	16	205
5-9.....	26	1,651	1,085	142	18	363	513	60	110
10-19.....	11	1,419	988	122	42	339	470	145	88
20-49.....	8	2,182	1,464	175	5	505	788	26	82
Kansas, total.....	111	6,703	5,066	522	119	1,217	1,871	427	510
0.....	13	57	34	...	...	...	...	...	1
1-4.....	47	1,057	833	102	2	222	309	5	131
5-9.....	33	2,658	2,095	176	41	435	696	151	117
10-19.....	16	2,931	2,104	244	76	560	866	266	202
20-49.....	1								
50-99.....	1								

See footnotes at end of table.

Table 6A.—GENERAL STATISTICS FOR COMMON SAND AND GRAVEL, GLASS SAND, AND FOUNDRY SAND ESTABLISHMENTS CLASSIFIED BY EMPLOYMENT SIZE, BY GEOGRAPHIC DIVISIONS AND SELECTED STATES: 1954--Continued

(For explanation of column captions, see INTRODUCTION)

Subindustry, geographic division, State, and number of employees in establishment	Number of establish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
COMMON SAND AND GRAVEL SUBINDUSTRY—Con.									
South Atlantic, total.....	266	42,303	31,622	2,844	784	6,963	9,217	3,168	3,278
0.....	19	296	223	...	...	...	...	...	62
1-4.....	104	2,520	1,586	228	15	461	597	37	233
5-9.....	58	3,708	2,784	328	51	719	936	124	263
10-19.....	36	6,034	4,757	422	76	975	1,319	280	475
20-49.....	38	14,436	11,222	1,067	149	2,723	3,624	834	897
50-99.....	9	15,309	11,050	799	493	2,085	2,741	1,893	1,348
100-249.....	1								
250-499.....	1								
Delaware, total.....	9	770	566	43	7	91	146	29	97
0.....	2	239	95	11	1	23	36	2	58
1-4.....	3								
5-9.....	3								
10-19.....	1	531	471	32	6	68	110	27	39
Virginia, total.....	29	13,090	8,976	506	382	1,183	1,817	1,465	1,113
1-4.....	11	197	152	29	1	55	65	3	24
5-9.....	7	743	573	45	7	106	164	23	74
10-19.....	3	385	288	31	6	68	91	16	79
20-49.....	5	11,765	7,963	401	368	954	1,497	1,423	936
50-99.....	2								
250-499.....	1								
North Carolina, total.....	34	4,446	3,606	420	60	995	1,163	262	207
0.....	4	77	51	...	...	...	...	...	...
1-4.....	12	162	136	20	1	41	44	4	4
5-9.....	5	285	222	28	4	60	64	13	...
10-19.....	4	607	433	40	12	97	116	46	64
20-49.....	6	1,677	1,341	138	20	324	415	93	132
50-99.....	3	1,638	1,423	194	23	473	524	106	7
South Carolina, total.....	24	2,650	2,116	272	37	657	743	151	183
1-4.....	10	211	165	23	2	48	58	4	41
5-9.....	7	439	352	44	6	102	95	16	54
10-19.....	3	2,000	1,599	205	29	507	590	131	88
20-49.....	2								
50-99.....	2								
East South Central, total.....	117	18,639	13,720	1,802	246	4,410	5,590	1,063	1,375
1-4.....	27	631	494	64	5	133	147	17	63
5-9.....	24	1,217	1,021	139	14	292	322	33	85
10-19.....	33	4,438	3,202	415	32	958	1,137	150	87
20-49.....	24	7,170	5,299	658	58	1,611	2,047	384	665
50-99.....	8	5,183	3,704	526	137	1,416	1,937	479	475
100-249.....	1								
Tennessee, total.....	28	5,478	4,284	640	51	1,551	2,143	257	255
1-4.....	5	148	113	25	1	48	61	3	11
5-9.....	2								
10-19.....	10								
20-49.....	7	1,193	967	129	9	282	363	26	7
50-99.....	3	1,830	1,483	192	13	501	649	78	141
100-249.....	1	2,307	1,721	294	28	720	1,070	150	96
West South Central, total.....	293	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
0.....	24	334	187	...	...	...	...	...	10
1-4.....	99	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
5-9.....	52	3,695	2,876	327	23	715	925	83	347
10-19.....	55	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
20-49.....	46	13,211	9,316	1,237	169	3,570	4,015	618	1,032
50-99.....	15	14,411	9,312	1,290	75	3,436	4,134	365	1,070
100-249.....	2								
Oklahoma, total.....	59	2,884	2,334	256	31	581	835	147	410
0.....	11	64	46	...	...	...	...	...	10
1-4.....	27	508	360	53	2	105	132	3	202
5-9.....	9	557	477	55	6	128	177	21	51
10-19.....	12	1,755	1,451	148	23	348	526	123	147
Texas, total.....	153	25,057	17,394	2,185	172	5,708	7,115	799	2,435
0.....	11	263	137	...	...	...	...	...	...
1-4.....	50	1,625	1,157	134	10	267	343	37	329
5-9.....	33	2,488	1,947	209	11	474	595	41	278
10-19.....	21	3,591	2,353	274	29	678	877	137	351
20-49.....	30	9,031	6,575	839	86	2,285	2,874	386	706
50-99.....	6	8,059	5,225	729	36	2,004	2,426	198	771
100-249.....	2								

See footnotes at end of table.

Table 6A.—GENERAL STATISTICS FOR COMMON SAND AND GRAVEL, GLASS SAND, AND FOUNDRY SAND ESTABLISHMENTS CLASSIFIED BY EMPLOYMENT SIZE, BY GEOGRAPHIC DIVISIONS AND SELECTED STATES: 1954--Continued

(For explanation of column captions, see INTRODUCTION)

Subindustry, geographic division, State, and number of employees in establishment	Number of establish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
COMMON SAND AND GRAVEL SUBINDUSTRY--Con.									
Mountain, total.....	277	21,671	15,783	1,305	234	2,760	5,274	1,066	2,071
0.....	41	429	338	...	...	...	...	...	10
1-4.....	127	3,089	1,969	267	12	458	771	37	252
5-9.....	65	4,426	3,420	362	42	734	1,431	128	483
10-19.....	26	4,685	3,769	272	52	555	1,186	197	601
20-49.....	14	6,348	4,876	302	58	734	1,404	304	518
50-99.....	4	2,694	1,411	102	70	279	482	400	207
Montana, total.....	52	2,568	1,337	187	28	340	744	106	150
0.....	11	111	92	...	...	...	...	...	...
1-4.....	28	748	248	57	2	92	163	8	65
5-9.....	8	540	408	36	12	77	154	36	15
10-19.....	2	1,169	589	94	14	171	427	62	70
20-49.....	2								
50-99.....	1								
Idaho, total.....	50	2,559	1,868	178	17	378	755	85	306
0.....	11	107	79	...	...	...	...	...	10
1-4.....	24	840	663	53	5	112	184	22	70
5-9.....	12	895	677	70	6	151	318	21	111
10-19.....	2	717	449	55	6	115	253	42	115
20-49.....	1								
Wyoming, total.....	17	633	319	77	4	147	289	9	104
0.....	1	323	177	30	1	52	86	3	23
1-4.....	12								
5-9.....	3	310	142	47	3	95	203	6	81
20-49.....	1								
Colorado, total.....	61	6,121	4,969	383	92	872	1,581	338	669
0.....	3	55	48	...	...	...	...	...	...
1-4.....	22	386	233	40	3	68	117	2	28
5-9.....	16	1,161	936	84	7	158	311	16	43
10-19.....	15	3,012	2,421	147	34	309	638	116	281
20-49.....	3	1,507	1,331	112	48	337	515	204	317
50-99.....	2								
New Mexico, total.....	23	3,687	3,092	144	17	310	513	72	330
0.....	6	26	20	...	...	...	...	...	...
1-4.....	8	124	95	24	...	36	45	...	...
5-9.....	5	306	194	25	5	61	84	22	142
10-19.....	1	3,231	2,783	95	12	213	384	50	188
20-49.....	3								
Arizona, total.....	21	1,597	1,349	92	29	225	372	143	138
0.....	3	9	9	...	...	...	...	...	...
1-4.....	9	230	212	18	...	26	42	...	29
5-9.....	4	191	150	21	...	45	67	...	19
10-19.....	2	1,167	978	53	29	154	263	143	90
20-49.....	3								
Utah, total.....	40	1,726	1,391	143	15	273	506	49	176
0.....	5	74	60	...	...	...	...	...	...
1-4.....	19	319	242	34	1	52	89	2	37
5-9.....	14	1,333	1,089	109	14	221	417	47	139
10-19.....	2								
Nevada, total.....	13	2,780	1,458	101	32	215	514	264	198
0.....	1	166	129	11	...	20	45	...	...
1-4.....	5								
5-9.....	3	288	230	20	...	42	115	...	18
10-19.....	2	2,326	1,099	70	32	153	354	264	180
20-49.....	1								
50-99.....	1								
Pacific, total.....	520	88,177	69,349	4,325	1,191	8,935	20,674	6,304	5,690
0.....	60	509	399	...	...	...	...	...	16
1-4.....	200	6,059	4,935	452	33	797	1,635	105	1,188
5-9.....	103	9,018	7,017	615	70	1,285	2,703	313	898
10-19.....	78	17,266	13,704	911	177	1,889	4,189	818	1,036
20-49.....	58	33,801	27,323	1,467	270	3,096	7,574	1,597	1,511
50-99.....	19	21,524	15,971	880	641	1,868	4,573	2,471	1,041
100-249.....	2								
California, total.....	288	64,072	51,890	2,844	849	5,948	13,901	4,231	3,412
0.....	36	372	304	...	...	...	...	...	12
1-4.....	95	3,232	2,820	212	21	410	872	76	219
5-9.....	57	5,363	4,191	334	46	716	1,474	188	336
10-19.....	42	10,316	8,239	491	118	1,027	2,295	532	418
20-49.....	42	26,729	22,507	1,053	214	2,211	5,375	1,154	775
50-99.....	15	18,060	13,829	754	450	1,584	3,885	2,281	952
100-249.....	1								

See footnotes at end of table.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 6A.—GENERAL STATISTICS FOR COMMON SAND AND GRAVEL, GLASS SAND, AND FOUNDRY SAND ESTABLISHMENTS CLASSIFIED BY EMPLOYMENT SIZE, BY GEOGRAPHIC DIVISIONS AND SELECTED STATES: 1954--Continued

(For explanation of column captions, see INTRODUCTION)

Subindustry, geographic division, State, and number of employees in establishment	Number of establish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
GLASS SAND SUBINDUSTRY									
United States, total.....	44	18,591	13,701	1,144	151	2,505	4,279	819	1,081
0.....	4	23	20	...	...	...	...	...	...
1-4.....	11	248	207	20	1	37	65	...	10
5-9.....	3	94	91	16	1	32	39	3	23
10-19.....	6	1,661	1,377	83	13	208	314	66	50
20-49.....	14	7,136	4,730	401	67	919	1,554	377	459
50-99.....	4	9,429	7,276	624	69	1,309	2,307	373	539
100-249.....	1								
250-499.....	1								
FOUNDRY SAND SUBINDUSTRY									
United States, total.....	131	11,762	8,982	966	115	1,998	3,087	570	745
0.....	11	189	99	...	...	...	...	...	...
1-4.....	57	1,282	1,068	122	14	217	329	41	239
5-9.....	29	1,823	1,388	178	18	337	572	96	71
10-19.....	26	3,809	2,955	305	52	608	917	230	235
20-49.....	5	2,440	1,635	161	8	382	597	25	122
50-99.....	3	2,219	1,837	200	23	454	672	178	78

D Withheld to avoid approximately disclosing figures of individual companies.

Table 6B.—NUMBER OF COMMON SAND AND GRAVEL, GLASS SAND, AND FOUNDRY SAND ESTABLISHMENTS CLASSIFIED BY EMPLOYMENT SIZE, BY GEOGRAPHIC DIVISIONS AND STATES: 1954

Subindustry, geographic division, and State	Number of establishments, total	Number of establishments by employment size							
		No employees	1-4 employees	5-9 employees	10-19 employees	20-49 employees	50-99 employees	100-249 employees	250-499 employees
COMMON SAND AND GRAVEL SUBINDUSTRY									
United States, total ¹	3,756	453	1,499	783	595	334	75	15	2
New England, total.....	227	30	98	42	46	10	1	...	...
Maine.....	32	10	19	...	3	...	...	...	...
New Hampshire.....	11	...	5	4	1	...	1	...	...
Vermont.....	20	5	8	4	2	1	...	...	...
Massachusetts.....	98	9	40	19	23	7	...	...	...
Rhode Island.....	13	1	7	...	4	1	...	...	...
Connecticut.....	53	5	19	15	13	1	...	...	...
Middle Atlantic, total.....	372	45	141	75	71	32	5	3	...
New York.....	208	37	75	43	35	14	3	1	...
New Jersey.....	75	5	27	20	16	7	...	...	...
Pennsylvania.....	89	3	39	12	20	11	2	2	...
East North Central, total.....	999	141	401	210	163	69	8	6	1
Ohio.....	262	17	104	73	49	15	4	...	...
Indiana.....	226	71	79	29	32	13	1	...	1
Illinois.....	163	28	54	28	32	16	2	3	...
Michigan.....	193	12	90	48	25	14	1	3	...
Wisconsin.....	155	13	74	32	25	11	...	...	...
West North Central, total.....	685	93	302	154	87	43	6	...	...
Minnesota.....	149	17	64	32	25	9	2	...	...
Iowa.....	122	20	47	35	15	5	...	...	...
Missouri.....	75	6	32	14	9	13	1	...	...
North Dakota.....	36	8	15	5	5	3	...	...	...
South Dakota.....	60	16	23	9	6	4	2	...	...
Nebraska.....	132	13	74	26	11	8	...	...	...
Kansas.....	111	13	47	33	16	1	1	...	...
South Atlantic, total.....	266	19	104	58	36	38	9	1	1
Delaware.....	9	2	3	3	1	...	...	...	...
Maryland.....	57	3	21	9	9	13	1	1	...
Virginia.....	29	...	11	7	3	5	2	...	1
West Virginia.....	31	2	10	10	3	5	1	...	...
North Carolina.....	34	4	12	5	4	6	3	...	...
South Carolina.....	24	...	10	7	3	2	2	...	...
Georgia.....	35	4	16	8	3	4	...	...	...
Florida.....	47	4	21	9	10	3	...	...	...
East South Central, total.....	117	...	27	24	33	24	8	1	...
Kentucky.....	21	...	1	9	4	5	2	...	...
Tennessee.....	28	...	5	2	10	7	3	1	...
Alabama.....	33	...	10	6	11	5	1	...	...
Mississippi.....	35	...	11	7	8	7	2	...	...
West South Central, total.....	293	24	99	52	55	46	15	2	...
Arkansas.....	26	1	5	5	10	4	1	...	...
Louisiana.....	55	1	17	5	12	12	8	...	...
Oklahoma.....	59	11	27	9	12	...	...	...	...
Texas.....	153	11	50	33	21	30	6	2	...
Mountain, total.....	277	41	127	65	26	14	4	...	...
Montana.....	52	11	28	8	2	2	1	...	...
Idaho.....	50	11	24	12	2	1	...	...	...
Wyoming.....	17	1	12	3	...	1	...	...	...
Colorado.....	61	3	22	16	15	3	2	...	...
New Mexico.....	23	6	8	5	1	3	...	...	...
Arizona.....	21	3	9	4	2	3	...	...	...
Utah.....	40	5	19	14	2	...	...	...	...
Nevada.....	13	1	5	3	2	1	1	...	...
Pacific, total.....	520	60	200	103	78	58	19	2	...
Washington.....	113	13	50	24	15	9	1	1	...
Oregon.....	119	11	55	22	21	7	3	...	...
California.....	288	36	95	57	42	42	15	1	...
Alaska ¹	5	1	2	1	...	1	...	...	...
Hawaii ¹	3	3	...	...	...	...	...	...	...

See footnotes at end of table.

Table 6B.—NUMBER OF COMMON SAND AND GRAVEL, GLASS SAND, AND FOUNDRY SAND ESTABLISHMENTS CLASSIFIED BY EMPLOYMENT SIZE, BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

Subindustry, geographic division, and State	Number of establishments, total	Number of establishments by employment size							
		No employees	1-4 employees	5-9 employees	10-19 employees	20-49 employees	50-99 employees	100-249 employees	250-499 employees
GLASS SAND SUBINDUSTRY									
United States, total.....	44	4	11	3	6	14	4	1	1
Middle Atlantic, total.....	6	...	1	...	1	3	...	1	...
New Jersey.....	3	...	...	...	1	2	...	...	...
Pennsylvania.....	3	...	1	...	...	1	...	1	...
East North Central, total.....	4	...	2	...	...	2	...	...	...
Ohio.....	1	...	...	...	...	1	...	...	...
Michigan.....	1	...	...	...	...	1	...	...	...
Wisconsin.....	2	...	2	...	...	...	...	...	...
West North Central, total.....	7	2	2	...	1	2	...	...	...
Minnesota.....	1	...	1	...	...	...	...	...	...
Missouri.....	2	...	...	...	1	1	...	...	...
North Dakota.....	1	...	1	...	...	...	...	...	...
Kansas.....	3	2	...	...	...	1	...	...	...
South Atlantic, total.....	8	1	1	...	1	3	1	...	1
Maryland.....	1	...	...	...	...	1	...	...	...
Virginia.....	2	...	...	...	...	2	...	...	...
West Virginia.....	2	...	...	...	...	...	1	...	1
South Carolina.....	3	1	1	...	1	...	...	...	...
East South Central ²	1	...	...	1	...	...	...	...	...
West South Central, total.....	11	1	4	1	2	1	2	...	...
Arkansas.....	1	...	...	...	...	...	1	...	...
Louisiana.....	1	...	1	...	...	...	...	...	...
Oklahoma.....	4	...	1	1	1	...	1	...	...
Texas.....	5	1	2	...	1	1	...	...	...
Mountain ³	2	...	...	...	...	2	...	...	...
Pacific, total.....	5	...	1	1	1	1	1	...	...
Washington.....	1	...	1	...	...	...	...	...	...
California.....	4	...	...	1	1	1	1	...	...
FOUNDRY SAND SUBINDUSTRY									
United States, total.....	131	11	57	29	26	5	3	...	...
New England, total.....	3	...	2	...	1	...	...	...	...
Massachusetts.....	2	...	1	...	1	...	...	...	...
Rhode Island.....	1	...	1	...	...	...	...	...	...
Middle Atlantic, total.....	30	4	7	12	4	1	2	...	...
New York.....	15	2	6	6	1	...	...	...	...
New Jersey.....	9	1	...	3	2	1	2	...	...
Pennsylvania.....	6	1	1	3	1	...	...	...	...
East North Central, total.....	53	3	23	10	15	2	...	...	...
Ohio.....	18	2	6	2	7	1	...	...	...
Indiana.....	5	...	3	1	1	...	...	...	...
Illinois.....	13	1	4	6	2	...	...	...	...
Michigan.....	10	...	5	1	4	...	...	...	...
Wisconsin.....	7	...	5	...	1	1	...	...	...
West North Central, total.....	5	...	3	1	1	...	...	...	...
Minnesota.....	2	...	1	1	...	...	...	...	...
Iowa.....	1	...	...	...	1	...	...	...	...
Missouri.....	1	...	1	...	...	...	...	...	...
Kansas.....	1	...	1	...	...	...	...	...	...
South Atlantic, total.....	4	...	2	1	...	...	1	...	...
Maryland.....	1	...	1	...	...	...	...	...	...
Virginia.....	1	...	1	...	...	...	...	...	...
Georgia.....	1	...	...	...	...	...	1	...	...
Florida.....	1	...	...	1	...	...	...	...	...
East South Central, total.....	10	...	2	2	4	2	...	...	...
Kentucky.....	1	...	...	1	...	...	...	...	...
Tennessee.....	7	...	2	1	3	1	...	...	...
Alabama.....	1	...	...	...	...	1	...	...	...
Mississippi.....	1	...	...	...	1	...	...	...	...
West South Central, total.....	7	...	4	2	1	...	...	...	...
Oklahoma.....	1	...	1	...	...	...	...	...	...
Texas.....	6	...	3	2	1	...	...	...	...
Mountain, total.....	8	2	5	1	...	...	...	...	...
Colorado.....	3	1	1	1	...	...	...	...	...
Utah.....	3	...	3	...	...	...	...	...	...
Nevada.....	2	1	1	...	...	...	...	...	...
Pacific, total.....	11	2	9	...	...	...	...	...	...
Washington.....	2	2	...	...	...	...	...	...	...
Oregon.....	1	...	1	...	...	...	...	...	...
California.....	8	...	8	...	...	...	...	...	...

¹Figures for Alaska and Hawaii are not included in the United States totals.²Represents 1 establishment in Mississippi.³Represents 2 establishments in Nevada.

Table 7.—MONTHLY EMPLOYMENT IN THE SAND AND GRAVEL INDUSTRY, BY GEOGRAPHIC DIVISIONS
AND STATES AND BY SUBINDUSTRY FOR THE UNITED STATES: 1954

Subindustry, geographic division, and State	Average employ- ment for the year ¹	Number of employees by month											
		January	Feb- ruary	March	April	May	June	July	August	Sep- tember	October	No- vember	De- cember
United States, total ²	36,466	30,518	30,978	32,462	35,445	37,678	39,122	40,047	39,925	39,514	38,553	36,966	34,089
Common sand and gravel subindustry	34,090	28,194	28,657	30,146	33,121	35,317	36,709	37,631	37,475	37,103	36,151	34,584	31,732
Glass sand subindustry.....	1,295	1,250	1,252	1,258	1,244	1,290	1,327	1,331	1,340	1,306	1,299	1,285	1,296
Foundry sand subindustry.....	1,081	1,074	1,069	1,058	1,080	1,071	1,086	1,085	1,110	1,105	1,103	1,097	1,061
New England, total.....	1,437	1,127	1,087	1,176	1,343	1,470	1,542	1,588	1,591	1,623	1,599	1,533	1,386
Maine.....	79	49	46	46	67	87	91	96	90	97	94	93	67
New Hampshire.....	99	61	58	65	80	97	101	113	93	129	129	124	109
Vermont.....	100	59	52	56	79	111	117	123	121	129	136	107	87
Massachusetts.....	732	603	575	615	698	732	780	814	822	809	785	768	716
Rhode Island.....	87	70	70	84	91	89	94	88	88	93	91	91	82
Connecticut.....	340	285	286	310	328	354	359	354	377	366	364	350	325
Middle Atlantic, total.....	4,389	3,885	3,849	4,015	4,365	4,567	4,646	4,718	4,699	4,654	4,571	4,399	4,066
New York.....	1,777	1,424	1,417	1,512	1,764	1,914	1,936	1,972	1,957	1,937	1,910	1,804	1,645
New Jersey.....	1,009	1,000	982	1,002	1,015	1,027	1,033	1,033	1,022	1,013	1,004	993	969
Pennsylvania.....	1,603	1,461	1,450	1,501	1,586	1,626	1,677	1,713	1,720	1,704	1,657	1,602	1,452
East North Central, total.....	8,245	6,629	6,747	7,199	7,921	8,478	9,008	9,074	9,105	9,017	8,865	8,519	7,692
Ohio.....	2,267	1,901	1,952	2,048	2,213	2,302	2,418	2,431	2,422	2,420	2,384	2,318	2,103
Indiana.....	1,265	1,030	1,097	1,169	1,293	1,308	1,381	1,351	1,361	1,353	1,327	1,267	1,155
Illinois.....	1,907	1,645	1,676	1,737	1,843	1,929	1,999	2,041	2,044	2,035	2,006	1,923	1,836
Michigan.....	1,735	1,246	1,218	1,389	1,566	1,838	1,986	2,006	1,967	1,982	1,935	1,880	1,625
Wisconsin.....	1,071	807	804	856	1,006	1,101	1,224	1,245	1,311	1,227	1,213	1,131	973
West North Central, total.....	4,487	2,770	2,856	3,111	4,199	4,969	5,394	5,671	5,645	5,472	5,137	4,565	3,602
Minnesota.....	1,044	476	494	565	863	1,195	1,358	1,515	1,476	1,399	1,305	1,078	725
Iowa.....	674	430	455	486	645	733	794	816	836	812	784	692	615
Missouri.....	778	718	745	709	792	781	787	809	799	781	789	784	744
North Dakota and South Dakota.....	641	274	232	291	627	831	933	893	887	864	779	626	334
Nebraska.....	682	356	399	517	690	773	783	814	821	818	779	749	590
Kansas.....	668	516	531	543	582	656	739	824	826	798	701	636	594
South Atlantic, total.....	4,144	3,898	3,964	4,022	4,079	4,168	4,219	4,284	4,263	4,252	4,251	4,183	4,116
Delaware.....	50	41	43	49	50	50	51	52	50	50	51	49	48
Maryland.....	927	867	880	892	922	947	935	970	946	954	934	927	927
Virginia.....	961	917	918	936	953	948	946	954	978	967	992	985	1,001
West Virginia.....	757	725	732	732	741	747	786	802	802	785	778	747	712
North Carolina.....	480	409	428	463	464	472	487	497	509	520	518	508	493
South Carolina.....	323	319	330	325	310	333	351	347	324	326	318	300	290
Georgia.....	322	304	301	292	309	341	340	331	324	319	334	333	320
Florida.....	324	316	332	333	330	330	323	331	330	331	326	334	325
East South Central, total.....	2,166	1,930	2,032	2,085	2,221	2,192	2,239	2,370	2,277	2,235	2,160	2,148	2,033
Kentucky.....	412	365	366	387	405	415	429	461	439	445	426	426	415
Tennessee.....	762	633	721	753	829	755	788	861	801	786	745	753	683
Alabama.....	450	458	461	458	444	453	463	456	451	449	438	436	420
Mississippi.....	542	474	484	487	543	569	559	592	586	555	551	533	515
West South Central, total.....	4,362	4,063	4,155	4,214	4,233	4,266	4,384	4,480	4,482	4,506	4,481	4,448	4,408
Arkansas.....	427	371	399	409	418	435	448	448	435	446	438	424	401
Louisiana.....	1,119	1,071	1,051	1,079	1,131	1,145	1,158	1,141	1,124	1,131	1,115	1,118	1,092
Oklahoma.....	363	313	330	328	329	330	370	400	403	398	383	371	383
Texas.....	2,453	2,308	2,375	2,398	2,355	2,356	2,408	2,491	2,520	2,531	2,545	2,535	2,532
Mountain, total.....	1,597	1,184	1,227	1,365	1,568	1,638	1,775	1,809	1,854	1,874	1,668	1,535	1,367
Montana.....	215	112	116	136	167	234	249	289	300	302	271	188	171
Idaho.....	195	144	149	157	183	189	202	212	237	255	215	214	157
Wyoming.....	81	43	45	50	72	90	110	104	125	104	84	62	57
Colorado.....	482	374	393	449	492	487	531	526	523	548	489	473	428
New Mexico.....	161	133	133	138	152	161	170	189	190	182	153	144	143
Arizona.....	121	124	121	134	163	116	128	117	107	110	101	111	109
Utah.....	161	100	113	122	156	174	185	183	184	188	177	165	128
Nevada.....	181	154	157	179	183	187	200	189	188	185	178	178	174
Pacific, total.....	5,639	5,032	5,061	5,275	5,516	5,930	5,915	6,053	6,009	5,881	5,821	5,636	5,419
Washington.....	914	675	659	798	937	1,064	997	1,011	1,055	1,045	930	855	808
Oregon.....	913	768	794	809	837	946	954	1,034	1,054	1,004	965	935	902
California.....	3,812	3,589	3,608	3,668	3,742	3,920	3,964	4,008	3,900	3,832	3,926	3,846	3,709
Alaska and Hawaii ²	29	1	1	2	19	51	64	77	66	45	4	1	1

¹Represents the sum of the average employment figures for the year as shown in the separate establishment reports. These are the averages shown in other tables of this report. Because of roundings, the sum of such average figures may differ slightly from the average of the January to December totals shown above.

²Figures for Alaska and Hawaii are not included in the United States totals.

TABLE 8.—GENERAL STATISTICS FOR COMMON SAND AND GRAVEL ESTABLISHMENTS CLASSIFIED BY OUTPUT PER MAN-HOUR, BY GEOGRAPHIC DIVISIONS, AND BY SELECTED TYPES OF OPERATION AND FOR GLASS SAND AND FOUNDRY SAND ESTABLISHMENTS FOR THE UNITED STATES: 1954

(For explanation of column captions, see INTRODUCTION)

Subindustry, geographic division, type of operation, and short tons of sand and gravel shipped per man-hour	Number of establishments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
COMMON SAND AND GRAVEL SUBINDUSTRY									
United States, total.....	3,756	435,662	334,046	28,423	5,667	65,600	111,600	26,958	36,247
Less than 1.00.....	39	4,581	2,527	459	65	1,200	1,519	244	399
1.00-1.99.....	142	13,969	9,993	1,587	171	3,776	5,304	817	1,856
2.00-2.99.....	220	23,396	17,841	2,634	307	6,492	9,023	1,308	1,546
3.00-3.99.....	219	23,422	17,396	2,263	276	5,494	7,902	1,190	2,586
4.00-4.99.....	232	30,743	24,038	2,680	425	6,415	10,010	2,011	2,337
5.00-5.99.....	223	31,313	25,794	2,292	321	5,382	9,461	1,623	2,341
6.00-6.99.....	175	24,050	19,816	1,662	280	3,836	7,119	1,215	1,824
7.00-7.99.....	123	21,293	17,494	1,260	238	2,901	5,354	1,339	1,640
8.00-8.99.....	82	25,826	20,021	1,062	545	2,487	4,777	2,599	2,210
9.00-11.99.....	174	40,055	34,887	1,818	409	3,984	8,214	1,864	3,247
12.00 and over.....	252	40,113	33,531	1,494	495	3,120	6,829	2,648	2,004
Unclassified ¹	1,875	156,901	110,708	9,212	2,135	20,513	36,088	10,100	14,257
Geographic Division									
New England, total.....	227	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Less than 1.00.....	3	9	4	11	...	26	29	...	9
1.00-1.99.....	9	329	323	68	...	154	267	...	74
2.00-2.99.....	10	405	295	42	4	88	139	18	23
3.00-3.99.....	12	387	458	54	1	93	142	3	173
4.00-4.99.....	18	1,714	1,459	155	28	365	649	154	180
5.00-5.99.....	13	1,473	1,309	119	14	237	424	94	232
6.00-6.99.....	11	789	669	65	13	128	230	34	24
7.00-7.99.....	19	2,807	2,358	162	54	323	647	282	202
8.00-8.99.....	10	1,203	1,108	69	7	138	248	20	355
9.00-11.99.....	11	509	445	42	10	81	157	33	99
12.00 and over.....	14	456	416	29	7	50	96	34	17
Unclassified ¹	97	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Middle Atlantic, total.....	372	58,950	46,727	3,010	679	7,087	13,754	3,914	4,094
Less than 1.00.....	6	102	81	31	5	59	84	12	41
1.00-1.99.....	14	2,313	1,475	147	24	316	549	109	169
2.00-2.99.....	31	4,376	3,615	402	64	904	1,523	286	315
3.00-3.99.....	25	3,011	2,283	189	37	439	800	190	300
4.00-4.99.....	19	2,407	1,863	182	40	462	820	233	175
5.00-5.99.....	26	3,121	2,667	199	45	494	912	262	295
6.00-6.99.....	11	1,353	1,196	94	16	199	407	75	186
7.00-7.99.....	13	2,919	2,290	129	35	322	623	299	197
8.00-8.99.....	6	3,126	2,479	124	122	315	699	655	97
9.00-11.99.....	19	13,139	12,236	445	80	1,101	2,290	475	865
12.00 and over.....	20	6,117	4,955	177	30	411	1,034	248	206
Unclassified ¹	182	16,966	11,587	891	181	2,065	4,013	1,070	1,248
East North Central, total.....	999	100,005	78,798	6,464	1,277	14,860	26,910	6,470	8,813
Less than 1.00.....	4	525	209	38	2	99	189	8	11
1.00-1.99.....	22	2,367	1,645	198	45	490	758	225	356
2.00-2.99.....	41	2,769	2,179	332	57	875	1,227	259	88
3.00-3.99.....	55	3,685	2,835	402	34	931	1,563	190	254
4.00-4.99.....	47	3,803	3,029	389	66	870	1,463	300	375
5.00-5.99.....	65	6,908	6,021	552	79	1,245	2,324	369	755
6.00-6.99.....	53	7,610	6,342	526	71	1,260	2,292	313	639
7.00-7.99.....	42	7,098	5,608	437	100	1,044	1,936	536	426
8.00-8.99.....	18	7,380	5,725	402	39	961	1,888	276	269
9.00-11.99.....	54	8,622	7,817	513	134	1,054	2,282	431	1,353
12.00 and over.....	59	6,913	5,536	300	94	614	1,332	494	551
Unclassified ¹	539	42,325	31,852	2,375	556	5,417	9,656	3,069	3,736
West North Central, total.....	685	48,181	35,932	3,700	675	8,551	13,977	2,566	5,131
Less than 1.00.....	3	46	36	19	3	43	53	11	54
1.00-1.99.....	21	1,192	854	187	23	417	575	126	241
2.00-2.99.....	30	1,923	1,355	223	26	564	902	74	167
3.00-3.99.....	26	1,546	981	161	56	415	642	151	33
4.00-4.99.....	60	5,994	4,684	591	99	1,421	2,215	341	457
5.00-5.99.....	38	4,246	3,478	304	37	742	1,329	196	415
6.00-6.99.....	26	2,209	1,736	173	37	383	660	185	77
7.00-7.99.....	11	2,195	1,723	132	4	332	583	28	203
8.00-8.99.....	15	2,062	1,650	153	20	280	506	76	160
9.00-11.99.....	24	2,110	1,773	127	38	299	480	153	140
12.00 and over.....	51	4,229	3,601	234	79	438	834	183	271
Unclassified ¹	380	20,429	14,061	1,396	253	3,217	5,198	1,042	2,913

¹ Footnotes at end of table.

Table 8.--GENERAL STATISTICS FOR COMMON SAND AND GRAVEL ESTABLISHMENTS CLASSIFIED BY OUTPUT PER MAN-HOUR, BY GEOGRAPHIC DIVISIONS, AND BY SELECTED TYPES OF OPERATION AND FOR GLASS SAND AND FOUNDRY SAND ESTABLISHMENTS FOR THE UNITED STATES: 1954--Continued

Subindustry, geographic division, type of operation, and short tons of sand and gravel shipped per man-hour	Number of establishments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
South Atlantic, total.....	266	42,303	31,622	2,844	784	6,963	9,217	3,168	3,278
Less than 1.00.....	5	19	16	9	1	20	19	3	...
1.00-1.99.....	20	2,337	1,802	198	14	476	677	68	290
2.00-2.99.....	31	5,454	4,206	677	70	1,694	1,979	329	416
3.00-3.99.....	19	1,627	1,253	177	19	373	518	105	107
4.00-4.99.....	20	4,203	3,370	359	67	974	1,305	274	318
5.00-5.99.....	17	4,143	3,470	253	36	695	910	126	52
6.00-6.99.....	11	1,769	1,499	118	21	278	436	82	110
7.00-7.99.....	10	1,045	991	72	12	179	242	34	203
8.00-8.99.....	5	9,269	6,633	156	333	460	690	1,469	890
9.00-11.99.....	9	1,549	1,304	83	20	185	288	135	98
12.00 and over.....	8	1,423	1,136	68	2	163	219	11	62
Unclassified ¹	111	9,465	5,942	674	189	1,466	1,934	532	732
East South Central, total.....	117	18,639	13,720	1,802	246	4,410	5,590	1,063	1,375
Less than 1.00.....	3	293	206	79	17	248	244	41	14
1.00-1.99.....	12	1,927	1,402	293	31	751	969	170	94
2.00-2.99.....	8	447	383	71	6	151	185	23	3
3.00-3.99.....	14	2,206	1,441	207	14	530	684	32	47
4.00-4.99.....	13	3,427	2,852	286	36	689	868	279	133
5.00-5.99.....	9	2,611	1,822	229	32	549	721	202	124
6.00-6.99.....	7	995	792	72	41	174	202	148	52
7.00-7.99.....	3	665	556	42	...	83	104	...	...
8.00-8.99.....	...	...	...	...	...	...	...	...	...
9.00-11.99.....	8	1,466	1,009	92	4	199	259	21	54
12.00 and over.....	4	177	143	22	...	44	51	...	107
Unclassified ¹	36	4,425	3,114	409	65	992	1,303	147	747
West South Central, total.....	293	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Less than 1.00.....	8	3,408	1,850	241	33	649	816	160	223
1.00-1.99.....	21	2,406	1,686	360	21	911	1,038	73	606
2.00-2.99.....	28	4,711	3,403	589	48	1,561	1,864	163	194
3.00-3.99.....	33	8,550	6,203	864	60	2,186	2,721	260	1,123
4.00-4.99.....	22	4,774	3,266	376	34	957	1,175	147	427
5.00-5.99.....	18	2,247	1,820	184	21	419	580	74	129
6.00-6.99.....	17	3,706	2,853	236	38	627	969	164	121
7.00-7.99.....	6	1,728	1,542	108	5	267	399	36	91
8.00-8.99.....	2	131	172	6	...	18	15	...	66
9.00-11.99.....	6	532	448	32	2	74	126	8	50
12.00 and over.....	6	1,222	1,043	60	1	154	235	3	56
Unclassified ¹	126	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Mountain, total.....	277	21,671	15,783	1,305	234	2,760	5,274	1,066	2,071
Less than 1.00.....	6	178	124	30	4	56	84	9	47
1.00-1.99.....	8	283	93	28	2	48	86	4	8
2.00-2.99.....	20	1,234	907	115	17	276	458	74	176
3.00-3.99.....	14	1,281	1,059	96	44	294	386	223	174
4.00-4.99.....	10	611	487	75	6	154	288	20	23
5.00-5.99.....	12	1,265	1,001	94	32	215	445	145	164
6.00-6.99.....	9	745	634	57	7	124	248	23	46
7.00-7.99.....	5	464	452	39	5	74	155	14	85
8.00-8.99.....	8	580	447	39	5	86	182	11	70
9.00-11.99.....	11	973	839	57	11	116	226	35	46
12.00 and over.....	39	5,872	5,004	185	33	360	804	119	372
Unclassified ¹	135	8,185	4,736	490	68	957	1,912	389	860
Pacific, total.....	520	88,177	69,349	4,325	1,191	8,935	20,674	6,304	5,690
Less than 1.00.....	1	1	1	1	...	...	1	...	...
1.00-1.99.....	15	815	713	108	11	213	385	42	18
2.00-2.99.....	21	2,077	1,498	183	15	379	746	82	164
3.00-3.99.....	21	1,129	883	113	11	233	446	36	375
4.00-4.99.....	23	3,810	3,028	267	49	523	1,227	263	249
5.00-5.99.....	25	5,299	4,206	358	25	786	1,816	155	175
6.00-6.99.....	30	4,874	4,095	321	36	663	1,675	191	569
7.00-7.99.....	14	2,372	1,974	139	23	277	665	110	233
8.00-8.99.....	18	2,075	1,807	113	19	229	549	92	303
9.00-11.99.....	32	11,155	9,016	427	110	875	2,106	573	542
12.00 and over.....	51	13,704	11,697	419	249	886	2,224	1,556	362
Unclassified ¹	269	40,866	30,431	1,876	643	3,871	8,834	3,204	2,700

See footnotes at end of table.

MINERAL INDUSTRIES--INDUSTRY STATISTICS

Table S.—GENERAL STATISTICS FOR COMMON SAND AND GRAVEL ESTABLISHMENTS CLASSIFIED BY OUTPUT PER MAN-HOUR, BY GEOGRAPHIC DIVISIONS, AND BY SELECTED TYPES OF OPERATION AND FOR GLASS SAND AND FOUNDRY SAND ESTABLISHMENTS FOR THE UNITED STATES: 1954--Continued

Subindustry, geographic division, type of operation, and short tons of sand and gravel shipped per man-hour	Number of establishments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
Type of Operation									
Bank and pit, total.....	410	43,957	34,599	2,811	709	6,286	11,409	3,686	3,687
Less than 1.00.....	4	108	53	28	3	76	72	10	17
1.00-1.99.....	19	804	642	127	16	286	439	80	66
2.00-2.99.....	30	2,077	1,612	238	36	505	812	121	145
3.00-3.99.....	31	4,078	3,177	285	87	720	1,083	375	618
4.00-4.99.....	27	3,537	2,936	267	59	626	1,066	318	183
5.00-5.99.....	29	3,134	2,566	225	27	472	895	151	243
6.00-6.99.....	20	1,755	1,488	139	24	277	503	72	141
7.00-7.99.....	18	2,494	2,087	146	53	294	561	262	216
8.00-8.99.....	14	2,070	1,768	118	15	251	481	51	336
9.00-11.99.....	18	4,461	3,758	198	24	431	886	129	215
12.00 and over.....	28	5,341	4,145	164	165	344	916	1,122	246
Unclassified ¹	172	14,098	10,367	876	200	2,004	3,695	995	1,261
Bank and pit, total.....	332	33,094	24,757	2,257	505	5,229	9,226	2,512	3,346
Less than 1.00.....	2	365	335	67	7	157	234	18	80
1.00-1.99.....	10	995	728	90	21	228	342	110	84
2.00-2.99.....	17	1,684	1,219	181	9	455	665	39	113
3.00-3.99.....	21	3,239	2,487	263	41	624	1,147	166	385
4.00-4.99.....	26	3,724	3,015	281	37	700	1,204	181	357
5.00-5.99.....	11	1,961	1,608	145	22	354	668	82	201
6.00-6.99.....	19	3,015	2,487	150	40	354	684	208	343
7.00-7.99.....	11	1,781	1,415	121	33	274	502	208	285
8.00-8.99.....	19	2,729	2,592	166	33	340	698	298	208
9.00-11.99.....	19	1,752	1,067	66	27	124	290	135	147
12.00 and over.....	162	11,849	7,804	727	235	1,619	2,792	1,067	1,143
Unclassified ¹									
Dry pit, total.....	909	137,490	106,255	8,514	1,845	19,138	34,467	9,032	10,428
Less than 1.00.....	13	1,401	1,021	118	8	269	326	14	197
1.00-1.99.....	43	7,769	5,462	688	60	1,623	2,517	315	779
2.00-2.99.....	49	6,259	4,849	780	91	1,850	2,573	422	367
3.00-3.99.....	51	4,350	3,406	503	54	1,091	1,713	312	514
4.00-4.99.....	60	9,164	7,017	804	131	1,870	2,929	547	625
5.00-5.99.....	52	7,404	6,298	552	90	1,324	2,311	497	870
6.00-6.99.....	38	7,652	6,310	455	63	1,074	2,371	345	485
7.00-7.99.....	30	5,400	4,293	312	63	711	1,291	361	241
8.00-8.99.....	24	6,282	5,247	297	133	702	1,455	735	199
9.00-11.99.....	60	14,268	12,237	712	187	1,480	3,334	606	1,004
12.00 and over.....	85	13,459	11,290	496	181	1,031	2,456	815	593
Unclassified ¹	404	54,082	38,825	2,797	784	6,113	11,191	4,063	4,554
Unclassified ¹									
River, total.....	325	46,248	35,290	3,212	574	7,725	12,639	2,828	2,600
Less than 1.00.....	3	2,391	1,734	275	32	722	819	150	195
1.00-1.99.....	18	3,970	3,399	362	38	927	1,460	208	149
2.00-2.99.....	26	2,514	1,698	235	15	605	800	53	72
3.00-3.99.....	29	4,298	3,373	357	98	880	1,320	400	262
4.00-4.99.....	21	4,364	3,541	324	37	735	1,419	230	149
5.00-5.99.....	14	1,229	993	78	46	212	324	168	65
6.00-6.99.....	13	1,898	1,547	123	14	261	534	77	136
7.00-7.99.....	7	721	526	40	4	96	193	21	55
8.00-8.99.....	13	2,312	1,843	97	25	210	431	146	125
9.00-11.99.....	25	5,679	4,899	143	24	361	765	112	80
12.00 and over.....	136	16,872	11,737	1,178	241	2,716	4,574	1,263	1,312
Unclassified ¹									
GLASS SAND SUBINDUSTRY									
United States, total.....	44	18,591	13,701	1,144	151	2,505	4,279	819	1,081
0.60-0.99.....	6	870	611	109	16	264	309	60	87
1.00-1.99.....	10	4,774	3,641	381	41	825	1,423	215	459
2.00-2.99.....	6	5,803	4,560	326	36	707	1,233	307	79
3.00-3.99.....	3								
4.00-4.99.....	1	2,899	1,759	95	18	225	442	114	65
5.00-5.99.....	1								
6.00-6.99.....	1								
7.00-8.99.....	17	4,245	3,130	233	40	484	872	123	391
Unclassified ¹									

See footnotes at end of table.

Table 8.—GENERAL STATISTICS FOR COMMON SAND AND GRAVEL ESTABLISHMENTS CLASSIFIED BY OUTPUT PER MAN-HOUR, BY GEOGRAPHIC DIVISIONS, AND BY SELECTED TYPES OF OPERATION AND FOR GLASS SAND AND FOUNDRY SAND ESTABLISHMENTS FOR THE UNITED STATES: 1954--Continued

Subindustry, geographic division, type of operation, and short tons of sand and gravel shipped per man-hour	Number of establishments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
FOUNDRY SAND SUBINDUSTRY									
United States, total.....	131	11,762	8,982	966	115	1,998	3,087	570	745
Less than 0.60.....	4	84	68	20	7	33	55	31	10
0.60-0.99.....	15	765	552	144	10	308	360	31	24
1.00-1.99.....	20	1,278	1,003	163	9	324	449	14	49
2.00-2.99.....	15	1,070	841	83	18	166	301	78	56
3.00-3.99.....	5	1,934	1,786	122	22	264	435	155	86
4.00-4.99.....	3	249	216	14	4	34	64	24	39
5.00-5.99.....	1	1,033	743	57	6	123	227	26	98
6.00-6.99.....	1								
7.00-8.99.....	2								
9.00-11.99.....	4	626	502	24	7	50	96	69	23
12.00 and over.....	3	266	219	12	3	26	54	18	...
Unclassified ¹	58	4,457	3,052	327	29	670	1,046	124	360

D Withheld to avoid approximately disclosing figures of individual companies.

¹Represents principally reports indicating that a substantial proportion of the production was performed by contractors or by proprietors or partners who regularly worked at the establishments. Man-hours for the contractors' employees and for the working proprietors and partners are not included above. Also included are establishments which indicated that a substantial proportion of their value of shipments was comprised of products other than sand or gravel (see table 5A for list of secondary products). Significant ratios of output per man-hour could not be computed for these groups.

Table 9.—GENERAL STATISTICS FOR COMMON SAND AND GRAVEL ESTABLISHMENTS CLASSIFIED BY RATIO OF WAGES AND SALARIES TO VALUE ADDED IN MINING, BY GEOGRAPHIC DIVISIONS, AND FOR GLASS SAND AND FOUNDRY SAND ESTABLISHMENTS FOR THE UNITED STATES: 1954

(For explanation of column captions, see INTRODUCTION)

Subindustry, geographic division, and ratio of wages and salaries to value added in mining	Number of establish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
COMMON SAND AND GRAVEL SUBINDUSTRY									
United States, total.....	3,756	435,662	334,046	28,423	5,667	65,600	111,600	26,958	36,247
Less than 0.30.....	797	117,714	103,696	4,696	661	10,503	18,274	2,755	8,868
0.30-0.39.....	562	103,866	81,445	5,530	1,038	12,964	22,596	5,057	7,000
0.40-0.49.....	509	72,372	56,130	5,235	795	12,214	20,672	3,965	6,335
0.50-0.59.....	422	55,920	39,844	4,290	852	10,122	16,895	4,481	4,384
0.60-0.69.....	240	30,339	20,852	2,607	601	6,237	10,556	2,700	2,552
0.70-0.79.....	159	17,063	10,882	1,610	440	3,625	6,166	1,983	1,185
0.80-0.89.....	119	11,210	7,273	1,247	284	2,944	4,863	1,260	1,519
0.90-0.99.....	55	6,203	3,857	628	193	1,394	2,457	1,119	726
1.00 and over.....	436	17,236	7,799	2,580	803	5,597	9,121	3,638	3,453
Unclassified ¹	457	3,739	2,268	...	...	...	...	...	224
New England, total.....	227	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Less than 0.30.....	45	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
0.30-0.39.....	33	4,354	3,786	283	41	601	1,124	201	529
0.40-0.49.....	31	2,673	2,172	208	37	455	793	134	528
0.50-0.59.....	27	1,160	965	111	37	236	388	122	156
0.60-0.69.....	10	740	587	81	16	164	320	67	47
0.70-0.79.....	9	846	601	76	23	194	330	113	107
0.80-0.89.....	5	436	274	45	26	90	163	80	49
0.90-0.99.....	4	162	132	26	6	60	90	30	22
1.00 and over.....	33	829	433	169	47	336	535	190	185
Unclassified ¹	30	130	75	...	...	...	...	...	10
Middle Atlantic, total.....	372	58,950	46,727	3,010	679	7,087	13,754	3,914	4,094
Less than 0.30.....	78	22,180	19,833	675	104	1,632	3,372	515	1,512
0.30-0.39.....	55	10,057	7,441	426	90	1,013	2,064	558	628
0.40-0.49.....	56	9,325	7,719	637	81	1,525	2,844	557	741
0.50-0.59.....	36	6,276	4,863	368	155	845	1,717	891	172
0.60-0.69.....	34	5,267	3,735	375	85	870	1,699	662	347
0.70-0.79.....	23	2,315	1,555	229	59	505	889	296	214
0.80-0.89.....	10	784	524	91	10	227	399	28	98
0.90-0.99.....	6	1,254	607	88	39	219	357	203	166
1.00 and over.....	32	1,260	352	121	56	251	413	204	195
Unclassified ¹	42	232	98	...	...	...	...	...	21
East North Central, total.....	999	100,005	78,798	6,464	1,277	14,860	26,910	6,470	8,813
Less than 0.30.....	199	22,786	20,306	908	130	2,059	3,664	588	2,531
0.30-0.39.....	143	31,507	24,916	1,633	240	3,939	7,045	1,384	1,925
0.40-0.49.....	144	16,553	13,278	1,200	188	2,749	4,944	888	1,262
0.50-0.59.....	111	11,406	8,699	906	181	2,042	3,777	918	923
0.60-0.69.....	66	5,662	4,227	525	145	1,179	2,276	381	562
0.70-0.79.....	40	3,083	2,254	323	83	726	1,280	393	301
0.80-0.89.....	23	2,092	1,412	220	53	504	951	240	202
0.90-0.99.....	19	1,991	1,291	142	92	301	595	603	159
1.00 and over.....	110	4,147	1,963	607	165	1,361	2,378	1,075	855
Unclassified ¹	144	778	452	...	...	...	...	...	93
West North Central, total.....	685	48,181	35,932	3,700	675	8,551	13,977	2,566	5,131
Less than 0.30.....	141	11,914	10,222	589	61	1,308	2,021	183	1,303
0.30-0.39.....	90	8,578	6,981	486	134	1,155	1,936	441	576
0.40-0.49.....	74	7,412	5,990	627	81	1,432	2,280	393	967
0.50-0.59.....	78	6,599	4,836	574	59	1,399	2,311	241	458
0.60-0.69.....	44	4,001	2,374	307	62	721	1,269	235	481
0.70-0.79.....	28	2,056	1,350	202	42	448	819	189	162
0.80-0.89.....	30	2,687	1,837	258	86	622	1,127	417	194
0.90-0.99.....	6	782	516	99	25	230	361	113	198
1.00 and over.....	95	3,049	1,315	558	125	1,236	1,853	354	762
Unclassified ¹	99	1,103	511	...	...	...	...	...	30
South Atlantic, total.....	266	42,303	31,622	2,844	784	6,963	9,217	3,168	3,278
Less than 0.30.....	62	10,599	8,891	525	153	1,303	1,736	556	792
0.30-0.39.....	42	14,326	10,519	550	290	1,446	1,894	1,306	1,128
0.40-0.49.....	36	6,355	4,381	499	71	1,214	1,599	316	220
0.50-0.59.....	31	3,630	2,975	399	57	1,001	1,337	229	231
0.60-0.69.....	14	3,519	2,447	396	51	1,047	1,325	262	447
0.70-0.79.....	15	1,937	1,230	244	34	508	715	202	124
0.80-0.89.....	8	275	194	44	13	93	125	35	19
0.90-0.99.....	1								
1.00 and over.....	39	1,342	748	187	115	351	486	262	281
Unclassified ¹	18	320	237	...	...	...	...	...	36

See footnotes at end of table.

Table 9.—GENERAL STATISTICS FOR COMMON SAND AND GRAVEL ESTABLISHMENTS CLASSIFIED BY RATIO OF WAGES AND SALARIES TO VALUE ADDED IN MINING, BY GEOGRAPHIC DIVISIONS, AND FOR GLASS SAND AND FOUNDRY SAND ESTABLISHMENTS FOR THE UNITED STATES: 1954--Continued

(For explanation of column captions, see INTRODUCTION)

Subindustry, geographic division, and ratio of wages and salaries to value added in mining	Number of establish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (1,000)	All other employees (\$1,000)	
COMMON SAND AND GRAVEL SUBINDUSTRY--Continued									
East South Central, total.....	117	18,639	13,720	1,802	246	4,410	5,590	1,063	1,375
Less than 0.30.....	22	2,422	2,446	161	11	338	353	26	117
0.30-0.39.....	23	3,964	2,939	323	16	727	949	85	228
0.40-0.49.....	21	5,531	4,151	447	88	1,143	1,479	369	547
0.50-0.59.....	14	2,176	1,440	209	29	496	651	139	212
0.60-0.69.....	12	1,549	1,070	188	23	503	557	116	103
0.70-0.79.....	5	526	399	54	35	132	166	136	12
0.80-0.89.....	6	1,582	955	214	15	568	722	102	140
0.90-0.99.....	2								
1.00 and over.....	12								
Unclassified ¹.....	...	889	620	206	29	503	713	90	16
West South Central, total.....	293	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Less than 0.30.....	65	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
0.30-0.39.....	55	8,425	6,458	670	54	1,694	2,049	223	441
0.40-0.49.....	38	7,379	5,147	630	44	1,536	1,997	232	520
0.50-0.59.....	48	9,855	6,446	949	88	2,510	3,061	406	1,025
0.60-0.69.....	12	2,283	1,359	253	24	625	812	76	39
0.70-0.79.....	8	2,563	1,222	201	34	538	737	175	149
0.80-0.89.....	11	1,550	986	266	25	686	759	90	423
0.90-0.99.....	2								
1.00 and over.....	30								
Unclassified ¹	24	309	155	...	...	...	...	...	10
Mountain, total.....	277	21,671	15,783	1,305	234	2,760	5,274	1,066	2,071
Less than 0.30.....	62	7,377	6,605	261	26	490	914	89	361
0.30-0.39.....	38	2,863	2,144	168	23	337	683	87	362
0.40-0.49.....	31	2,886	2,166	209	33	477	836	123	254
0.50-0.59.....	24	3,347	1,935	184	46	381	760	270	364
0.60-0.69.....	16	1,655	1,300	122	49	341	566	247	207
0.70-0.79.....	9	344	249	43	5	82	165	19	20
0.80-0.89.....	9	1,344	804	111	34	235	501	174	161
0.90-0.99.....	4	494	338	63	2	121	308	10	51
1.00 and over.....	40	1,041	4	144	16	296	541	47	283
Unclassified ¹	44	320	238	...	...	...	...	...	8
Pacific, total.....	520	88,177	69,349	4,325	1,191	8,935	20,674	6,304	5,690
Less than 0.30.....	123	27,984	25,121	876	131	1,795	4,135	655	863
0.30-0.39.....	83	19,792	16,261	991	150	2,052	4,852	772	1,184
0.40-0.49.....	78	14,258	11,126	778	172	1,683	3,900	953	1,296
0.50-0.59.....	53	11,471	7,685	590	200	1,212	2,893	1,265	843
0.60-0.69.....	32	5,663	3,753	360	146	787	1,732	654	319
0.70-0.79.....	22	3,393	2,022	238	125	492	1,065	460	96
0.80-0.89.....	17	1,190	738	132	26	228	520	108	256
0.90-0.99.....	11	790	522	76	25	154	342	146	107
1.00 and over.....	45	3,089	1,612	284	216	532	1,235	1,291	710
Unclassified ¹	56	547	509	...	...	...	...	...	16
GLASS SAND SUBINDUSTRY									
United States, total.....	44	18,591	13,701	1,144	151	2,505	4,279	819	1,081
Less than 0.30.....	9	3,208	2,722	100	20	217	452	146	147
0.30-0.39.....	13	9,128	6,563	467	57	1,053	1,820	335	226
0.40-0.49.....	6	4,049	3,137	314	30	700	1,285	163	339
0.50-0.59.....	2	1,774	1,038	194	34	372	515	141	325
0.60-0.69.....	2								
0.70-0.79.....	2								
0.80-0.89.....	1	418	229	69	10	163	207	34	44
0.90-0.99.....	1								
1.00 and over.....	5								
Unclassified ¹	3	14	12	...	...	...	...	...	...
FOUNDRY SAND SUBINDUSTRY									
United States, total.....	131	11,762	8,982	966	115	1,998	3,087	570	745
Less than 0.30.....	29	2,583	2,191	143	14	290	450	49	235
0.30-0.39.....	24	4,520	3,515	295	37	607	1,009	252	250
0.40-0.49.....	18	2,263	1,773	220	14	467	728	72	89
0.50-0.59.....	14	739	521	70	12	159	239	49	49
0.60-0.69.....	9	328	243	60	4	108	144	10	17
0.70-0.79.....	3	269	184	23	4	46	77	21	5
0.80-0.89.....	1								
0.90-0.99.....	4								
1.00 and over.....	17	413	170	75	21	119	173	85	69
Unclassified ¹	12	197	105	...	...	...	...	...	2

(D) Withheld to avoid approximately disclosing figures of individual companies.

¹Represents establishments reporting less than \$500 for wages and salaries.

Table 10.—HORSEPOWER OF POWER EQUIPMENT USED IN THE SAND AND GRAVEL INDUSTRY IN THE UNITED

(For explanation of column

	Subindustry, geographic division, and State	Aggregate horsepower per production worker	Aggregate horsepower (prime movers and electric motors driven by purchased energy)				
			Total	Loading equipment	By type of equipment		All other equipment
					Transportation equipment		
					Highway type	Other	
1	United States, total ¹	105	3,209,992	1,032,156	1,156,060	193,042	828,734
2	Common sand and gravel subindustry.....	108	3,068,234	991,540	1,113,750	182,638	780,306
3	Glass sand subindustry.....	48	54,712	11,366	8,411	4,438	30,497
4	Foundry sand subindustry.....	90	87,046	29,250	33,899	5,966	17,931
5	New England, total.....	114	135,773	46,263	58,228	3,954	27,328
6	Maine.....	99	6,541	2,420	2,385	...	1,736
7	New Hampshire.....	97	8,412	2,333	4,249	...	1,830
8	Vermont.....	125	9,772	2,808	4,303	...	2,661
9	Massachusetts.....	99	60,950	22,015	27,370	888	10,677
10	Rhode Island.....	170	12,780	2,787	6,611	812	2,570
11	Connecticut.....	138	37,318	13,900	13,310	2,254	7,854
12	Middle Atlantic, total.....	91	329,251	115,550	106,021	17,730	89,950
13	New York.....	111	158,725	56,735	56,259	6,437	39,294
14	New Jersey.....	98	83,125	31,601	27,538	3,564	20,422
15	Pennsylvania.....	65	87,401	27,214	22,224	7,729	30,234
16	East North Central, total.....	108	745,963	286,789	190,016	48,210	220,948
17	Ohio.....	98	184,481	73,638	38,932	8,677	63,234
18	Indiana.....	115	120,983	44,543	34,551	4,335	37,554
19	Illinois.....	87	140,794	59,752	22,634	15,538	42,870
20	Michigan.....	118	172,210	69,047	44,024	7,240	51,899
21	Wisconsin.....	146	127,495	39,809	49,875	12,420	25,391
22	West North Central, total.....	129	490,765	153,852	204,897	19,709	112,307
23	Minnesota.....	148	119,874	30,926	58,316	5,037	25,595
24	Iowa.....	163	94,974	31,506	36,474	5,188	21,806
25	Missouri.....	74	50,002	20,833	8,543	5,010	15,616
26	North Dakota and South Dakota.....	124	70,942	15,688	36,046	2,449	16,759
27	Nebraska.....	127	77,699	27,371	38,286	810	11,232
28	Kansas.....	141	77,274	27,528	27,232	1,215	21,299
29	South Atlantic, total.....	76	251,692	81,129	77,797	28,275	64,491
30	Delaware.....	209	9,005	2,507	5,063	592	843
31	Maryland.....	77	61,621	19,122	26,414	2,992	13,093
32	Virginia.....	92	52,147	17,440	13,842	5,988	14,877
33	West Virginia.....	42	25,520	6,393	5,475	1,741	11,911
34	North Carolina.....	76	31,980	8,611	8,748	3,440	6,181
35	South Carolina.....	108	30,859	7,929	6,836	6,702	9,392
36	Georgia.....	72	21,479	9,127	6,747	1,072	4,533
37	Florida.....	67	19,081	10,000	4,672	748	3,661
38	East South Central, total.....	65	123,845	45,090	39,582	9,208	29,965
39	Kentucky.....	79	25,436	9,675	5,372	4,890	5,499
40	Tennessee.....	50	35,074	9,944	12,626	3,183	9,321
41	Alabama.....	81	32,478	11,105	12,565	380	8,428
42	Mississippi.....	64	30,857	14,366	9,019	755	6,717
43	West South Central, total.....	70	281,649	107,591	86,525	13,586	73,947
44	Arkansas.....	60	24,194	7,463	7,352	2,024	7,355
45	Louisiana.....	56	56,889	28,055	12,622	1,880	14,332
46	Oklahoma.....	84	27,504	11,145	5,280	1,160	9,919
47	Texas.....	76	173,062	60,928	61,271	8,522	42,341
48	Mountain, total.....	170	231,288	57,264	121,423	9,718	42,883
49	Montana.....	149	27,936	5,438	15,134	1,250	6,114
50	Idaho.....	257	45,782	13,137	20,019	2,267	10,359
51	Wyoming.....	192	14,757	3,174	8,015	65	3,503
52	Colorado.....	131	51,227	16,335	22,534	1,246	11,112
53	New Mexico.....	285	40,969	4,729	32,714	1,305	2,221
54	Arizona.....	177	16,299	3,532	8,923	1,475	2,369
55	Utah.....	138	20,207	7,169	7,760	775	4,503
56	Nevada.....	97	14,111	3,750	6,324	1,335	2,702
57	Pacific, total.....	140	619,766	138,628	271,571	42,652	166,915
58	Washington.....	167	111,377	20,849	53,211	3,405	33,912
59	Oregon.....	113	92,008	23,456	35,053	5,079	28,420
60	California.....	141	416,381	94,323	183,307	34,168	104,583
61	Alaska and Hawaii ¹	370	9,990	1,470	6,810	1,200	510

¹Figures for Alaska and Hawaii are not included in the United States totals.

STATES, BY GEOGRAPHIC DIVISIONS, AND STATES AND BY SUBINDUSTRY FOR THE UNITED STATES: 1954
captions, see INTRODUCTION)

Prime movers (horsepower)							Electric motors (horsepower)						
Total	By type of equipment			By use			Total	By type of equipment			By source of power		
	Loading equipment	Transportation equipment		All other equipment	Driving generators	Not driving generators		Loading equipment	Transportation equipment	All other equipment	Driven by purchased energy	Driven by energy generated and used at same establishment	
		Highway type	Other										
2,588,389	915,126	1,156,060	181,068	336,135	45,552	2,542,837	649,908	122,604	19,678	507,626	621,603	28,305	1
2,497,583	883,632	1,113,750	171,185	329,016	44,671	2,452,912	598,738	113,428	19,157	466,153	570,651	28,087	2
22,400	8,538	8,411	4,408	1,043	...	22,400	32,312	2,828	30	29,454	32,312	...	3
68,406	22,956	33,899	5,475	6,076	881	67,525	18,858	6,348	491	12,019	18,640	218	4
118,450	45,293	58,228	3,471	11,458	1,567	116,883	18,943	1,111	780	17,052	17,323	1,620	5
5,841	2,420	2,385	...	1,036	125	5,716	800	...	...	800	700	100	6
6,677	2,258	4,249	...	170	...	6,677	1,735	75	...	1,660	1,735	...	7
8,970	2,790	4,303	...	1,877	400	8,570	1,138	100	...	1,038	802	336	8
53,414	21,684	27,370	658	3,702	342	53,072	7,536	331	230	6,975	7,536	...	9
11,741	2,742	6,611	812	1,576	...	11,741	1,039	45	...	994	1,039	...	10
31,807	13,399	13,310	2,001	3,097	700	31,107	6,695	560	550	5,585	5,511	1,184	11
250,186	99,269	106,021	16,307	28,589	8,784	241,402	81,301	16,649	1,423	63,229	79,065	2,236	12
128,060	51,043	56,259	5,591	15,167	4,372	123,688	31,533	5,692	846	24,995	30,665	868	13
60,486	24,449	27,538	3,281	5,218	1,302	59,184	22,914	7,167	283	15,464	22,639	275	14
61,640	23,777	22,224	7,435	8,204	3,110	58,530	26,854	3,790	294	22,770	25,761	1,093	15
556,420	247,335	190,016	46,235	72,834	15,925	540,495	202,509	42,125	9,047	151,337	189,543	12,966	16
125,704	64,486	38,932	7,719	14,567	1,215	124,489	60,431	9,280	958	50,193	58,777	1,654	17
89,241	38,247	34,551	4,177	12,266	2,273	86,968	33,342	6,996	158	26,188	31,742	1,600	18
97,696	46,689	22,634	15,130	13,243	9,907	87,789	52,555	14,896	7,480	30,179	43,098	9,457	19
130,939	60,116	44,024	7,124	19,675	2,007	128,932	41,501	8,941	116	32,444	41,271	230	20
112,840	37,797	49,875	12,085	13,083	523	112,317	14,680	2,012	335	12,333	14,655	25	21
437,070	142,572	204,897	19,664	69,937	6,181	430,889	57,604	11,415	45	46,144	53,695	3,909	22
107,889	29,037	58,316	5,002	15,534	1,793	106,096	13,250	1,949	35	11,266	11,985	1,265	23
80,849	29,163	36,474	5,188	10,024	1,143	79,706	14,760	2,343	...	12,417	14,125	635	24
38,711	18,654	8,543	5,005	6,509	615	38,096	11,411	2,179	5	9,227	11,291	120	25
67,763	15,365	36,046	2,449	13,903	2,260	65,503	5,068	398	...	4,670	3,179	1,889	26
71,184	24,712	38,286	810	7,376	...	71,184	6,515	2,659	...	3,856	6,515	...	27
70,674	25,641	27,232	1,210	16,591	370	70,304	6,600	1,887	5	4,708	6,600	...	28
201,082	71,774	77,797	26,418	25,093	2,717	198,365	51,941	9,775	2,052	40,114	50,610	1,331	29
8,590	2,475	5,063	592	460	...	8,590	415	32	...	383	415	...	30
51,685	17,841	26,414	2,962	4,468	...	51,685	9,936	1,281	30	8,625	9,936	...	31
42,096	15,467	13,842	5,898	6,889	...	42,096	10,051	1,973	90	7,988	10,051	...	32
16,964	6,060	5,475	1,576	3,853	2,079	14,885	9,794	753	360	8,681	8,556	1,238	33
25,776	7,199	8,748	7,150	2,679	300	25,476	6,297	1,412	1,290	3,595	6,204	93	34
22,529	7,639	6,836	6,695	1,359	211	22,318	8,330	290	7	8,033	8,330	...	35
18,066	7,227	6,747	1,022	3,070	...	18,066	3,413	1,900	50	1,463	3,413	...	36
15,376	7,866	4,672	523	2,315	127	15,249	3,705	2,134	225	1,346	3,705	...	37
97,234	35,101	39,582	8,437	14,114	3,571	93,663	29,150	11,124	911	17,115	26,611	2,539	38
22,515	8,329	5,372	4,789	4,025	3,271	19,244	5,110	2,481	241	2,388	2,921	2,189	39
26,403	7,719	12,626	2,733	3,325	...	26,403	8,671	2,225	450	5,996	8,671	...	40
24,514	7,472	12,565	160	4,317	...	24,514	7,964	3,633	220	4,111	7,964	...	41
23,802	11,581	9,019	755	2,447	300	23,502	7,405	2,785	...	4,620	7,055	350	42
223,311	94,617	86,525	12,811	29,358	2,044	221,267	59,086	13,218	775	45,093	58,338	748	43
18,872	7,018	7,352	2,014	2,488	118	18,754	5,377	445	10	4,922	5,322	55	44
40,570	20,435	12,622	1,225	6,288	804	39,766	16,534	7,620	655	8,259	16,319	215	45
17,855	8,162	5,280	1,117	3,296	...	17,855	9,649	2,983	43	6,623	9,649	...	46
146,014	59,002	61,271	8,455	17,286	1,122	144,892	27,526	2,170	67	25,289	27,048	478	47
211,897	54,211	121,423	9,053	27,210	2,385	209,512	21,222	3,513	665	17,044	19,391	1,831	48
23,862	4,743	15,134	1,250	2,735	...	23,862	4,074	695	...	3,379	4,074	...	49
43,081	12,842	20,019	2,267	7,953	670	42,411	2,921	295	...	2,626	2,701	220	50
14,571	3,174	8,015	65	3,317	760	13,811	744	20	...	724	186	558	51
46,591	15,242	22,534	1,001	7,814	250	46,341	4,692	1,093	245	3,354	4,636	56	52
40,502	4,562	32,714	1,305	1,921	395	40,107	1,164	607	...	557	467	697	53
14,129	3,532	8,923	1,255	419	...	14,129	2,170	...	220	1,950	2,170	...	54
16,668	6,456	7,760	700	1,752	...	16,668	3,539	713	75	2,751	3,539	...	55
12,493	3,660	6,324	1,210	1,299	310	12,183	1,918	90	125	1,703	1,618	300	56
492,739	124,954	271,571	38,672	57,542	2,378	490,361	128,152	13,674	3,980	110,498	127,027	1,125	57
93,280	18,593	53,211	3,185	18,291	1,260	92,020	18,750	2,256	220	16,274	18,097	653	58
72,520	20,539	35,053	5,004	11,924	1,118	71,402	19,960	2,917	75	16,968	19,488	472	59
326,939	85,822	183,307	30,483	27,327	...	326,939	89,442	8,501	3,685	77,256	89,442	...	60
9,960	1,470	6,810	1,200	480	...	9,960	30	...	...	30	30	...	61

Table 11.—NUMBER OF POWER LOADING MACHINES IN THE SAND AND GRAVEL INDUSTRY AND SUBINDUSTRIES IN THE UNITED STATES, 1954 AND 1939, AND BY GEOGRAPHIC DIVISIONS: 1954

Type of loading equipment	Sand and gravel industry: United States							
	1954				1939			
	Total	Common sand and gravel sub-industry	Glass sand sub-industry	Foundry sand sub-industry	Total	Common sand and gravel subindustry	Glass sand subindustry	Foundry sand subindustry
All loading equipment, total ²	11,482	10,973	153	356	4,051	3,787	84	180
By kind of power used:								
Steam.....	148	134	...	14	624	584	9	31
Electric and Diesel-electric.....	1,298	1,185	60	53	856	789	37	30
Diesel.....	4,365	4,204	47	114	2,571	2,414	38	119
Gasoline and other.....	5,671	5,450	46	175				
Power shovels, total.....	3,228	3,038	55	135	1,214	1,090	41	83
By kind of power used:								
Steam.....	19	9	...	10	189	170	3	16
Electric and Diesel-electric.....	127	117	3	7	114	98	12	4
Diesel.....	1,186	1,114	28	44	911	822	26	63
Gasoline and other.....	1,896	1,798	24	74				
By dipper or bucket capacity (cubic yards):								
Less than 3.....	3,095	2,914	55	126	1,167	1,043	41	83
3-5 inclusive.....	117	108	...	9	47	47	...	...
6-12 inclusive.....	16	16	...	...	...	...	...	...
Dragline excavators, total.....	2,726	2,672	16	38	667	646	4	17
By kind of power used:								
Steam.....	24	24	...	...	71	70	...	1
Electric and Diesel-electric.....	201	190	4	7	180	175	1	4
Diesel.....	1,161	1,147	...	14	416	401	3	12
Gasoline and other.....	1,340	1,311	12	17				
By dipper or bucket capacity (cubic yards):								
Less than 3.....	2,513	2,464	14	35	606	585	4	17
3-5 inclusive.....	195	190	2	3	55	55	...	...
6-12 inclusive.....	13	13	...	...	6	6	...	...
More than 12.....	5	5	...	...		
Scraper loaders, total.....	694	659	10	25	253	242	5	6
By kind of power used:								
Steam.....	2	2	...	...	4	2	...	2
Electric and Diesel-electric.....	114	107	2	5	85	82	1	2
Diesel.....	343	325	7	11	164	158	4	2
Gasoline and other.....	235	225	1	9				
By rated horsepower:								
Less than 10.....	178	166	2	10	17	17	...	...
10-25 inclusive.....	80	76	1	3	74	70	1	3
26-100 inclusive.....	290	279	2	9	154	149	3	2
More than 100.....	146	138	5	3	8	6	1	1
Clamshell and orange peel loaders, total.....	1,321	1,285	14	22	845	816	10	19
By kind of power used:								
Steam.....	63	59	...	4	239	229	...	10
Electric and Diesel-electric.....	158	147	7	4	106	97	7	2
Diesel.....	447	433	5	9	500	490	3	7
Gasoline and other.....	653	646	2	5				
Sand and gravel pumps, total.....	1,378	1,300	47	31	652	614	23	15
By kind of power used:								
Steam.....	20	20	...	...	82	74	6	2
Electric and Diesel-electric.....	506	450	43	13	311	282	16	13
Diesel.....	530	523	1	6	259	258	1	...
Gasoline and other.....	322	307	3	12				
Dredges, total.....	201	201	...	...	35	35	...	...
By kind of power used:								
Steam.....	18	18	...	...	29	29	...	...
Electric and Diesel-electric.....	76	76	...	...	5	5	...	...
Diesel.....	63	63	...	...	1	1	...	...
Gasoline and other.....	44	44	...	...		
All other types of equipment, total.....	1,934	1,818	11	105	385	344	1	40
By kind of power used:								
Steam.....	2	2	...	...	10	10	...	...
Electric and Diesel-electric.....	116	98	1	17	55	50	...	5
Diesel.....	635	599	6	30	320	284	1	35
Gasoline and other.....	1,181	1,119	4	58				

See footnotes at end of table.

Table 11.—NUMBER OF POWER LOADING MACHINES IN THE SAND AND GRAVEL INDUSTRY AND SUBINDUSTRIES IN THE UNITED STATES, 1954 AND 1939, AND BY GEOGRAPHIC DIVISIONS: 1954—Continued

Type of loading equipment	Common sand and gravel subindustry (1954)										
	United States, total ¹	New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific	Alaska and Hawaii ¹
All loading equipment, total ²	10,973	539	1,123	3,090	1,917	791	449	1,038	587	1,439	16
By kind of power used:											
Steam.....	134	1	15	42	16	32	19	...	...	9	...
Electric and Diesel-electric.....	1,185	19	114	414	183	114	76	93	44	128	...
Diesel.....	4,204	153	320	999	785	367	237	574	275	494	12
Gasoline and other.....	5,450	366	674	1,635	933	278	117	371	268	808	4
Power shovels, total.....	3,038	342	491	830	357	154	52	98	230	484	6
By kind of power used:											
Steam.....	9	...	1	3	4	...	1	...	...	...	...
Electric and Diesel-electric.....	117	7	23	34	18	5	2	1	4	23	...
Diesel.....	1,114	102	152	301	140	72	35	42	111	159	5
Gasoline and other.....	1,798	233	315	492	195	77	14	55	115	302	1
By dipper or bucket capacity (cubic yards):											
Less than 3.....	2,914	328	474	778	356	143	51	95	221	468	6
3-5 inclusive.....	108	13	17	42	1	8	1	3	9	14	...
6-12 inclusive.....	16	1	...	10	...	3	...	...	...	2	...
Dragline excavators, total.....	2,672	32	125	860	480	165	111	466	104	329	6
By kind of power used:											
Steam.....	24	...	1	10	3	2	3	...	...	5	...
Electric and Diesel-electric.....	190	2	26	51	19	7	10	9	17	49	...
Diesel.....	1,147	15	32	307	165	103	69	290	46	120	5
Gasoline and other.....	1,311	15	66	492	293	53	29	167	41	155	1
By dipper or bucket capacity (cubic yards):											
Less than 3.....	2,464	32	120	804	462	150	104	398	100	294	6
3-5 inclusive.....	190	...	3	53	15	13	7	63	4	32	...
6-12 inclusive.....	13	...	1	3	...	2	...	4	...	3	...
More than 12.....	5	...	1	...	3	...	...	1	...	...	...
Scraper loaders, total.....	659	15	38	173	145	39	15	45	85	104	...
By kind of power used:											
Steam.....	2	1	...	1	...	...	...	...	...	...	...
Electric and Diesel-electric.....	107	2	6	42	22	7	...	3	12	13	...
Diesel.....	325	6	13	70	63	23	12	33	54	51	...
Gasoline and other.....	225	6	19	60	60	9	3	9	19	40	...
By rated horsepower:											
Less than 10.....	166	5	13	50	33	13	5	11	13	23	...
10-25 inclusive.....	76	...	8	21	20	...	2	2	13	10	...
26-100 inclusive.....	279	5	10	83	61	19	6	28	34	33	...
More than 100.....	138	5	7	19	31	7	2	4	25	38	...
Clamshell and orange peel loaders, total.....	1,285	30	145	367	184	144	86	123	13	193	...
By kind of power used:											
Steam.....	59	...	7	17	5	18	9	...	...	3	...
Electric and Diesel-electric.....	147	1	12	44	23	26	21	9	1	10	...
Diesel.....	433	5	33	113	68	50	25	80	6	53	...
Gasoline and other.....	646	24	93	193	88	50	31	34	6	127	...
Sand and gravel pumps, total.....	1,300	8	64	314	393	158	124	174	19	46	...
By kind of power used:											
Steam.....	20	...	2	11	4	1	2	...	...	...	...
Electric and Diesel-electric.....	450	2	24	173	77	46	37	58	7	26	...
Diesel.....	523	3	26	68	205	69	69	70	5	8	...
Gasoline and other.....	307	3	12	62	107	42	16	46	7	12	...
Dredges, total.....	201	1	25	73	33	29	11	20	4	5	...
By kind of power used:											
Steam.....	18	...	4	...	...	9	4	...	...	1	...
Electric and Diesel-electric.....	76	1	7	33	12	9	3	9	...	2	...
Diesel.....	63	...	8	23	13	4	4	8	2	1	...
Gasoline and other.....	44	...	6	17	8	7	...	3	2	1	...
All other types of equipment.....	1,818	111	235	473	325	102	50	112	132	278	4
By kind of power used:											
Steam.....	2	...	...	...	...	2	...	...	...	...	...
Electric and Diesel-electric.....	98	4	16	37	12	14	3	4	3	5	...
Diesel.....	599	22	56	117	131	46	23	51	51	102	2
Gasoline and other.....	1,119	85	163	319	182	40	24	57	78	171	2

See footnotes at end of table.

Table 11.—NUMBER OF POWER LOADING MACHINES IN THE SAND AND GRAVEL INDUSTRY AND SUBINDUSTRIES IN THE UNITED STATES, 1954 AND 1939, AND BY GEOGRAPHIC DIVISIONS: 1954—Continued

Type of loading equipment	Glass sand subindustry (1954)									
	United States, total	New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific
All loading equipment, total ²	153	1	29	17	13	26	2	46	8	11
By kind of power used:										
Steam.....	...	...	...	...	...	...	...	...	...	...
Electric and Diesel-electric.....	60	...	14	4	2	7	...	27	5	1
Diesel.....	47	...	9	9	8	11	...	6	...	4
Gasoline and other.....	46	1	6	4	3	8	2	13	3	6
Power shovels, total.....	55	1	11	7	5	18	1	6	3	3
By kind of power used:										
Steam.....	...	...	...	...	...	...	...	...	...	...
Electric and Diesel-electric.....	3	...	1	...	...	2	...	...	...	...
Diesel.....	28	...	5	5	4	9	...	4	...	1
Gasoline and other.....	24	1	5	2	1	7	1	2	3	2
By dipper or bucket capacity (cubic yards):										
Less than 3.....	55	1	11	7	5	18	1	6	3	3
3-5 inclusive.....	...	...	...	...	...	...	...	...	...	...
6-12 inclusive.....	...	...	...	...	...	...	...	...	...	...
Dragline excavators, total.....	16	...	...	2	1	1	...	8	...	4
By kind of power used:										
Steam.....	...	...	...	...	...	...	...	...	...	...
Electric and Diesel-electric.....	4	...	...	1	...	1	...	1	...	1
Diesel.....	...	...	...	...	...	...	...	...	...	...
Gasoline and other.....	12	...	...	1	1	...	...	7	...	3
By dipper or bucket capacity (cubic yards):										
Less than 3.....	14	...	...	1	1	1	...	8	...	3
3-5 inclusive.....	2	...	...	1	...	...	...	...	...	1
6-12 inclusive.....	...	...	...	...	...	...	...	...	...	...
More than 12.....	...	...	...	...	...	...	...	...	...	...
Scraper loaders, total.....	10	...	4	1	...	...	...	1	2	2
By kind of power used:										
Steam.....	...	...	...	...	...	...	...	...	...	...
Electric and Diesel-electric.....	2	...	...	...	...	...	...	...	2	...
Diesel.....	7	...	4	1	...	...	...	1	...	1
Gasoline and other.....	1	...	...	...	...	...	...	...	...	1
By rated horsepower:										
Less than 10.....	2	...	...	...	...	...	...	1	...	1
10-25 inclusive.....	1	...	...	...	...	...	...	...	1	...
26-100 inclusive.....	2	...	...	...	...	...	...	...	1	1
More than 100.....	5	...	4	1	...	...	...	...	...	...
Clamshell and orange peel loaders, total.....	14	...	1	7	3	2	...	1	...	...
By kind of power used:										
Steam.....	...	...	...	...	...	...	...	...	...	...
Electric and Diesel-electric.....	7	...	...	3	1	2	...	1	...	...
Diesel.....	5	...	...	3	2	...	...	...	...	...
Gasoline and other.....	2	...	1	1	...	...	...	...	...	...
Sand and gravel pumps, total.....	47	...	13	...	2	3	1	25	...	3
By kind of power used:										
Steam.....	...	...	...	...	...	...	...	...	...	...
Electric and Diesel-electric.....	43	...	13	...	1	2	...	24	3	...
Diesel.....	1	...	...	...	1	...	...	...	...	...
Gasoline and other.....	3	...	...	...	...	1	1	1	...	...
Dredges, total.....	...	...	...	...	...	...	...	...	...	...
By kind of power used:										
Steam.....	...	...	...	...	...	...	...	...	...	...
Electric and Diesel-electric.....	...	...	...	...	...	...	...	...	...	...
Diesel.....	...	...	...	...	...	...	...	...	...	...
Gasoline and other.....	...	...	...	...	...	...	...	...	...	...
All other types of equipment, total.....	11	...	...	...	2	2	...	5	...	2
By kind of power used:										
Steam.....	...	...	...	...	...	...	...	...	...	...
Electric and Diesel-electric.....	1	...	...	...	...	...	...	1	...	...
Diesel.....	6	...	...	...	1	2	...	1	...	2
Gasoline and other.....	4	...	...	...	1	...	...	3	...	...

See footnotes at end of table.

Table 11.—NUMBER OF POWER LOADING MACHINES IN THE SAND AND GRAVEL INDUSTRY AND SUBINDUSTRIES IN THE UNITED STATES, 1954 AND 1939, AND BY GEOGRAPHIC DIVISIONS: 1954—Continued

Type of loading equipment	Foundry sand subindustry (1954)									
	United States, total	New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific
All loading equipment, total ²	356	13	109	137	14	11	26	17	13	16
By kind of power used:										
Steam.....	14	...	...	14	...	...	...	...	...	...
Electric and Diesel-electric.....	53	3	24	12	3	1	6	2	1	1
Diesel.....	114	8	33	45	1	7	8	2	4	6
Gasoline and other.....	175	2	52	66	10	3	12	13	8	9
Power shovels, total.....	135	4	43	60	5	...	15	3	1	4
By kind of power used:										
Steam.....	10	...	...	10	...	...	...	...	...	...
Electric and Diesel-electric.....	7	...	1	3	3	...	...	...	...	...
Diesel.....	44	2	22	13	...	...	5	...	...	2
Gasoline and other.....	74	2	20	34	2	...	10	3	1	2
By dipper or bucket capacity (cubic yards):										
Less than 3.....	126	4	40	54	5	...	15	3	1	4
3-5 inclusive.....	9	...	3	6	...	...	...	...	...	...
6-12 inclusive.....	...	...	...	...	...	...	...	...	...	...
Dragline excavators, total.....	38	2	4	16	...	5	1	3	4	3
By kind of power used:										
Steam.....	...	...	...	...	...	...	...	...	...	...
Electric and Diesel-electric.....	7	2	...	5	...	...	...	...	...	...
Diesel.....	14	...	4	5	...	3	...	1	...	1
Gasoline and other.....	17	...	...	6	...	2	1	2	4	2
By dipper or bucket capacity (cubic yards):										
Less than 3.....	35	2	2	15	...	5	1	3	4	3
3-5 inclusive.....	3	...	2	1	...	...	...	...	...	...
6-12 inclusive.....	...	...	...	...	...	...	...	...	...	...
Scraper loaders, total.....	25	...	6	12	...	1	...	...	2	4
By kind of power used:										
Steam.....	...	...	...	...	...	...	...	...	...	...
Electric and Diesel-electric.....	5	...	1	2	...	1	...	...	1	...
Diesel.....	11	...	2	9	...	...	...	...	...	...
Gasoline and other.....	9	...	3	1	...	...	...	...	1	4
By rated horsepower:										
Less than 10.....	10	...	2	6	...	1	...	...	1	...
10-25 inclusive.....	3	...	...	2	...	...	...	...	1	...
26-100 inclusive.....	9	...	2	4	...	...	...	...	...	3
More than 100.....	3	...	2	...	...	...	...	...	...	1
Clamshell and orange peel loaders, total.....	22	...	5	16	...	...	1	...	...	...
By kind of power used:										
Steam.....	4	...	...	4	...	...	...	...	...	...
Electric and Diesel-electric.....	4	...	4	...	...	...	...	...	...	...
Diesel.....	9	...	...	8	...	...	1	...	...	...
Gasoline and other.....	5	...	1	4	...	...	...	...	...	...
Sand and gravel pumps, total.....	31	1	7	7	4	4	4	3	1	...
By kind of power used:										
Steam.....	...	...	...	...	...	...	...	...	...	...
Electric and Diesel-electric.....	13	1	7	...	...	...	3	2	...	...
Diesel.....	6	...	...	...	...	4	1	...	1	...
Gasoline and other.....	12	...	...	7	4	...	...	1	...	...
Dredges, total.....	...	...	...	...	...	...	...	...	...	...
By kind of power used:										
Steam.....	...	...	...	...	...	...	...	...	...	...
Electric and Diesel-electric.....	...	...	...	...	...	...	...	...	...	...
Diesel.....	...	...	...	...	...	...	...	...	...	...
Gasoline and other.....	...	...	...	...	...	...	...	...	...	...
All other types of equipment.....	105	6	44	26	5	1	5	8	5	5
By kind of power used:										
Steam.....	...	...	...	...	...	...	...	...	...	...
Electric and Diesel-electric.....	17	...	11	2	...	...	3	...	...	1
Diesel.....	30	6	5	10	1	...	1	1	3	3
Gasoline and other.....	58	...	28	14	4	1	1	7	2	1

¹Figures for Alaska and Hawaii are not included in the United States totals.²Separate figures for surface and underground loading equipment were not provided for in the 1954 reports, but almost all of the equipment reported may be presumed for surface use. For 1939 provision was made for reporting surface equipment only.

Table 12.—MATERIALS, SUPPLIES, FUELS, AND ELECTRIC ENERGY USED IN THE SAND AND GRAVEL INDUSTRY AND SUBINDUSTRIES, BY GEOGRAPHIC DIVISIONS: 1954

(For explanation of line captions, see INTRODUCTION)

Item	Unit of measure for quantity	United States ¹											
		Sand and gravel industry, total		Common sand and gravel subindustry		Glass sand subindustry		Foundry sand subindustry					
		Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)				
Supplies used and products purchased for resale without further processing.....	.....	xxx	61,617	xxx	57,481	xxx	3,208	xxx	928				
Fuels used, total.....	Million kwh equivalent.	8,323	21,373	7,329	19,758	685	840	309	775				
Bituminous coal.....	1,000 short tons	218	1,252	157	985	55	253	6	14				
Distillate fuel oil.....	1,000 barrels...	1,709	7,641	1,539	6,888	67	295	103	458				
Residual fuel oil.....	....do.....	165	653	126	504	24	82	15	67				
Gas (natural and manufactured).	Million cu. ft..	2,053	415	1,783	309	261	103	9	3				
Other fuels.....	.....	xxx	11,412	xxx	11,072	xxx	107	xxx	233				
Electric energy purchased.....	Million kwh.....	734	9,997	649	8,797	61	807	24	393				
Electric energy generated and used	....do.....	32	xxx	32	xxx	...	...	...	...
New England													
Total		Maine		New Hampshire		Vermont		Massachusetts		Rhode Island		Connecticut	
Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
Supplies used and products purchased for resale without further processing.....	xxx 1,588	xxx 46	xxx 53	xxx 63	xxx 784	xxx 166	xxx 476						
Fuels used, total.....	255 859	13 45	13 45	19 73	105 382	21 83	84 231						
Bituminous coal.....	1 1	... ..	... ..	... ..	... ..	... ..	1 1						
Distillate fuel oil.....	48 207	(²) 7	4 22	2 11	18 92	4 27	18 48						
Residual fuel oil.....	2 12	(²) 1	... ..	... ..	2 11	... ..	... ..				
Gas (natural and manufactured).	3 (²)	... ..	... ..	... ..	3 (²)	... ..	... ..				
Other fuels.....	xxx 639	xxx 37	xxx 23	xxx 62	xxx 279	xxx 56	xxx 182						
Electric energy purchased.....	10 279	(²) 8	1 29	(²) 6	5 123	(²) 14	4 99						
Electric energy generated and used	1 xxx	... ..	... ..	... ..	... ..	... ..	xxx						
Middle Atlantic													
Total		New York											
Quantity	Cost (\$1,000)	Total		Common sand and gravel subindustry		Foundry sand subindustry							
		Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)				
Supplies used and products purchased for resale without further processing.....	xxx 8,282	xxx 2,991	xxx 2,928	xxx 63									
Fuels used, total.....	1,143 2,444	286 849	233 797	53 52									
Bituminous coal.....	59 285	5 4	(²) 1	5 3									
Distillate fuel oil.....	196 843	48 236	43 211	5 25									
Residual fuel oil.....	38 165	17 65	17 65	... ..								
Gas (natural and manufactured).	23 13	8 7	8 7	... ..								
Other fuels.....	xxx 1,138	xxx 537	xxx 513	xxx 24									
Electric energy purchased.....	103 1,608	39 517	39 514	(²) 3									
Electric energy generated and used	4 xxx	... ..	... ..	... ..						

See footnotes at end of table.

Table 12.—MATERIALS, SUPPLIES, FUELS, AND ELECTRIC ENERGY USED IN THE SAND AND GRAVEL INDUSTRY AND SUBINDUSTRIES,
BY GEOGRAPHIC DIVISIONS: 1954—Continued

(For explanation of line captions, see INTRODUCTION)

Item	Unit of measure for quantity	Middle Atlantic—Continued						
		New Jersey						
		Total		Common sand and gravel subindustry		Glass sand subindustry		
		Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	
Supplies used and products pur- chased for resale without further processing.....		xxx	2,439	xxx	1,424	xxx	827	
Fuels used, total.....	Million kwh equivalent.	255	691	168	454	41	97	
Bituminous coal.....	1,000 short tons	1	9	...	...	1	9
Distillate fuel oil.....	1,000 barrels...	97	366	56	196	19	83	
Residual fuel oil.....	.....do.....	9	48	8	22	...	...
Gas (natural and manufactured)..	Million cu. ft..	...	...	...	...	...	...
Other fuels.....	.....do.....	xxx	268	xxx	236	xxx	5
Electric energy purchased.....	Million kwh.....	33	577	14	281	8	128	
Electric energy generated and used.	.....do.....	...	...	...	...	...	...
Middle Atlantic—Continued								
New Jersey—Continued		Pennsylvania						
Foundry sand subindustry		Total		Common sand and gravel subindustry		Glass sand and foundry sand subindustries		
Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	
Supplies used and products pur- chased for resale without further processing.....	xxx	188	xxx	2,852	xxx	2,447	xxx	405
Fuels used, total.....	46	140	602	904	513	759	89	145
Bituminous coal.....	53	272	44	191	9	81
Distillate fuel oil.....	22	87	51	241	44	207	7	34
Residual fuel oil.....	1	26	12	52	12	52
Gas (natural and manufactured)..	15	6	14	6	1	(²)
Other fuels.....	xxx	27	xxx	333	xxx	303	xxx	30
Electric energy purchased.....	11	168	31	514	20	375	11	139
Electric energy generated and used.	4	xxx	4	xxx
East North Central								
Total		Ohio						
		Total		Common sand and gravel subindustry		Glass sand and foundry sand subindustries		
Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	
Supplies used and products pur- chased for resale without further processing.....	xxx	10,993	xxx	2,684	xxx	2,459	xxx	225
Fuels used, total.....	1,921	4,830	352	1,072	315	973	37	99
Bituminous coal.....	71	436	2	18	2	15	(²)	3
Distillate fuel oil.....	357	1,696	85	387	82	372	3	15
Residual fuel oil.....	40	146	2	9	2	9
Gas (natural and manufactured)..	277	97	115	45	44	5	71	40
Other fuels.....	xxx	2,455	xxx	613	xxx	572	xxx	41
Electric energy purchased.....	162	2,826	42	834	38	764	4	70
Electric energy generated and used.	15	xxx

See footnotes at end of table.

MINERAL INDUSTRIES--INDUSTRY STATISTICS

Table 12.—MATERIALS, SUPPLIES, FUELS, AND ELECTRIC ENERGY USED IN THE SAND AND GRAVEL INDUSTRY AND SUBINDUSTRIES,
BY GEOGRAPHIC DIVISIONS: 1954—Continued

(For explanation of line captions, see INTRODUCTION)

Item	Unit of measure for quantity	East North Central—Continued					
		Indiana					
		Total		Common sand and gravel subindustry		Foundry sand subindustry	
		Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
Supplies used and products pur- chased for resale without further processing.....	.....	xxx	1,585	xxx	1,543	xxx	42
Fuels used, total.....	Million kwh equivalent.	218	682	206	649	12	33
Bituminous coal.....	1,000 short tons	5	35	5	33	(²)	2
Distillate fuel oil.....	1,000 barrels...	39	198	32	170	7	28
Residual fuel oil.....	....do.....	(²)	1	(²)	1	...	...
Gas (natural and manufactured)..	Million cu. ft..	6	1	6	1	...	...
Other fuels.....	.....	xxx	447	xxx	444	xxx	3
Electric energy purchased.....	Million kwh.....	27	487	27	477	(²)	10
Electric energy generated and used.	....do.....	1	xxx	1	xxx	...	...
East North Central—Continued							
Illinois							
		Total		Common sand and gravel subindustry		Foundry sand subindustry	
		Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
Supplies used and products pur- chased for resale without further processing.....	xxx	3,651	xxx	3,583	xxx	68	
Fuels used, total.....	740	1,164	716	1,095	24	69	
Bituminous coal.....	58	337	58	337	...	...
Distillate fuel oil.....	71	313	60	266	11	47	
Residual fuel oil.....	14	44	14	44	...	...
Gas (natural and manufactured)..	142	47	142	47	...	...
Other fuels.....	xxx	423	xxx	401	xxx	22	
Electric energy purchased.....	42	661	40	630	2	31	
Electric energy generated and used.	14	xxx	14	xxx	...	...
East North Central—Continued							
Michigan							
		Total		Common sand and gravel subindustry		Glass sand and foundry sand subindustries	
		Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
Supplies used and products pur- chased for resale without further processing.....	xxx	1,915	xxx	1,749	xxx	166	
Fuels used, total.....	344	1,022	268	865	76	157	
Bituminous coal.....	4	31	3	25	1	6	
Distillate fuel oil.....	86	414	71	359	15	55	
Residual fuel oil.....	23	82	(²)	1	23	81	
Gas (natural and manufactured)..	14	4	14	4	...	...
Other fuels.....	xxx	491	xxx	476	xxx	15	
Electric energy purchased.....	41	647	36	575	5	72	
Electric energy generated and used.	...	...	...	...	...	...

See footnotes at end of table.

Table 12.—MATERIALS, SUPPLIES, FUELS, AND ELECTRIC ENERGY USED IN THE SAND AND GRAVEL INDUSTRY AND SUBINDUSTRIES,
BY GEOGRAPHIC DIVISIONS: 1954—Continued

(For explanation of line captions, see INTRODUCTION)

Item	Unit of measure for quantity	East North Central—Continued					
		Wisconsin					
		Total		Common sand and gravel subindustry		Glass sand and foundry sand subindustries	
		Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
Supplies used and products purchased for resale without further processing.....	.....	xxx	1,158	xxx	1,025	xxx	133
Fuels used, total.....	Million kwh equivalent.	267	890	223	752	44	138
Bituminous coal.....	1,000 short tons	2	15	2	15	...	...
Distillate fuel oil.....	1,000 barrels...	76	384	55	281	21	103
Residual fuel oil.....	.....do.....	1	10	(2)	2	1	8
Gas (natural and manufactured)..	Million cu. ft..	...	...	...	...	...	...
Other fuels.....	.....	xxx	481	xxx	454	xxx	27
Electric energy purchased.....	Million kwh.....	10	197	7	149	3	48
Electric energy generated and used.	.....do.....	12	xxx	12	xxx	...	...
West North Central							
Total		Minnesota		Iowa		Missouri	
Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
Supplies used and products purchased for resale without further processing.....	xxx 6,440	xxx 1,502	xxx 1,246	xxx 1,176			
Fuels used, total.....	1,202 3,405	221 761	195 573	162 359			
Bituminous coal.....	8 64	2 24	2 15	4 22			
Distillate fuel oil.....	306 1,170	42 223	56 236	40 194			
Residual fuel oil.....	12 42	(2) 1	...	(2) 1			
Gas (natural and manufactured)..	307 92	33 16	12 2	122 38			
Other fuels.....	xxx 2,037	xxx 497	xxx 320	xxx 104			
Electric energy purchased.....	146 915	9 173	107 268	13 163			
Electric energy generated and used.	2 xxx	1 xxx	... ..	... ..	
West North Central—Continued							
North Dakota and South Dakota		Nebraska		Kansas			
Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)		
Supplies used and products purchased for resale without further processing.....	xxx 331	xxx 1,131	xxx 1,054				
Fuels used, total.....	247 678	176 631	201 403				
Bituminous coal.....	(2) 2	(2) 1	... ..			
Distillate fuel oil.....	55 175	39 193	74 149				
Residual fuel oil.....	7 22	1 4	4 14				
Gas (natural and manufactured)..	91 25	8 3	41 8				
Other fuels.....	xxx 454	xxx 430	xxx 232				
Electric energy purchased.....	2 46	7 119	8 146				
Electric energy generated and used.	1 xxx	... ..	... ..	... ..

See footnotes at end of table.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 12.—MATERIALS, SUPPLIES, FUELS, AND ELECTRIC ENERGY USED IN THE SAND AND GRAVEL INDUSTRY AND SUBINDUSTRIES,
BY GEOGRAPHIC DIVISIONS: 1954—Continued

(For explanation of line captions, see INTRODUCTION)

Item	Unit of measure for quantity	South Atlantic							
		Total		Delaware		Maryland		Virginia	
		Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
Supplies used and products purchased for resale without further processing.....	.....	xxx	7,110	xxx	19	xxx	1,543	xxx	2,967
Fuels used, total.....	Million kwh equivalent.	1,093	2,266	14	48	258	699	307	407
Bituminous coal.....	1,000 short tons	64	356	...	...	10	123	24	32
Distillate fuel oil.....	1,000 barrels...	213	980	4	20	63	279	39	158
Residual fuel oil.....	.....do.....	9	46	...	...	...	...	3	12
Gas (natural and manufactured)..	Million cu. ft..	15	9	...	...	...	...	...	...
Other fuels.....	.....	xxx	875	xxx	28	xxx	297	xxx	205
Electric energy purchased.....	Million kwh.....	62	931	(²)	8	9	183	9	155
Electric energy generated and used.	....do.....	3	xxx	...	...	...	...	...	...
South Atlantic—Continued									
		West Virginia		North Carolina		South Carolina		Georgia	
		Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
Supplies used and products purchased for resale without further processing.....	xxx	1,046	xxx	524	xxx	260	xxx	336	xxx
Fuels used, total.....	278	367	56	179	57	172	61	192	62
Bituminous coal.....	29	189	...	...	1	8	(²)	4	...
Distillate fuel oil.....	25	129	18	88	15	69	27	128	22
Residual fuel oil.....	...	...	4	25	1	5	...	...	1
Gas (natural and manufactured)..	2	(²)	13	9	...	...	...	...	...
Other fuels.....	xxx	49	xxx	57	xxx	90	xxx	60	xxx
Electric energy purchased.....	18	220	6	89	13	138	3	59	4
Electric energy generated and used.	3	xxx	...	...	...	...	...	...	...
East South Central									
		Total		Kentucky		Tennessee			
						Total		Common sand and gravel subindustry	Foundry sand subindustry
		Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
Supplies used and products purchased for resale without further processing.....	xxx	2,729	xxx	781	xxx	746	xxx	693	xxx
Fuels used, total.....	455	1,196	102	219	153	374	140	333	13
Bituminous coal.....	12	86	4	33	5	34	5	34	...
Distillate fuel oil.....	120	564	32	130	32	164	26	136	6
Residual fuel oil.....	11	74	2	7	9	66	9	64	(²)
Gas (natural and manufactured)..	90	23	8	4	66	13	66	13	...
Other fuels.....	xxx	449	xxx	45	xxx	97	xxx	86	xxx
Electric energy purchased.....	32	379	1	33	10	102	9	91	1
Electric energy generated and used.	4	xxx	4	xxx	...	...	...	...	...

See footnotes at end of table.

Table 12.—MATERIALS, SUPPLIES, FUELS, AND ELECTRIC ENERGY USED IN THE SAND AND GRAVEL INDUSTRY AND SUBINDUSTRIES,
BY GEOGRAPHIC DIVISIONS: 1954—Continued

(For explanation of line captions, see INTRODUCTION)

Item	Unit of measure for quantity	East South Central—Continued				West South Central			
		Alabama		Mississippi		Total		Arkansas	
		Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
Supplies used and products purchased for resale without further processing.....	.....	xxx	213	xxx	989	xxx	7,606	xxx	1,083
Fuels used, total.....	Million kwh equivalent.	74	231	126	372	783	2,191	41	184
Bituminous coal.....	1,000 short tons	1	5	2	14	2	12	...	...
Distillate fuel oil.....	1,000 barrels...	18	92	38	178	192	936	13	86
Residual fuel oil.....	....do.....	...	...	(²)	1	32	106	1	29
Gas (natural and manufactured)...	Million cu. ft..	10	4	6	2	392	55	10	2
Other fuels.....	.....	xxx	130	xxx	177	xxx	1,082	xxx	67
Electric energy purchased.....	Million kwh....	11	118	10	126	85	1,132	5	93
Electric energy generated and used.	....do.....	...	...	...	...	1	xxx	...	...
West South Central—Continued									
		Louisiana		Oklahoma					
		Quantity	Cost (\$1,000)	Total		Common sand and gravel subindustry		Glass sand and foundry sand subindustries	
				Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
Supplies used and products purchased for resale without further processing.....	xxx	2,577	xxx	363	xxx	259	xxx	104	
Fuels used, total.....	193	565	67	189	43	129	24	60	
Bituminous coal.....	2	8	...	...	...	...	...	...
Distillate fuel oil.....	61	276	18	83	6	34	12	49	
Residual fuel oil.....	6	25	...	...	...	...	...	...
Gas (natural and manufactured)...	7	1	36	7	34	7	2	(²)	
Other fuels.....	xxx	255	xxx	99	xxx	88	xxx	11	
Electric energy purchased.....	34	396	13	166	9	124	4	42	
Electric energy generated and used.	1	xxx	...	...	...	...	...	...
West South Central—Continued									
Texas									
		Total		Common sand and gravel subindustry		Glass sand subindustry		Foundry sand subindustry	
		Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
Supplies used and products purchased for resale without further processing.....	xxx	3,583	xxx	3,488	xxx	62	xxx	33	
Fuels used, total.....	482	1,253	470	1,202	8	32	4	19	
Bituminous coal.....	(²)	4	(²)	4	...	...	...	...
Distillate fuel oil.....	100	491	99	483	1	5	(²)	3	
Residual fuel oil.....	25	52	25	50	...	...	(²)	2	
Gas (natural and manufactured)...	339	45	335	44	...	...	4	1	
Other fuels.....	xxx	661	xxx	621	xxx	27	xxx	13	
Electric energy purchased.....	33	477	32	462	1	12	(²)	3	
Electric energy generated and used.	...	...	...	...	...	...	...	...

See footnotes at end of table.

Table 12.—MATERIALS, SUPPLIES, FUELS, AND ELECTRIC ENERGY USED IN THE SAND AND GRAVEL INDUSTRY AND SUBINDUSTRIES,
BY GEOGRAPHIC DIVISIONS: 1954—Continued

(For explanation of line captions, see INTRODUCTION)

Item	Unit of measure for quantity	Mountain							
		Total		Montana		Idaho		Wyoming	
		Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
Supplies used and products purchased for resale without further processing.....	.....	xxx	3,677	xxx	468	xxx	353	xxx	112
Fuels used, total.....	Million kwh equivalent.	392	1,251	36	121	54	199	23	84
Bituminous coal.....	1,000 short tons	...	...	...	...	...	...	...	...
Distillate fuel oil.....	1,000 barrels...	86	432	9	47	15	80	7	35
Residual fuel oil.....	...do.....	5	13	...	...	...	...	...	...
Gas (natural and manufactured)..	Million cu. ft..	13	6	13	3	...	...	(2)	3
Other fuels.....	.....	xxx	800	xxx	71	xxx	119	xxx	46
Electric energy purchased.....	Million kwh....	13	271	1	25	1	19	(2)	5
Electric energy generated and used.	....do.....	...	...	...	...	...	...	...	...
Mountain—Continued									
		Colorado		New Mexico		Arizona		Utah	
		Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
Supplies used and products purchased for resale without further processing.....	xxx	687	xxx	365	xxx	193	xxx	214	
Fuels used, total.....	104	361	49	186	14	51	28	101	
Bituminous coal.....	...	...	...	...	...	...	...	...
Distillate fuel oil.....	20	99	7	36	3	16	6	27	
Residual fuel oil.....	5	13	...	...	...	...	...	...
Gas (natural and manufactured)..	...	...	...	...	...	...	...	...
Other fuels.....	xxx	249	xxx	150	xxx	35	xxx	74	
Electric energy purchased.....	5	113	(2)	9	2	31	2	42	
Electric energy generated and used.	...	...	...	...	...	...	...	...
Mountain—Continued									
Nevada									
		Total		Common sand and gravel subindustry		Glass sand and foundry sand subindustries			
		Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)		
Supplies used and products purchased for resale without further processing.....	xxx	1,285	xxx	1,203	xxx	82			
Fuels used, total.....	44	148	33	117	11	31			
Bituminous coal.....	...	...	...	...	...	...
Distillate fuel oil.....	19	92	13	68	6	24			
Residual fuel oil.....	...	...	...	...	...	...
Gas (natural and manufactured)..	...	...	...	...	...	...
Other fuels.....	xxx	56	xxx	49	xxx	7			
Electric energy purchased.....	2	27	1	14	1	15			
Electric energy generated and used.	...	...	...	...	...	...

See footnotes at end of table.

Table 12.—MATERIALS, SUPPLIES, FUELS, AND ELECTRIC ENERGY USED IN THE SAND AND GRAVEL INDUSTRY AND SUBINDUSTRIES,
BY GEOGRAPHIC DIVISIONS: 1954—Continued

(For explanation of line captions, see INTRODUCTION)

Item	Unit of measure for quantity	Pacific					
		Total		Washington		Oregon	
		Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
Supplies used and products purchased for resale without further processing.....		xxx	13,192	xxx	2,221	xxx	2,133
Fuels used, total.....	Million kwh equivalent.	1,119	2,931	141	530	170	566
Bituminous coal.....	1,000 short tons	1	12	...	...	1	11
Distillate fuel oil.....	1,000 barrels...	191	813	28	153	36	172
Residual fuel oil.....	...do.....	16	49	...	...	3	12
Gas (natural and manufactured)..	Million cu. ft..	933	120	...	...	41	8
Other fuels.....		xxx	1,937	xxx	377	xxx	363
Electric energy purchased.....	Million kwh.....	121	1,656	14	170	11	179
Electric energy generated and used.	...do.....	2	xxx	2	xxx	...	...
Pacific—Continued							
California							
		Total		Common sand and gravel subindustry		Glass sand and foundry sand subindustries	
		Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
Supplies used and products purchased for resale without further processing.....	xxx	8,838	xxx	8,598	xxx	240	
Fuels used, total.....	808	1,835	762	1,770	46	65	
Bituminous coal.....	(²)	1	(²)	1	...	...
Distillate fuel oil.....	127	488	124	475	3	13	
Residual fuel oil.....	13	37	13	37	...	...
Gas (natural and manufactured)..	892	112	764	66	128	46	
Other fuels.....	xxx	1,197	xxx	1,191	xxx	6	
Electric energy purchased.....	96	1,307	87	1,209	9	98	
Electric energy generated and used.	...	...	...	...	...	...
Alaska and Hawaii ¹							
		Total		Alaska		Hawaii	
		Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
Supplies used and products purchased for resale without further processing.....	xxx	17	xxx	17	xxx	...	
Fuels used, total.....	10	54	10	54	...	...
Bituminous coal.....	...	...	...	...	...	...
Distillate fuel oil.....	4	44	4	44	...	...
Residual fuel oil.....	...	...	...	...	...	...
Gas (natural and manufactured)..	2	1	2	1	...	...
Other fuels.....	xxx	9	xxx	9	xxx	...	
Electric energy purchased.....	(²)	1	(²)	1	...	...
Electric energy generated and used.	...	...	...	...	...	...

xxx Not applicable.

¹Figures for Alaska and Hawaii are not included in the United States totals.²Less than one-half of the unit of measure specified.

Table 13.—WATER USE IN THE SAND AND GRAVEL INDUSTRY AND

(For explanation of column

	Subindustry, geographic division, and State	Number of production and development workers	Value added in mining (\$1,000)	Water intake (except mine water)			Water discharged (except mine water) (million gallons)
				Million gallons	Million gallons per production worker ¹	Gallons per dollar value added	
1	Sand and gravel industry, total ³	30,533	356,729	128,712	4.22	361	124,178
2	Common sand and gravel subindustry.....	28,423	334,046	122,617	4.31	367	118,206
3	Glass sand subindustry.....	1,144	13,701	5,128	4.48	374	5,080
4	Foundry sand subindustry.....	966	8,982	967	1.00	108	892
5	New England, total.....	1,189	12,318	5,815	4.89	472	5,760
6	Maine.....	66	462	90	1.36	195	90
7	New Hampshire.....	87	846	370	4.25	437	367
8	Vermont.....	78	644	162	2.08	252	160
9	Massachusetts.....	613	5,761	3,433	5.60	596	3,399
10	Rhode Island.....	75	795	264	3.52	332	254
11	Connecticut.....	270	3,810	1,496	5.54	393	1,490
12	Middle Atlantic, total.....	3,635	53,224	18,128	4.99	341	17,362
13	New York, total.....	1,434	23,542	4,622	3.22	196	4,409
14	Common sand and gravel subindustry.....	1,370	23,026	4,514	3.29	196	4,301
15	Foundry sand subindustry.....	64	516	108	1.69	209	108
16	New Jersey, total.....	852	10,829	4,043	4.75	373	3,715
17	Common sand and gravel subindustry.....	538	6,976	3,771	7.01	541	3,456
18	Glass sand subindustry.....	82	1,223	241	2.94	197	232
19	Foundry sand subindustry.....	232	2,630	31	0.13	12	27
20	Pennsylvania, total.....	1,349	18,853	9,463	7.01	502	9,238
21	Common sand and gravel subindustry.....	1,102	16,725	7,363	6.68	440	7,138
22	Glass sand and foundry sand subindustries.....	247	2,128	2,100	8.50	987	2,100
23	East North Central, total.....	6,891	83,604	32,370	4.70	387	30,563
24	Ohio, total.....	1,884	23,844	7,182	3.81	301	6,660
25	Common sand and gravel subindustry.....	1,709	22,753	6,848	4.01	301	6,326
26	Glass sand and foundry sand subindustries.....	175	1,091	334	1.91	306	334
27	Indiana, total.....	1,055	10,952	6,094	5.78	556	6,094
28	Common sand and gravel subindustry.....	1,031	10,593	6,094	5.91	575	6,094
29	Foundry sand subindustry.....	24	359	...	...	...	...
30	Illinois, total.....	1,615	20,412	8,841	5.47	433	8,627
31	Common sand and gravel subindustry.....	1,552	19,975	8,841	5.70	443	8,627
32	Foundry sand subindustry.....	63	437	...	...	...	...
33	Michigan, total.....	1,464	19,260	6,787	4.64	352	6,620
34	Common sand and gravel subindustry.....	1,364	17,086	6,007	4.40	352	5,840
35	Glass sand and foundry sand subindustries.....	100	2,174	780	7.80	359	780
36	Wisconsin, total.....	873	9,136	3,466	3.97	379	2,562
37	Common sand and gravel subindustry.....	808	8,391	3,349	4.14	399	2,445
38	Glass sand and foundry sand subindustries.....	65	745	117	1.80	157	117
39	West North Central, total.....	3,800	37,372	16,299	4.29	436	15,835
40	Minnesota.....	810	8,784	3,979	4.91	453	3,564
41	Iowa.....	584	6,539	3,803	6.51	582	3,789
42	Missouri.....	675	6,629	1,179	1.75	178	1,169
43	North Dakota and South Dakota.....	574	5,088	921	1.60	181	897
44	Nebraska.....	610	4,803	2,523	4.14	525	2,522
45	Kansas.....	547	5,529	3,894	7.12	704	3,894
46	South Atlantic, total.....	3,301	36,201	15,358	4.65	424	15,232
47	Delaware.....	43	566	305	7.07	539	293
48	Maryland.....	798	8,799	3,664	4.59	416	3,633
49	Virginia.....	569	9,341	1,930	3.39	207	1,926
50	West Virginia.....	601	7,107	3,533	5.88	497	3,533
51	North Carolina.....	420	3,606	1,846	4.40	512	1,846
52	South Carolina.....	285	2,182	2,239	7.86	1,026	2,223
53	Georgia.....	299	2,179	1,316	4.40	604	1,262
54	Florida.....	286	2,421	525	1.84	217	516
55	East South Central, total.....	1,914	14,450	8,496	4.44	588	8,169
56	Kentucky.....	323	3,312	1,964	6.08	593	1,963
57	Tennessee, total.....	706	4,731	4,294	6.08	908	3,970
58	Common sand and gravel subindustry.....	640	4,284	4,134	6.46	965	3,966
59	Foundry sand subindustry.....	66	447	160	2.42	358	4
60	Alabama.....	403	2,527	1,386	3.44	548	1,384
61	Mississippi.....	482	3,880	852	1.77	220	852

See footnotes at end of table.

SUBINDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954

captions, see INTRODUCTION)

Mine water (million gallons)		Gross water use, including recircu- lation (million gallons)	Percent of total water intake (except mine water) by principal source							
Used	Drained and dis- charged ²		Public water systems	Company surface water systems	Company ground water systems	Combined public water and company surface water systems	Combined public water and company ground water systems	Combined company surface and ground water systems	Not specified	
57,864	260	260,775	3	55	24	...	...	4	14	1
56,418	249	247,721	3	54	24	1	...	4	14	2
700	...	10,990	5	75	18	...	...	...	2	3
746	11	2,064	9	24	13	...	...	18	36	4
1,809	...	10,223	3	59	14	...	...	5	19	5
...	...	130	...	90	8	...	...	...	2	6
...	...	370	...	32	...	...	...	68	...	7
11	...	173	...	30	18	...	...	...	52	8
66	...	3,739	6	59	11	...	...	1	23	9
2	...	269	8	92	...	...	...	...	...	10
1,730	...	5,542	...	60	27	...	...	...	13	11
5,157	...	27,794	3	60	17	1	...	2	17	12
2,472	...	7,690	10	44	16	...	...	7	23	13
2,472	...	7,582	10	45	17	...	...	7	21	14
...	...	108	...	...	...	...	...	...	100	15
2,545	...	7,518	1	40	39	...	...	12	8	16
1,680	...	6,174	...	38	40	...	...	13	9	17
397	...	638	...	62	38	...	...	...	...	18
468	...	706	87	...	...	...	...	...	13	19
140	...	12,586	...	77	6	1	...	1	15	20
140	...	10,486	1	70	8	1	...	1	19	21
...	...	2,100	...	100	...	...	...	...	...	22
32,817	11	93,096	1	63	27	...	...	1	8	23
20,561	...	42,712	3	43	36	...	1	2	15	24
20,561	...	42,284	3	42	38	...	1	2	14	25
...	...	428	21	50	...	...	...	...	29	26
3,479	...	10,210	...	62	27	...	...	1	10	27
3,479	...	10,210	...	62	27	...	...	1	10	28
...	29
4,079	11	19,742	...	90	6	...	...	...	4	30
4,074	...	19,737	...	90	6	...	...	...	4	31
5	11	5	...	...	...	...	...	...	...	32
4,446	...	15,150	2	64	32	...	...	...	2	33
4,446	...	14,370	3	73	22	...	...	...	2	34
...	...	780	...	...	100	...	...	...	...	35
252	...	5,282	1	35	53	...	...	1	10	36
252	...	5,165	1	36	52	...	...	1	10	37
...	...	117	...	...	100	...	...	...	...	38
2,640	...	25,542	...	59	23	...	...	2	16	39
608	...	5,403	...	52	46	...	...	...	2	40
371	...	5,933	...	87	3	...	...	...	10	41
460	...	1,995	...	36	13	...	...	13	38	42
368	...	1,402	1	72	8	...	...	10	9	43
124	...	3,716	...	72	5	...	...	...	23	44
709	...	7,093	...	36	39	...	...	...	25	45
3,493	199	30,513	10	66	11	...	...	4	9	46
9	184	314	60	40	...	...	...	...	...	47
100	15	4,273	31	14	35	...	...	7	13	48
1,275	...	8,169	1	63	16	...	...	18	2	49
...	...	7,955	4	80	...	...	...	...	16	50
202	...	2,577	...	100	...	...	...	...	...	51
311	...	2,939	...	100	...	...	...	...	...	52
159	...	1,554	...	65	8	...	...	...	27	53
1,437	...	2,732	...	91	3	...	...	...	6	54
5,272	50	19,660	1	60	12	8	...	2	17	55
...	...	1,966	1	27	4	36	...	...	32	56
86	50	5,885	...	74	12	...	...	4	10	57
86	50	5,635	...	78	12	...	...	...	10	58
...	...	250	...	...	...	...	...	100	...	59
1,132	...	3,258	...	66	28	...	...	...	6	60
4,054	...	8,551	9	48	10	...	...	...	33	61

Table 13.—WATER USE IN THE SAND AND GRAVEL INDUSTRY AND

(For explanation of column

	Subindustry, geographic division, and State	Number of production and development workers	Value added in mining (\$1,000)	Water intake (except mine water)			Water discharged (except mine water) (million gallons)
				Million gallons	Million gallons per production worker ¹	Gallons per dollar value added	
1	West South Central, total.....	4,014	31,460	12,183	3.04	387	11,846
2	Arkansas.....	405	3,139	957	2.36	305	957
3	Louisiana.....	1,007	7,363	2,789	2.77	379	2,702
4	Oklahoma, total.....	327	2,956	1,546	4.73	523	1,542
5	Common sand and gravel subindustry.....	256	2,334	1,004	3.92	430	1,000
6	Glass and foundry sand subindustries.....	71	622	542	7.63	871	542
7	Texas, total.....	2,275	18,002	6,891	3.03	383	6,645
8	Common sand and gravel subindustry.....	2,185	17,394	6,844	3.13	393	6,603
9	Glass sand subindustry.....	57	463	...	...	...	...
10	Foundry sand subindustry.....	33	145	47	1.42	324	42
11	Mountain, total.....	1,360	16,392	2,207	1.62	135	2,125
12	Montana.....	187	1,337	205	1.10	153	205
13	Idaho.....	178	1,868	675	3.79	361	624
14	Wyoming.....	77	319	65	0.84	204	55
15	Colorado.....	390	5,028	450	1.15	89	441
16	New Mexico.....	144	3,092	84	0.58	27	84
17	Arizona.....	92	1,349	203	2.21	150	203
18	Utah.....	146	1,409	58	0.40	41	58
19	Nevada, total.....	146	1,990	467	3.20	235	455
20	Common sand and gravel subindustry.....	101	1,458	411	4.07	282	410
21	Glass sand and foundry sand subindustries.....	45	532	56	1.24	105	45
22	Pacific, total.....	4,429	71,708	17,856	4.03	249	17,286
23	Washington.....	668	8,601	2,745	4.11	319	2,745
24	Oregon.....	817	8,932	1,706	2.09	191	1,705
25	California, total.....	2,944	54,175	13,405	4.55	247	12,836
26	Common sand and gravel subindustry.....	2,844	51,890	13,212	4.65	255	12,671
27	Glass sand and foundry sand subindustries.....	100	2,285	193	2.13	90	165
28	Alaska and Hawaii ³	27	854	15	0.55	18	15

¹For computations of water intake per production worker, including mine water used, see table 3.²No mine water was reported drained and discharged by establishments in the West South Central, Mountain, and Pacific divisions, or in Alaska and Hawaii.³Figures for Alaska and Hawaii are not included in the United States total.

SUBINDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954

captions, see INTRODUCTION)

Mine water used ² (million gallons)	Gross water use, including recircu- lation (million gallons)	Percent of total water intake (except mine water) by principal source							
		Public water systems	Company surface water systems	Company ground water systems	Combined public water and company surface water systems	Combined public water and company ground water systems	Combined company surface and ground water systems	Not specified	
3,397	27,430	1	34	28	1	...	14	22	1
490	2,101	...	20	37	...	...	...	43	2
2,017	8,268	...	37	1	5	...	35	22	3
206	2,519	...	54	10	...	...	1	35	4
206	1,965	...	30	16	...	...	...	54	5
...	554	...	97	...	...	...	3	...	6
684	14,542	1	31	42	...	...	9	17	7
424	14,204	1	31	42	...	...	9	17	8
125	138	...	...	...	...	...	...	...	9
135	182	...	11	...	...	...	25	64	10
232	2,685	12	23	46	...	1	1	17	11
49	285	...	43	35	...	...	...	22	12
...	740	...	13	76	...	...	...	11	13
...	71	11	74	...	...	...	...	15	14
30	516	...	60	16	1	...	5	18	15
...	84	...	...	42	...	2	...	56	16
23	226	100	...	...	...	...	...	...	17
130	194	19	7	50	...	...	...	24	18
...	569	7	...	66	...	5	...	22	19
...	485	...	...	74	...	...	...	26	20
...	84	...	...	61	...	39	...	...	21
3,047	23,832	5	36	38	1	1	2	17	22
69	2,902	1	35	51	...	...	2	11	23
32	1,789	26	32	15	8	...	...	19	24
2,946	19,141	4	36	39	...	1	2	18	25
2,946	18,688	2	37	39	...	1	3	18	26
...	453	100	...	...	...	...	...	...	27
...	20	...	60	40	...	...	...	...	28

CLAY, CERAMIC, AND REFRACTORY MINERALS

14F-1

Clay, Ceramic, and Refractory Minerals

This report shows 1954 Census of Mineral Industries statistics for establishments classified in Industry Group 145, Clay, Ceramic, and Refractory Minerals. The separate industries included in this group are as follows:

1452—Bentonite	1456—Feldspar
1453—Fire Clay	1457—Magnesite and Brucite
1454—Fuller's Earth	1459—Clay, Ceramic, and Re-
1455—Kaolin and Ball Clay	fractory Minerals, N.E.C.

Industry 1452, Bentonite, represents establishments primarily engaged in mining, milling, or otherwise preparing bentonite. For 1954, establishments engaged in preparing bentonite which do not include a mine are classified in the manufacturing Industry 3295, Minerals: Ground or Treated. There were no such establishments in 1939.

Industry 1453, Fire Clay, represents establishments primarily engaged in mining, milling, or otherwise preparing fire clay, including stoneware clay and diaspore. However, if a mine producing fire clay as the principal product is part of an establishment manufacturing clay, refractory, or pottery products, the entire establishment is classified in manufacturing. For 1954, such operations were included in the following manufacturing industries: 3251, Brick and Hollow Tile; 3254, Sewer Pipe; 3255, Clay Refractories; 3259, Structural Clay Products, N.E.C.; and 3269, Pottery Products, N.E.C. For 1939, all such mines were classified in the fire clay industry. Nearly one-half of all the fire clay produced in 1954 was mined at such manufacturing establishments.

Industry 1454, Fuller's Earth, represents establishments primarily engaged in mining, milling, or otherwise preparing fuller's earth. The figures in this report for 1954, 1939, and 1919 represent such operations. For 1929, however, the statistics include, in addition to operations that produced fuller's earth, operations that produced artificially activated bleaching or clarifying earths, principally bentonite. The quantity of these other earths produced in 1929 was relatively small. For 1954, establishments engaged in preparing fuller's earth which do not include a mine are classified in the manufacturing Industry 3295, Minerals: Ground or Treated. Such establishments were included in the fuller's earth industry for 1939.

Industry 1455, Kaolin and Ball Clay, represents establishments primarily engaged in mining, milling, or otherwise preparing kaolin or ball clay, including china clay, paper clay, and slip clay. However, if a mine producing kaolin or ball clay as the principal product is part of an establishment manufacturing clay, refractory, or pottery, or related products, the entire establishment is classified in manufacturing. For 1954, such operations were included in the following manufacturing industries: 3241, Cement, Hydraulic; 3251, Brick and Hollow Tile; 3254, Sewer Pipe; 3255, Clay Refractories; 3259, Structural Clay Products, N.E.C.; 3264, Porcelain Electrical Supplies; and 3269, Pottery Products, N.E.C. For 1939, all such mines were classified in the kaolin and ball clay industry. In addition, for 1939 mines producing miscellaneous special clays and rotary drilling muds as the principal product were classified in this industry, whereas for 1954 establishments primarily producing special clays are generally included in the clay, ceramic, and refractory minerals, n.e.c., industry. In 1954, only 5 percent of all kaolin and ball clay produced was mined at such manufacturing establishments.

Industry 1456, Feldspar, represents establishments primarily engaged in mining, milling, or otherwise preparing feldspar. Establishments engaged in grinding feldspar which do not include a mine are classified in the manufacturing Industry 3295, Minerals: Ground or Treated. About 20 percent of all ground feldspar produced in 1954 was prepared at such establishments.

Industry 1457, Magnesite and Brucite, represents establishments primarily engaged in mining, milling, or otherwise preparing crude magnesite or brucite. Calcining activities are excluded for 1954 and 1939, but are included for 1929 and 1919 where the calcining was done at preparation plants located at mines. No such establishments were reported for 1954.

Industry 1459, Clay, Ceramic, and Refractory Minerals, N.E.C., represents establishments primarily engaged in mining, milling, or otherwise preparing ceramic or refractory minerals, not elsewhere classified, such as common clay and shale (for cement and structural clay products such as brick, hollow structural tile, architectural terra cotta, roofing tile, and sewer pipe), aplite, andalusite, dumortierite, kyanite, nepheline syenite, pinite, olivine, topaz, and zircon. (For discussion of special clays, see description of kaolin and ball clay industry.) Establishments producing common clay and shale in conjunction with the manufacture of structural clay products are classified in the manufacturing Major Group 32, Stone, Clay, and Glass Products. Mines producing such clays as the principal product which were parts of manufacturing establishments in 1954 were included in the following manufacturing industries: 3241, Cement, Hydraulic; 3251, Brick and Hollow Tile; 3253, Floor and Wall Tile, Except Quarry Tile; 3254, Sewer Pipe; 3255, Clay Refractories; 3259, Structural Clay Products, N.E.C.; and 3269, Pottery Products, N.E.C. For 1939, all such mines were classified in the common clay and shale industry. Nearly 85 percent of all common clay and shale produced in 1954 was mined at such manufacturing establishments.

Selected statistics for fire clay, kaolin and ball clay, and common clay and shale mines included in manufacturing establishments are included in tables 1, 2B, 5, and 6B of this report, but not in other tables.

The total value of shipments of the clay, ceramic, and refractory minerals industries in 1954 was \$103.8 million of which primary products of these industries amounted to \$100.3 million and secondary products and receipts for service amounted to \$3.5 million. Of the total value of shipments for this group, the bentonite industry accounted for \$21.8 million; the fire clay industry, \$22.2 million; the fuller's earth industry, \$6.0 million; the kaolin and ball clay industry, \$31.9 million; the feldspar industry, \$6.7 million; the magnesite and brucite industry, \$1.7 million; and the clay, ceramic, and refractory minerals, n.e.c., industry, \$13.5 million. These figures represent gross value of shipments and some of them contain duplication due to the inclusion of the value of minerals transferred from one establishment to other establishments in the same industry for preparation. For the group as a whole, the cost of minerals received for preparation amounted to \$1.3 million or about 1 percent of the gross value of shipments of all industries in this group. However, included in the cost of minerals received for preparation are freight and other transportation charges, where applicable. Separate figures on such charges are not available. For the fuller's earth industry and the magnesite and brucite industry, no receipts of minerals for preparation were reported. For the kaolin and ball clay industry, receipts of minerals for preparation were very small. For the fire clay industry, the cost of such minerals received amounted to \$160 thousand, less than 1 percent of the gross value of shipments. For the feldspar industry, the cost of minerals received for preparation totaled \$430 thousand or about 6 percent of the total value of shipments. The cost of minerals received for preparation in the bentonite industry and the clay, ceramic, and refractory minerals, n.e.c., industry, cannot be shown separately without approximately disclosing figures of individual companies. For the bentonite industry, these receipts were less than 3 percent of the gross value of ship-

ments and for the clay, ceramic, and refractory minerals, n.e.c., industry, receipts were less than 2 percent of the gross value of shipments.

The 1954 report form used by the Bureau of the Census for the feldspar industry also provided the information required by the Bureau of Mines for its annual statistics on feldspar. The Bureau of the Census figure on shipments of ground feldspar amounted to 440 thousand tons which differed by less than 3 percent from the total of 429 thousand tons of ground feldspar representing sales by merchant mills as reported by the Bureau of Mines. Figures on other products in this report were collected independently by the Bureau of the Census and the Bureau of Mines. There are some differences, between the figures compiled by the two bureaus on these products as shown in the table below.

As the table indicates, the figures compiled by the two bureaus on total clay differ by slightly more than 1 percent; for individual types of clay the differences range from less than 1 percent for fire clay and kaolin and ball clay to 17 percent for fuller's earth. The reasons for these differences are summarized below:

1. The Bureau of the Census collects information on shipments and calculates net shipments. Also, in part, the Bureau of the Census figures on fire clay, kaolin and ball clay, and common clay and shale represent the quantity of clay produced and consumed in the manufacture of cement, clay products, and pottery products.

2. A respondent may report different figures for the same product to the two bureaus.

3. In some cases, a respondent may report his product as one type of clay to the Bureau of the Census and as another type of clay to the Bureau of Mines.

4. The Bureau of the Census may have better coverage than the Bureau of Mines.

Direct comparison between the figures obtained by the two bureaus on aplite, olivine, kyanite, and zirconium concentrates cannot be shown; however, the differences between these figures were relatively small.

Product	Bureau of Census (net shipments, 1,000 short tons)	Bureau of Mines (sold or used, 1,000 short tons)
Clay, total.....	43,088	42,652
Bentonite.....	1,477	1,278
Fire clay.....	¹ 8,731	8,815
Fuller's earth.....	311	376
Kaolin and ball clay.....	¹ 2,219	2,201
Common clay and shale....	¹ 30,350	29,982
Magnesite and brucite,.....	337	² 284

¹Represents net shipments plus clay produced and consumed at the same establishment in the manufacture of cement, clay products, and pottery products.

²Represents prepared magnesite only.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 1.—COMPARATIVE STATISTICS FOR CLAY, CERAMIC, AND REFRACTORY MINERALS OPERATIONS IN THE UNITED STATES:
1954, 1939, 1929, 1919, 1909, 1902, 1889, 1880, 1870, AND 1860

(For explanation of line captions and for statement on the minimum size of establishments included for each year, see INTRODUCTION)

Item	Clay, ceramic, and refractory minerals operations						
	1954			1939	Mines and plants classified in the clay, ceramic, and refractory minerals industries		
	Total	Mines and plants classified in the clay, ceramic, and refractory minerals industries	Mines included in establishments classified in manufacturing industries ⁵		1929	1919	1909
Number of operating companies.....	(NA)	475	(NA)	890	(NA)	(NA)	⁶ 31
Number of establishments.....	(NA)	632	(NA)	(NA)	277	395	(NA)
Number of mines.....	1,404	673	731	1,132	326	402	404
Number of preparation plants.....	(NA)	247	(NA)	213	(NA)	64	(NA)
Net shipments of primary products ⁷.....1,000 short tons ⁸ ..	43,290	13,143	30,147	21,984	5,008	(NA)	(NA)
Value of shipments, total ⁹.....\$1,000..	104,092	103,768	324	27,364	19,544	14,827	3,601
Net primary products ⁷.....do....	104,092	{ 100,262 }	324	{ 26,375 }	19,488	14,413	{ 3,601 }
Other products and services.....do....		{ 3,506 }		{ 989 }	56	414	
Value added in mining.....do....		{ 78,449 }		{ 21,742 }	15,105	11,362	2,999
Number of persons engaged, total.....		{ 8,633 }		{ 12,558 }	6,751	7,857	4,480
Production and development workers.....	{ (NA) }	{ 7,463 }	{ (NA) }	{ 11,459 }	6,079	7,074	3,901
All other employees.....		{ 769 }		{ 842 }	590	563	304
Proprietors and firm members.....		{ 401 }		{ 257 }	82	220	275
Performing manual labor.....		{ 213 }		{ 74 }	(NA)	54	90
Man-hours worked by production and development workers, total.....1,000..	23,043	15,377	7,666	20,466			
At mines, total.....do....		{ 6,803 }		{ 14,670 }			
Underground.....do....		{ 1,305 }		{ 14,544 }	(NA)	(NA)	(NA)
Open-pit or quarry.....do....	{ 23,043 }	{ 4,706 }	7,666	{ 119,599 }			
Surface (including mine shops and yards).....do....		{ 792 }		{ 11,527 }			
At preparation plants.....do....		{ 8,574 }		{ 115,625 }			
Tons of primary products produced per man-hour ⁸	1.88	0.85	3.93	1.07	(NA)	(NA)	(NA)
Principal expenses designated below, total.....\$1,000..	(NA)	54,377	(NA)	16,952	11,478	11,373	2,525
Wages of production and development workers.....do....	34,724	22,490	12,234	9,487	5,604	6,824	1,623
Salaries of all other employees.....do....	(NA)	4,014	(NA)	1,843	1,435	1,084	300
Minerals received for preparation.....do....		1,305		(NA)	(NA)	31	...
Supplies.....do....		12,847		3,096	2,410	2,154	365
Fuel.....do....	36,860	4,651	8,987	1,293	1,162	971	180
Purchased electric energy.....do....		2,415		730	426	111	
Contract work.....do....		6,655		503	441	198	57
Purchased machinery installed.....do....		{ 6,508 }		{ (NA) }	629	(NA)	
Capital expenditures, total.....do....		{ 9,062 }		{ (NA) }	(NA)	(NA)	
Development and exploration of mineral property.....do....		{ 287 }		{ (NA) }	240	313	(NA)
Preparation plant construction.....do....		{ 1,627 }		{ 277 }			
Other construction.....do....		{ 964 }		{ 1,433 }	(NA)	(NA)	
New machinery and equipment.....do....		{ 5,709 }		{ 236 }			
Used plant and equipment.....do....		{ 475 }					
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....		360,975		156,957	49,838	28,103	11,746
Per production worker.....	{ (NA) }	{ 48 }	{ (NA) }	{ 14 }	8	4	3
Prime movers.....		248,058		104,037	30,363	21,236	11,105
Electric motors driven by purchased energy.....		112,917		52,920	19,475	6,867	641
Horsepower rating of electric motors driven by energy generated and used at same establishment.....		540		7,900	3,394	1,833	65
Energy used.....million kwh equivalent..		3,343		1,576	1,627	(NA)	
Coal.....1,000 short tons..		16		96	161	120	
Fuel oils.....1,000 barrels..		601		119	168	201	
Gas (natural and manufactured).....million cu. ft..		5,766		1,570	14	9	(NA)
Electric energy purchased.....million kwh..		193		48	26	(NA)	
Electric energy generated and used.....do....		1		9	4	(NA)	

See footnotes at end of table.

Table 1.—COMPARATIVE STATISTICS FOR CLAY, CERAMIC, AND REFRACTORY MINERALS OPERATIONS IN THE UNITED STATES:
1954, 1939, 1929, 1919, 1909, 1902, 1889, 1880, 1870, AND 1860—Continued

Item	Bentonite industry		Fire clay operations					
	1954	1939 ¹	1954			1939 ²	Mines and plants classified in the mineral industries	
			Total	Mines and plants classified in the fire clay industry	Mines included in establishments classified in manufacturing industries ⁵		1929 ³	1919 ³
Number of operating companies.....	29	27	(NA)	180	(NA)	200	(NA)	(NA)
Number of establishments.....	43	(NA)	(NA)	248	(NA)	(NA)	199	345
Number of mines.....	43	29	357	252	105	306	236	350
Number of preparation plants.....	28	20	(NA)	61	(NA)	44	(NA)	45
Net shipments of primary products ⁷.....1,000 short tons..	1,472	223	8,394	4,405	3,989	4,101	4,310	(NA)
Value of shipments, total ⁹.....\$1,000..	21,830	1,982	22,283	22,206	77	7,178	10,753	10,086
Net primary products ⁷.....do....	21,830	{ 1,895	22,283	{ 20,808	77	{ 6,796	10,716	9,712
Other products and services.....do....		87		1,398		382	37	374
Value added in mining.....do....	16,350	1,463	{ (NA)	{ 17,468	{ (NA)	{ 6,168	8,469	8,090
Number of persons engaged, total.....	657	423		2,154		4,018	4,574	6,087
Production and development workers.....	578	357	{ (NA)	{ 1,802	{ (NA)	{ 3,655	4,139	5,453
All other employees.....	56	62		185		255	363	447
Proprietors and firm members.....	23	4		167		108	72	187
Performing manual labor.....	7	1		74		41	(NA)	48
Man-hours worked by production and development workers, total.....1,000..	1,340	687	5,542	3,123	2,419	5,642	(NA)	(NA)
At mines, total.....do....	427	¹¹ 260	{ 5,542	{ 2,408	{ 2,419	¹¹ 5,229	(NA)	(NA)
Underground.....do....	4	¹¹ 56		958		¹¹ 3,278	(NA)	(NA)
Open-pit or quarry.....do....	415	¹¹ 202		1,137		¹¹ 1,774	(NA)	(NA)
Surface (including mine shops and yards).....do....	8	¹¹ 2		313		¹¹ 177	(NA)	(NA)
At preparation plants.....do....	913	¹¹ 425	{ 715	{	{	¹¹ 350	(NA)	(NA)
Tons of primary products produced per man-hour.....	1.10	0.33		1.41		0.74	(NA)	(NA)
Principal expenses designated below, total.....\$1,000..	7,653	965	(NA)	11,371	(NA)	4,875	6,883	8,205
Wages of production and development workers.....do....	1,920	309	9,783	5,670	4,113	3,366	3,758	5,367
Salaries of all other employees.....do....	215	137	928	928	(NA)	499	841	842
Minerals received for preparation.....do....	{ 2,916	{ (NA)	{ 7,519	{ 160	{ 2,746	{ (NA)	{ (NA)	{ ...
Supplies.....do....		396		1,983		622	1,494	1,417
Fuel.....do....	468	59		639		115	525	398
Purchased electric energy.....do....	305	26		305		130	245	55
Contract work.....do....	1,829	38	{ 1,686	{	{	143	20	126
Purchased machinery installed.....do....	604	(NA)		1,292		(NA)	459	(NA)
Capital expenditures, total.....do....	642	(NA)	{ (NA)	{ 1,327	{ (NA)	{ (NA)	{ (NA)	{ (NA)
Development and exploration of mineral property.....do....	15	(NA)		79		(NA)	94	265
Preparation plant construction.....do....	75	{ 15	{ (NA)	116	{ (NA)	{ 34	{ (NA)	{ (NA)
Other construction.....do....	6			68				
New machinery and equipment.....do....	392	63		925		112	{ (NA)	{ (NA)
Used plant and equipment.....do....	154	40		139		41		
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	36,354	6,958	{ 100,500	{	{	{ 31,840	31,877	21,243
Per production worker.....	63	20		56		9	8	4
Prime movers.....	20,187	4,690	{ (NA)	{ 82,097	{ (NA)	{ 19,255	20,837	16,932
Electric motors driven by purchased energy.....	16,167	2,268		18,403		12,585	11,040	4,311
Horsepower rating of electric motors driven by energy generated and used at same establishment.....	...	1,086	{ ...	{	{	{ 948	1,011	1,815
Energy used.....million kwh equivalent..	369	81		300		127	944	(NA)
Coal.....1,000 short tons..	...	1	{ (NA)	{ 3	{ (NA)	{ 12	116	84
Fuel oils.....1,000 barrels..	80	29		108		5	3	52
Gas (natural and manufactured).....million cu. ft..	626	67		31		4	10	9
Electric energy purchased.....million kwh..	26	1		17		6	14	(NA)
Electric energy generated and used.....do....	...	3	{ ...	{	{	{ ...	{ ...	{ (NA)

See footnotes at end of table.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 1.—COMPARATIVE STATISTICS FOR CLAY, CERAMIC, AND REFRACTORY MINERALS OPERATIONS IN THE UNITED STATES:
1954, 1939, 1929, 1919, 1909, 1902, 1889, 1880, 1870, AND 1860—Continued

Item	Fire clay operations—Con.				Fuller's earth industry					
	Mines and plants classified in the mineral industries—Con.		1870	1860	1954	1939	1929	1919	1909	1902
	1909 ³	1902 ³								
Number of operating companies.....	267	203	(NA)	(NA)	15	21	(NA)	(NA)	16	4
Number of establishments.....	(NA)	(NA)	1	2	16	(NA)	22	9	(NA)	(NA)
Number of mines.....	342	205	(NA)	(NA)	19	22	24	9	21	4
Number of preparation plants.....	(NA)	(NA)	(NA)	(NA)	13	18	(NA)	8	(NA)	(NA)
Net shipments of primary products ⁷.....1,000 short tons..	(NA)	1,416	(NA)	(NA)	306	187	370	(NA)	(NA)	11
Value of shipments, total ⁹.....\$1,000..	2,946	2,061	80	2	6,012	2,107	4,812	2,019	316	98
Net primary products ⁷.....do....	2,946	2,025	(NA)	(NA)	6,012	2,025	4,811	2,019	316	(NA)
Other products and services.....do....		36	(NA)	(NA)		82	1	...		(NA)
Value added in mining.....do....	2,508	1,775	77	2	4,179	1,402	3,589	1,372	232	65
Number of persons engaged, total.....	3,766	2,618	67	3	572	680	1,096	873	362	128
Production and development workers.....	3,270	102,433	67	3	510	562	991	824	327	10114
All other employees.....	238	185			54	116	105	49	32	14
Proprietors and firm members.....	258	(NA)	(NA)	(NA)	8	2	...	...	3	(NA)
Performing manual labor.....	78	(NA)	(NA)	(NA)	4	...	...	...	3	(NA)
Man-hours worked by production and development workers, total.....1,000..					1,109	1,051	(NA)	(NA)	(NA)	(NA)
At mines, total.....do....					278	11311				
Underground.....do....	(NA)	(NA)	(NA)	(NA)	...	...		
Open-pit or quarry.....do....					278	11307	(NA)	(NA)	(NA)	(NA)
Surface (including mine shops and yards).....do....					...	114				
At preparation plants.....do....					831	11729				
Tons of primary products produced per man-hour.....	(NA)	(NA)	(NA)	(NA)	0.28	0.18	(NA)	(NA)	(NA)	(NA)
Principal expenses designated below, total.....\$1,000..	2,029	1,396	43	1	3,563	1,451	2,379	1,282	241	77
Wages of production and development workers.....do....	1,365	959	40	1	1,381	438	853	541	119	34
Salaries of all other employees.....do....	226	151			363	308	303	94	38	10
Minerals received for preparation.....do....	...	(NA)	(NA)	(NA)	...	(NA)	(NA)	...	...	(NA)
Supplies.....do....	282	...	3	...	840	374	425	338	36	...
Fuel.....do....	...	...	...	...	538	164	385	294	...	...
Purchased electric energy.....do....	108	273	(NA)	(NA)	218	95	62	6	48	29
Contract work.....do....	48	13	(NA)	(NA)	223	72	351	9	...	4
Purchased machinery installed.....do....					539	(NA)	98	(NA)	(NA)	(NA)
Capital expenditures, total.....do....					525	(NA)	(NA)	(NA)		
Development and exploration of mineral property.....do....	(NA)	(NA)	(NA)	(NA)	...	(NA)	90	24	(NA)	
Preparation plant construction.....do....					71	17	(NA)	(NA)		
Other construction.....do....					13		(NA)	(NA)		
New machinery and equipment.....do....					413	61	(NA)	(NA)		
Used plant and equipment.....do....					28	7	(NA)	(NA)		
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	8,888	4,478	...		23,231	14,795	8,221	2,538	1,739	460
Per production worker.....	3	2	...		46	26	8	3	5	4
Prime movers.....	8,329	4,478	...		11,862	8,937	6,775	2,250	1,719	460
Electric motors driven by purchased energy.....	559	...	...		11,369	5,858	1,446	288	20	...
Horsepower rating of electric motors driven by energy generated and used at same establishment.....	...	...	...	(NA)	...	405	2,000	18	45	...
Energy used.....million kwh equivalent..					296	185	411	(NA)		
Coal.....1,000 short tons..					...	3	17	11		
Fuel oils.....1,000 barrels..					149	66	143	82		
Gas (natural and manufactured).....million cu. ft..	(NA)	(NA)	(NA)		84	121	4	...	(NA)	(NA)
Electric energy purchased.....million kwh..					16	8	3	(NA)		
Electric energy generated and used.....do....					...	...	4	(NA)		

See footnotes at end of table.

Table 1.—COMPARATIVE STATISTICS FOR CLAY, CERAMIC, AND REFRACTORY MINERALS OPERATIONS IN THE UNITED STATES:
1954, 1939, 1929, 1919, 1909, 1902, 1889, 1880, 1870, AND 1860—Continued

Item	Kaolin and ball clay operations						
	1954			1939 ¹	1889	1880	1860
	Total	Mines and plants classified in the kaolin and ball clay industries	Mines included in establishments classified in manufacturing industries ⁵				
Number of operating companies.....	(NA)	40	(NA)	75	(NA)	(NA)	(NA)
Number of establishments.....	(NA)	54	(NA)	(NA)	(NA)	(NA)	2
Number of mines.....	69	61	8	95	(NA)	9	(NA)
Number of preparation plants.....	(NA)	38	(NA)	53	(NA)	(NA)	(NA)
Net shipments of primary products ⁷.....1,000 short tons...	2,116	2,012	104	1,010	330	23	(NA)
Value of shipments, total ⁹.....\$1,000..	31,892	31,892	...	7,239	636	200	34
Net primary products ⁷.....do....	31,160	31,160	...	7,033	(NA)	200	34
Other products and services.....do....	732	732	...	206	(NA)	(NA)	(NA)
Value added in mining.....do....	(NA)	25,249	(NA)	5,437	(NA)	175	19
Number of persons engaged, total.....	(NA)	3,167	(NA)	3,460	(NA)	283	24
Production and development workers.....	(NA)	2,820	(NA)	3,168	(NA)	283	24
All other employees.....	(NA)	328	(NA)	266	(NA)		
Proprietors and firm members.....	(NA)	19	(NA)	26	(NA)		
Performing manual labor.....	(NA)	7	(NA)	3	(NA)		
Man-hours worked by production and development workers, total.....1,000..	6,205	6,159	46	5,987	}	(NA)	(NA)
At mines, total.....do....	6,205	1,947	46	¹¹ 2,306			
Underground.....do....		116		¹¹ 65			
Open-pit or quarry.....do....		1,404		¹¹ 2,041			
Surface (including mine shops and yards).....do....		427		¹¹ 200			
At preparation plants.....do....		4,212		¹¹ 3,652			
Tons of primary products produced per man-hour.....	0.34	0.33	2.26	0.18	(NA)	}	31
Principal expenses designated below, total.....\$1,000..	(NA)	18,276	(NA)	4,269	(NA)		
Wages of production and development workers.....do....	8,174	8,115	59	1,830	(NA)		
Salaries of all other employees.....do....	(NA)	1,828	(NA)	637	(NA)		
Minerals received for preparation.....do....	8,366	14	33	(NA)	(NA)	85	6
Supplies.....do....		4,576		896	(NA)	(NA)	(NA)
Fuel.....do....		1,524		530	(NA)	25	15
Purchased electric energy.....do....		857		241	(NA)	(NA)	(NA)
Contract work.....do....		1,362		135	(NA)	...	...
Purchased machinery installed.....do....		2,601		(NA)	}	(NA)	(NA)
Capital expenditures, total.....do....		4,291		(NA)			
Development and exploration of mineral property.....do....	(NA)	109	(NA)	(NA)			
Preparation plant construction.....do....		752		203			
Other construction.....do....		697		958			
New machinery and equipment.....do....		2,733		59			
Used plant and equipment.....do....		...					
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	(NA)	97,253	(NA)	32,777	(NA)	351	(NA)
Per production worker.....		34		10		1	
Prime movers.....		64,460		18,143		351	
Electric motors driven by purchased energy.....		32,793		14,634		...	
Horsepower rating of electric motors driven by energy generated and used at same establishment.....		...		2,463		(NA)	
Energy used.....million kwh equivalent..	(NA)	1,134	(NA)	750	(NA)	(NA)	(NA)
Coal.....1,000 short tons..		6		37			
Fuel oils.....1,000 barrels..		141		12			
Gas (natural and manufactured).....million cu. ft..		2,316		1,330			
Electric energy purchased.....million kwh..		84		20			
Electric energy generated and used.....do....		...		4			

See footnotes at end of table.

Table 1.--COMPARATIVE STATISTICS FOR CLAY, CERAMIC, AND REFRACTORY MINERALS OPERATIONS IN THE UNITED STATES:
1954, 1939, 1929, 1919, 1909, 1902, 1889, 1880, 1870, AND 1860--Continued

Item	Feldspar industry							
	1954	1939 ²	1929 ²	1919	1909 ²	1902	1889 ²	1880 ⁴
Number of operating companies.....	58	47	(NA)	(NA)	22	26	(NA)	(NA)
Number of establishments.....	84	(NA)	51	30	(NA)	(NA)	(NA)	(NA)
Number of mines.....	110	59	58	32	28	27	(NA)	14
Number of preparation plants.....	22	2	(NA)	4	(NA)	(NA)	(NA)	(NA)
Net shipments of primary products ⁷.....1,000 long tons..	692	214	205	(NA)	(NA)	40	7	22
Value of shipments, total ⁹.....\$1,000..	6,669	981	1,935	584	271	250	39	104
Net primary products ⁷.....do....	6,254	933	1,917	575	271	250	(NA)	104
Other products and services.....do....	415	48	18	9			(NA)	(NA)
Value added in mining.....do....	4,048	859	1,599	441	205	200	(NA)	91
Number of persons engaged, total.....	700	605	703	398	286	279	(NA)	119
Production and development workers.....	579	512	598	349	248	10252	(NA)	119
All other employees.....	37	54	95	29	27		(NA)	
Proprietors and firm members.....	84	39	10	20	11	(NA)	(NA)	(NA)
Performing manual labor.....	70	21	(NA)	6	7	(NA)	(NA)	(NA)
Man-hours worked by production and development workers, total.....1,000..	1,235	1,016	}	(NA)	(NA)	(NA)	(NA)	(NA)
At mines, total.....do....	600	11995						
Underground.....do....	143	1167						
Open-pit or quarry.....do....	442	11890						
Surface (including mine shops and yards).....do....	15	1138						
At preparation plants.....do....	635	115						
Tons of primary products produced per man-hour.....	0.56	0.21	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Principal expenses designated below, total.....\$1,000..	4,457	618	1,066	460	202	177	(NA)	52
Wages of production and development workers.....do....	1,523	383	527	264	107	107	(NA)	39
Salaries of all other employees.....do....	199	113	203	53	29	20	(NA)	
Minerals received for preparation.....do....	430	(NA)	(NA)	...	...	(NA)	(NA)	(NA)
Supplies.....do....	1,400	81	239	98	41	50	(NA)	13
Fuel.....do....	238	28	21	21	16		(NA)	(NA)
Purchased electric energy.....do....	302	8	62	12		9	(NA)	...
Contract work.....do....	365	5	14	12	(NA)		(NA)	
Purchased machinery installed.....do....	294	(NA)	28	(NA)	}	(NA)	(NA)	(NA)
Capital expenditures, total.....do....	408	(NA)	(NA)	(NA)			(NA)	(NA)
Development and exploration of mineral property.....do....	36	(NA)	32	13	(NA)	(NA)	(NA)	(NA)
Preparation plant construction.....do....	90	7	(NA)	(NA)			(NA)	(NA)
Other construction.....do....	4		(NA)	(NA)	}	(NA)	(NA)	(NA)
New machinery and equipment.....do....	259	37	(NA)	(NA)			(NA)	(NA)
Used plant and equipment.....do....	19	2	(NA)	(NA)	}	(NA)	(NA)	
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	29,890	5,668	6,543	1,782	993	1,204	(NA)	28
Per production worker.....	52	11	11	5	4	5	(NA)	(¹²)
Prime movers.....	18,433	5,037	2,531	1,227	933	1,204	(NA)	28
Electric motors driven by purchased energy.....	11,457	631	4,012	555	60	...	(NA)	...
Horsepower rating of electric motors driven by energy generated and used at same establishment.....	...	...	381	...	20	...	(NA)	...
Energy used.....million kwh equivalent..	102	6	25	(NA)	}	(NA)	(NA)	(NA)
Coal.....1,000 short tons..	...	...	1	3				
Fuel oils.....1,000 barrels..	39	...	2	...				
Gas (natural and manufactured).....million cu. ft..	...	...	...	...
Electric energy purchased.....million kwh..	24	...	4	(NA)				
Electric energy generated and used.....do....	...	...	...	(NA)				

See footnotes at end of table.

Table 1.--COMPARATIVE STATISTICS FOR CLAY, CERAMIC, AND REFRACTORY MINERALS OPERATIONS IN THE UNITED STATES:
1954, 1939, 1929, 1919, 1909, 1902, 1889, 1880, 1870, AND 1860--Continued

Item	Magnesite and brucite industry					
	1954	1939	1929	1919	1909 ²	1902 ²
Number of operating companies.....	4	3	(NA)	(NA)	6	1
Number of establishments.....	4	(NA)	5	11	(NA)	(NA)
Number of mines.....	4	4	5	11	13	1
Number of preparation plants.....	1	1	(NA)	7	(NA)	(NA)
Net shipments of primary products ⁷.....1,000 short tons...	337	188	98	(NA)	(NA)	3
Value of shipments, total ⁹.....\$1,000..	1,655	1,396	2,044	2,138	68	20
Net primary products ⁷.....do....	1,655	1,396	2,044	2,107	68	(NA)
Other products and services.....do....	...	...	...	31		
Value added in mining.....do....	1,372	1,289	1,448	1,459	54	(NA)
Number of persons engaged, total.....	133	228	378	499	66	(NA)
Production and development workers.....	121	216	351	448	56	(NA)
All other employees.....	11	12	27	38	7	(NA)
Proprietors and firm members.....	1	...	...	13	3	(NA)
Performing manual labor.....	1	...	...	...	2	(NA)
Man-hours worked by production and development workers, total.....1,000..	237	437	}	(NA)	(NA)	(NA)
At mines, total.....do....	176	11419				
Underground.....do....	...	11168				
Open-pit or quarry.....do....	176	11205				
Surface (including mine shops and yards).....do....	...	1146				
At preparation plants.....do....	61	1116				
Tons of primary products produced per man-hour.....	1.42	0.43				
Principal expenses designated below, total.....\$1,000..	822	431	1,150	1,426	53	(NA)
Wages of production and development workers.....do....	469	300	466	652	32	(NA)
Salaries of all other employees.....do....	70	24	88	95	7	(NA)
Minerals received for preparation.....do....	...	(NA)	(NA)	31	...	(NA)
Supplies.....do....	212	80	252	301	6	
Fuel.....do....	32	5	231	258	8	(NA)
Purchased electric energy.....do....	39	11	57	38		
Contract work.....do....	...	11	56	51	...	(NA)
Purchased machinery installed.....do....	17	(NA)	44	(NA)	}	(NA)
Capital expenditures, total.....do....	17	(NA)	(NA)	(NA)		
Development and exploration of mineral property.....do....	...	(NA)	24	11		
Preparation plant construction.....do....	...	1	(NA)	(NA)		
Other construction.....do....	...	1	(NA)	(NA)		
New machinery and equipment.....do....	17	38	(NA)	(NA)		
Used plant and equipment.....do....	...	1	(NA)	(NA)		
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	13,857	1,820	3,197	2,540	126	(NA)
Per production worker.....	115	8	9	6	3	(NA)
Prime movers.....	10,420	657	220	827	124	(NA)
Electric motors driven by purchased energy.....	3,437	1,163	2,977	1,713	2	(NA)
Horsepower rating of electric motors driven by energy generated and used at same establishment.....	...	...	...	...	...	(NA)
Energy used.....million kwh equivalent..	16	2	247	(NA)	}	(NA)
Coal.....1,000 short tons..	...	...	27	22		
Fuel oils.....1,000 barrels..	5	...	20	67		
Gas (natural and manufactured).....million cu. ft..	...	...	...	...
Electric energy purchased.....million kwh..	5	1	5	(NA)		
Electric energy generated and used.....do....	...	...	...	(NA)		

See footnotes at end of table.

Table 1.—COMPARATIVE STATISTICS FOR CLAY, CERAMIC, AND REFRACTORY MINERALS OPERATIONS IN THE UNITED STATES:
1954, 1939, 1929, 1919, 1909, 1902, 1889, 1880, 1870, AND 1860—Continued

Item	Clay, ceramic, and refractory minerals, not elsewhere classified, operations				
	1954			1939 ¹	1860
	Total	Mines and plants classified in the clay, ceramic, and refractory minerals, n.e.c., industry	Mines included in establishments classified in manufacturing industries ²		
Number of operating companies.....	(NA)	169	(NA)	524	(NA)
Number of establishments.....	(NA)	183	(NA)	(NA)	5
Number of mines.....	802	184	618	617	(NA)
Number of preparation plants.....	(NA)	84	(NA)	75	(NA)
Net shipments of primary products ⁷.....1,000 short tons..	29,890	3,836	26,054	16,035	(NA)
Value of shipments, total ⁹.....\$1,000..	13,751	13,504	247	6,481	106
Net primary products ⁷.....do....	13,751	13,504	247	6,297	(NA)
Other products and services.....do....			...	184	(NA)
Value added in mining.....do....	(NA)	9,783	(NA)	5,124	82
Number of persons engaged, total.....	(NA)	1,250	(NA)	3,144	68
Production and development workers.....	(NA)	1,053	(NA)	2,989	68
All other employees.....	(NA)	98	(NA)	77	(NA)
Proprietors and firm members.....	(NA)	99	(NA)	78	(NA)
Performing manual labor.....	(NA)	50	(NA)	8	(NA)
Man-hours worked by production and development workers, total.....1,000..	7,375	2,174	5,201	5,646	(NA)
At mines, total.....do....	7,375	967	5,201	115,150	(NA)
Underground.....do....		84		11910	(NA)
Open-pit or quarry.....do....		854		114,180	(NA)
Surface (including mine shops and yards).....do....		29		1160	(NA)
At preparation plants.....do....		1,207		11448	(NA)
Tons of primary products produced per man-hour.....	4.05	1.76	5.01	2.84	(NA)
Principal expenses designated below, total.....\$1,000..	(NA)	8,235	(NA)	4,343	48
Wages of production and development workers.....do....	11,474	3,412	8,062	2,861	24
Salaries of all other employees.....do....	(NA)	411	(NA)	125	(NA)
Minerals received for preparation.....do....	10,620	1,621	6,208	(NA)	(NA)
Supplies.....do....				647	
Fuel.....do....		1,212		392	24
Purchased electric energy.....do....		389		219	(NA)
Contract work.....do....		1,190		99	(NA)
Purchased machinery installed.....do....		1,161			(NA)
Capital expenditures, total.....do....		1,852		(NA)	(NA)
Development and exploration of mineral property.....do....	(NA)	48	(NA)		(NA)
Preparation plant construction.....do....		523			(NA)
Other construction.....do....		176		41	(NA)
New machinery and equipment.....do....		970		164	(NA)
Used plant and equipment.....do....		135		86	(NA)
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	(NA)	59,890	(NA)	63,099	(NA)
Per production worker.....		57		21	(NA)
Prime movers.....		40,599		47,318	(NA)
Electric motors driven by purchased energy.....		19,291		15,781	(NA)
Horsepower rating of electric motors driven by energy generated and used at same establishment.....		540		3,000	(NA)
Energy used.....million kwh equivalent..	(NA)	1,126	(NA)	425	
Coal.....1,000 short tons..		7		43	
Fuel oils.....1,000 barrels..		79		7	
Gas (natural and manufactured).....million cu. ft..		2,709		48	(NA)
Electric energy purchased.....million kwh..		21		12	
Electric energy generated and used.....do....		1		2	

D Withheld to avoid approximately disclosing figures of individual companies. NA Not available. ¹For 1939, establishments primarily producing rotary drilling muds were classified in the Kaolin and ball clay industry. For 1954, all clays were classified by type rather than by use and establishments primarily producing rotary drilling muds in that year were probably classified in the Bentonite industry or the Clay, ceramic, and refractory minerals, n.e.c., industry. For Census years prior to 1939, according to the Bureau of Mines, there was no production of bentonite. ²Excludes nonproducing operations as follows: for 1939, fire clay, 2 mines; feldspar, 1 mine and 1 plant. For 1929, feldspar, 3 establishments. For 1909, feldspar, 1 establishment, magnesite, 1 establishment. For 1902, 7 magnesite mines. ³Represents combined figures for the Fire clay industry, the Kaolin and ball clay industry, and the Clay, ceramic, and refractory minerals, n.e.c., industry. Figures for 1929, 1919, 1909, and 1902 were reported as establishments engaged in the production of clay (china, paper, ball, slip, fire, and other) whose product was sold as clay, either crude or beneficiated. No separate figures are available for those years for the Fire clay industry, the Kaolin and ball clay industry, or the Clay, ceramic, and refractory minerals, n.e.c., industry. For 1929, excludes data for 3 nonproducing establishments. ⁴Represents combined figures for feldspar and quartz operations. Separate figures are not available for feldspar operations. ⁵See text for list of manufacturing industries represented. ⁶Represents the sum of the figures shown for the separate industries and probably includes some duplication due to the same company operating in more than one industry. ⁷Represents net shipments (gross shipments less minerals received for preparation) of the product indicated by the name of the industry. The quantity figure for mines included in manufacturing establishments includes clay produced and used in the same establishment. ⁸Figures in long tons for feldspar have been converted to short tons for the combined figures for all Clay, ceramic, and refractory minerals industries. ⁹For 1939 and earlier years, figures represent production. ¹⁰Figures for average employment were reduced to a 300-day basis for establishments which operated for a shorter period. ¹¹Excludes man-hours worked on inactive days. Such man-hours were not distributed by department. ¹²Less than 0.5.

Table 2A.—COMPARATIVE STATISTICS FOR THE BENTONITE, FULLER'S EARTH, AND FELDSPAR INDUSTRIES BY STATES: 1954, 1939, 1929, AND 1919

(For explanation of column captions, see INTRODUCTION)

Industry, geographic division, State, and year	Number of mines	Value of shipments (\$1,000)	Number of employees		Designated principal expenses (\$1,000)						Aggregate horse- power rating of power equipment
			Produc- tion and develop- ment workers	All other employees	Wages of produc- tion and develop- ment workers	Salaries of all other employees	Supplies and minerals received for prepa- ration ¹	Fuel	Pur- chased electric energy	Con- tract work	
BENTONITE INDUSTRY											
United States, total											
1954.....	43	21,830	578	56	1,920	215	2916	468	305	1,829	36,354
1939 ³	29	1,982	357	² 62	309	² 137	396	59	26	38	6,958
East South Central (Alabama and Mississippi)											
1954 ⁴	7	3,047	139	7	388	22	381	86	30	252	6,148
1939.....	5	248	70	9	46	24	28	9	3	6	948
Texas											
1954.....	7	1,866	80	10	218	39	362	28	31	262	2,913
1939.....	4	171	80	15	42	30	37	8	1	2	1,187
Wyoming											
1954.....	11	12,943	185	25	655	107	1,040	220	159	1,191	12,812
1939.....	6	883	74	5	84	12	168	24	2	16	2,030
Other States ⁵											
1954.....	18	3,974	174	14	659	47	1,133	134	85	124	14,481
1939.....	14	680	133	12	137	26	163	18	20	14	2,793
FULLER'S EARTH INDUSTRY											
United States, total											
1954.....	19	6,012	510	54	1,381	363	840	538	218	223	23,231
1939.....	22	2,107	562	116	438	308	374	164	95	72	14,795
1929.....	24	4,812	991	105	853	303	425	385	62	351	8,221
Texas											
1954.....	4	138	10	1	30	2	19	4	...	...	313
1939.....	10	723	175	28	150	92	147	28	21	9	2,582
1929.....	5	260	51	10	59	22	37	13	...	1	809
Other States ⁶											
1954.....	15	5,874	500	53	1,351	361	821	534	218	223	22,918
1939.....	12	1,384	387	88	288	216	227	136	74	63	12,213
1929.....	19	4,552	940	95	794	281	388	372	62	350	7,412
FELDSPAR INDUSTRY											
United States, total											
1954.....	110	6,669	579	37	1,523	199	1,830	238	302	365	29,890
1939 ⁷	59	981	512	54	383	113	81	28	8	5	5,668
1929 ⁷	58	1,935	598	95	527	203	239	21	62	14	6,543
1919.....	32	584	349	29	264	53	98	21	12	12	1,782
South Dakota											
1954.....	27	800	72	2	218	8	167	20	35	97	6,460
1939.....	11	95	43	4	41	8	7	3	1	1	503
1929.....	3	35	8	2	9	2	1	1	...	...	300
North Carolina											
1954.....	37	3,536	279	8	637	49	1,105	172	157	49	8,351
1939.....	17	292	192	14	98	12	40	4	4	4	1,574
1929.....	17	952	305	34	194	75	78	8	35	1	2,948
1919.....	11	114	164	10	79	8	8	3	...	5	230
Other States ⁸											
1954.....	46	2,333	228	27	668	142	558	46	110	219	15,079
1939.....	31	594	277	36	244	93	34	21	3	...	3,591
1929.....	38	948	285	59	324	126	160	12	27	13	3,295
1919.....	21	470	185	19	185	45	90	18	12	7	1,552

¹For 1939 and 1929, excludes the cost of minerals received for preparation. ²Includes figures for central office employees in Ohio and Illinois where no bentonite mines were located. ³See table 1, footnote 1. ⁴Mississippi only, no mines were reported in Alabama. ⁵For both years, includes South Dakota, Oklahoma, Arizona, Nevada, and California. For 1954, also includes Louisiana and Colorado. For 1939, also includes Utah. ⁶For all years represents Georgia, Florida, and California. For 1954, also includes Tennessee, Mississippi, and Utah. For 1939, also includes Illinois, Tennessee, Louisiana, and Nevada, and central office employees in Pennsylvania. For 1929, also includes Massachusetts, Illinois, Colorado, Arizona, Utah, and Nevada. ⁷See table 1, footnote 2. ⁸For all years, represents Maine, Connecticut, and California. For 1954, also includes New Hampshire, Virginia, Georgia, Texas, Colorado, and Arizona. For 1939, also includes New Hampshire, New York, Virginia, Colorado, Arizona, and Wyoming. For 1929, also includes New Hampshire, New York, Minnesota, Maryland, and Virginia. For 1919, also includes New York, Maryland, and Georgia.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 2B.—COMPARATIVE STATISTICS FOR FIRE CLAY; KAOLIN AND BALL CLAY; AND CLAY, CERAMIC, AND REFRACTORY MINERALS, NOT ELSEWHERE
CLASSIFIED, OPERATIONS, FOR GEOGRAPHIC DIVISIONS AND SELECTED STATES: 1954 AND 1939

(For explanation of column captions, see INTRODUCTION. For 1939, excludes nonproducing operations)

Industry, geographic division, State, and year	Number of mines	Clay production ¹ (1,000 short tons)		Shipments and interplant transfers		Man-hours worked by production and development workers (1,000)	Principal expenses designated below (\$1,000)	
		Total	Produced and consumed in the same establishment in the manufacture of cement or clay, ceramic, and refractory products	Clay ¹ (1,000 short tons)	Value f.o.b. mine or plant ² (\$1,000)		Wages of production and development workers	Cost of supplies, minerals received for preparation, fuel, purchased electric energy, and contract work ³
FIRE CLAY INDUSTRY								
United States:								
1954, total.....	357	8,394	3,957	4,437	22,283	5,542	9,783	7,519
Fire clay industry.....	252	4,405	...	4,405	22,206	3,123	5,670	4,773
Mines included in manufactures.....	105	3,989	3,957	32	77	2,419	4,113	2,746
1939.....	306	4,101	(NA)	(NA)	7,178	5,642	3,366	1,010
Middle Atlantic:								
1954, total.....	91	1,672	811	861	6,128	1,740	3,180	1,488
Fire clay industry.....	66	861	...	861	6,128	1,117	2,065	922
Mines included in manufactures.....	25	811	811	...	...	623	1,115	566
1939.....	95	1,186	(NA)	(NA)	2,850	2,114	1,421	347
New Jersey:								
1954.....	10	(D)	(D)	46	692	4221	4336	4174
1939.....	19	120	(NA)	(NA)	736	451	242	90
Pennsylvania:								
1954, total.....	80	1,535	720	815	5,436	1,496	2,811	1,290
Fire clay industry.....	58	815	...	815	5,436	896	1,729	748
Mines included in manufactures.....	22	720	720	...	...	600	1,082	542
1939.....	76	1,066	(NA)	(NA)	2,114	1,663	1,179	257
North Central:								
1954, total.....	155	4,355	1,873	2,482	11,797	2,247	4,010	4,229
Fire clay industry.....	103	2,463	...	2,463	11,735	1,287	2,294	2,896
Mines included in manufactures.....	52	1,892	1,873	19	62	960	1,716	1,333
1939 ⁵	135	1,901	(NA)	(NA)	2,570	1,946	1,042	467
Ohio:								
1954, total.....	76	2,442	1,005	1,437	7,565	1,485	2,735	2,266
Fire clay industry.....	38	1,418	...	1,418	7,503	747	1,416	1,481
Mines included in manufactures.....	38	1,024	1,005	19	62	738	1,319	785
1939.....	46	917	(NA)	(NA)	1,176	846	515	236
Indiana:								
1954, total.....	15	348	92	256	947	140	283	407
Fire clay industry.....	10	256	...	256	947	100	207	269
Mines included in manufactures.....	5	92	92	...	...	40	76	138
1939.....	9	93	(NA)	(NA)	119	107	58	12
Illinois:								
1954.....	6	268	(D)	(D)	(D)	77	127	173
1939.....	8	203	(NA)	(NA)	309	176	103	57
Missouri:								
1954, total.....	51	1,080	375	705	3,021	483	749	1,255
Fire clay industry.....	49	705	...	705	3,021	399	603	1,084
Mines included in manufactures.....	2	375	375	...	...	84	146	171
1939.....	68	712	(NA)	(NA)	966	817	366	161
South:								
1954, total.....	54	1,516	1,074	442	2,564	1,167	1,923	1,204
Fire clay industry.....	33	442	...	442	2,564	483	875	456
Mines included in manufactures.....	21	1,074	1,074	...	...	684	1,048	748
1939.....	34	748	(NA)	(NA)	1,242	1,264	716	122
Maryland:								
1954.....	5	99	(D)	(D)	(D)	83	138	59
1939.....	6	72	(NA)	(NA)	173	204	97	25
West Virginia:								
1954.....	5	258	(D)	(D)	(D)	173	360	163
1939.....	7	266	(NA)	(NA)	412	248	169	37
Kentucky:								
1954.....	16	(D)	(D)	183	1,105	4303	4591	4145
1939.....	14	305	(NA)	(NA)	548	701	411	54

See footnotes at end of table.

Table 2B.—COMPARATIVE STATISTICS FOR FIRE CLAY; KAOLIN AND BALL CLAY; AND CLAY, CERAMIC, AND REFRACTORY MINERALS, NOT ELSEWHERE CLASSIFIED, OPERATIONS, FOR GEOGRAPHIC DIVISIONS AND SELECTED STATES: 1954 AND 1939—Continued

(For explanation of column captions, see INTRODUCTION. For 1939, excludes nonproducing operations)

Industry, geographic division, State, and year	Number of mines	Clay production ¹ (1,000 short tons)		Shipments and interplant transfers		Man-hours worked by production and development workers (1,000)	Principal expenses designated below (\$1,000)	
		Total	Produced and consumed in the same establishment in the manufacture of cement or clay, ceramic, and refractory products	Clay ¹ (1,000 short tons)	Value f.o.b. mine or plant ² (\$1,000)		Wages of production and development workers	Cost of supplies, minerals received for preparation, fuel, purchased electric energy, and contract work ³
FIRE CLAY INDUSTRY—Continued								
South—Continued								
Alabama:								
1954.....	8	(D)	(D)	158	884	4106	4182	4179
1939.....	4	65	(NA)	(NA)	64	80	26	5
Texas:								
1954.....	14	332	301	31	199	191	237	180
1939.....	3	40	(NA)	(NA)	45	31	13	1
West:								
1954, total.....	57	851	199	652	1,798	388	670	598
Fire clay industry.....	50	639	...	639	1,779	236	436	499
Mines included in manufactures.....	7	212	199	13	19	152	234	99
1939 ⁵	42	266	(NA)	(NA)	516	318	187	74
Colorado:								
1954, total.....	19	263	92	171	571	195	302	190
Fire clay industry.....	16	171	...	171	571	125	202	140
Mines included in manufactures.....	3	92	92	...	...	70	100	50
1939.....	10	57	(NA)	(NA)	70	68	32	14
Washington (1954).....	8	107	(D)	(D)	(D)	30	62	178
California:								
1954.....	17	420	(D)	(D)	(D)	143	274	170
1939.....	21	145	(NA)	(NA)	334	160	104	46
KAOLIN AND BALL CLAY INDUSTRY								
United States:								
1954, total.....	69	2,116	104	2,012	31,892	6,205	8,174	8,366
Kaolin and ball clay industry.....	61	2,012	...	2,012	31,892	6,159	8,115	8,333
Mines included in manufactures.....	8	104	104	...	...	46	59	33
1939.....	95	1,010	(NA)	(NA)	7,239	5,987	1,830	1,802
East and South:								
1954.....	58	(D)	(D)	1,897	29,925	65,982	67,740	67,992
1939.....	75	991	(NA)	(NA)	6,777	5,785	1,706	1,730
South Carolina:								
1954.....	12	(D)	(D)	220	4,104	6758	6916	61,087
1939.....	12	135	(NA)	(NA)	1,093	719	232	296
Georgia:								
1954.....	19	(D)	(D)	1,279	20,021	64,075	65,523	65,220
1939.....	21	515	(NA)	(NA)	3,697	3,799	1,032	1,050
Kentucky:								
1954.....	4	95	...	95	1,363	190	265	305
1939.....	4	66	(NA)	(NA)	598	249	96	74
Tennessee:								
1954.....	10	(D)	(D)	183	2,458	381	446	654
1939.....	8	47	(NA)	(NA)	424	224	83	41
West:								
1954.....	11	(D)	(D)	115	1,967	6177	6375	6341
1939.....	20	19	(NA)	(NA)	462	202	124	72
CLAY, CERAMIC, AND REFRACTORY MINERALS, N.E.C., INDUSTRY								
United States:								
1954, total.....	802	29,890	25,803	4,087	13,751	7,375	11,474	10,620
Clay, ceramic, and refractory minerals, n.e.c., industry.....	184	3,836	...	3,836	13,504	2,174	3,412	4,412
Mines included in manufactures.....	618	26,054	25,803	251	247	5,201	8,062	6,208
1939.....	617	16,031	(NA)	(NA)	6,481	5,646	2,861	1,357

See footnotes at end of table.

Table 2B.—COMPARATIVE STATISTICS FOR FIRE CLAY; KAOLIN AND BALL CLAY; AND CLAY, CERAMIC, AND REFRACTORY MINERALS, NOT ELSEWHERE CLASSIFIED, OPERATIONS, FOR GEOGRAPHIC DIVISIONS AND SELECTED STATES: 1954 AND 1939—Continued

(For explanation of column captions, see INTRODUCTION. For 1939, excludes nonproducing operations)

Industry, geographic division, State, and year	Number of mines	Clay production ¹ (1,000 short tons)		Shipments and interplant transfers		Man-hours worked by production and development workers (1,000)	Principal expenses designated below (\$1,000)	
		Total	Produced and consumed in the same establishment in the manufacture of cement or clay, ceramic, and refractory products	Clay ¹ (1,000 short tons)	Value f.o.b. mine or plant ² (\$1,000)		Wages of production and development workers	Cost of supplies, minerals received for preparation, fuel, purchased electric energy, and contract work ³
CLAY, CERAMIC, AND REFRACTORY MINERALS, N.E.C., INDUSTRY—Continued								
Northeast:								
1954, total.....	134	4,040	3,408	632	2,166	1,122	2,056	1,459
Clay, ceramic, and refractory minerals, n.e.c., industry.....	30	569	...	569	2,106	316	541	638
Mines included in manufactures.....	104	3,421	3,408	63	60	806	1,515	821
1939 ⁷	128	3,584	(NA)	(NA)	1,321	890	546	259
New York:								
1954.....	30	1,172	965	207	205	254	483	179
1939.....	34	1,504	(NA)	(NA)	420	254	173	86
New Jersey:								
1954, total.....	18	616	438	178	825	211	394	468
Clay, ceramic, and refractory minerals, n.e.c., industry.....	7	178	...	178	825	102	181	238
Mines included in manufactures.....	11	438	438	...	...	109	213	230
1939.....	12	480	(NA)	(NA)	202	102	59	64
Pennsylvania:								
1954, total.....	64	1,859	1,695	164	871	513	959	745
Clay, ceramic, and refractory minerals, n.e.c., industry.....	13	164	...	164	871	107	184	333
Mines included in manufactures.....	51	1,695	1,695	...	...	406	775	412
1939.....	59	1,167	(NA)	(NA)	560	439	260	92
East North Central:								
1954, total.....	175	7,514	6,831	683	1,333	1,369	2,527	2,118
Clay, ceramic, and refractory minerals, n.e.c., industry.....	29	514	...	514	1,163	169	290	410
Mines included in manufactures.....	146	7,000	6,831	169	170	1,200	2,237	1,708
1939.....	159	4,428	(NA)	(NA)	2,137	1,809	1,110	462
Ohio:								
1954, total.....	82	2,696	2,481	215	232	577	1,110	707
Clay, ceramic, and refractory minerals, n.e.c., industry.....	9	215	...	215	232	37	66	26
Mines included in manufactures.....	73	2,481	2,481	...	...	540	1,044	681
1939.....	88	2,267	(NA)	(NA)	1,368	1,098	724	285
Indiana:								
1954, total.....	31	1,048	1,003	45	229	234	361	405
Clay, ceramic, and refractory minerals, n.e.c., industry.....	8	45	...	45	229	43	54	45
Mines included in manufactures.....	23	1,003	1,003	...	...	191	307	360
1939.....	19	422	(NA)	(NA)	154	147	77	33
Illinois:								
1954.....	39	1,854	(D)	(D)	(D)	298	547	499
1939.....	36	1,063	(NA)	(NA)	380	317	182	88
Michigan:								
1954.....	15	1,766	1,503	263	592	241	480	490
1939.....	12	580	(NA)	(NA)	201	214	105	49
Wisconsin:								
1954.....	8	150	(D)	(D)	(D)	19	29	17
1939.....	4	96	(NA)	(NA)	34	33	22	7
West North Central:								
1954, total.....	76	2,709	2,297	412	1,636	710	1,156	1,222
Clay, ceramic, and refractory minerals, n.e.c., industry.....	14	412	...	412	1,636	254	443	518
Mines included in manufactures.....	62	2,297	2,297	...	...	456	713	704
1939 ⁸	60	1,359	(NA)	(NA)	632	561	265	121
Iowa:								
1954, total.....	26	873	814	59	124	177	275	286
Clay, ceramic, and refractory minerals, n.e.c., industry.....	4	59	...	59	124	25	39	35
Mines included in manufactures.....	22	814	814	...	...	152	236	251
1939.....	20	588	(NA)	(NA)	271	253	123	52

See footnotes at end of table.

Table 2B.—COMPARATIVE STATISTICS FOR FIRE CLAY; KAOLIN AND BALL CLAY; AND CLAY, CERAMIC, AND REFRACTORY MINERALS, NOT ELSEWHERE CLASSIFIED, OPERATIONS, FOR GEOGRAPHIC DIVISIONS AND SELECTED STATES: 1954 AND 1939—Continued

(For explanation of column captions, see INTRODUCTION. For 1939, excludes nonproducing operations)

Industry, geographic division, State, and year	Number of mines	Clay production ¹ (1,000 short tons)		Shipments and interplant transfers		Man-hours worked by production and development workers (1,000)	Principal expenses designated below (\$1,000)	
		Total	Produced and consumed in the same establishment in the manufacture of cement or clay, ceramic, and refractory products	Clay ¹ (1,000 short tons)	Value f.o.b. mine or plant ² (\$1,000)		Wages of production and development workers	Cost of supplies, minerals received for preparation, fuel, purchased electric energy, and contract work ³
CLAY, CERAMIC, AND REFRACTORY MINERALS, N.E.C., INDUSTRY—Continued								
West North Central—Continued								
Missouri:								
1954, total.....	19	815	674	141	763	214	407	337
Clay, ceramic, and refractory minerals, n.e.c., industry.....	4	141	...	141	763	107	217	169
Mines included in manufactures.....	15	674	674	...	...	107	190	168
1939.....	17	345	(NA)	(NA)	123	107	47	19
Nebraska:								
1954.....	8	183	(D)	(D)	(D)	39	58	26
1939.....	8	122	(NA)	(NA)	57	55	22	12
Kansas:								
1954.....	15	683	(D)	(D)	(D)	180	283	383
1939.....	8	151	(NA)	(NA)	68	49	26	21
South Atlantic:								
1954, total.....	109	5,567	4,970	597	3,298	1,530	1,812	1,722
Clay, ceramic, and refractory minerals, n.e.c., industry.....	20	590	...	590	3,293	610	728	751
Mines included in manufactures.....	89	4,977	4,970	7	5	920	1,084	971
1939 ⁷	94	2,978	(NA)	(NA)	1,025	1,121	413	230
Maryland and District of Columbia:								
1954.....	11	585	(D)	(D)	(D)	56	103	49
1939.....	13	395	(NA)	(NA)	168	124	57	32
Virginia:								
1954, total.....	19	805	695	110	1,318	340	481	555
Clay, ceramic, and refractory minerals, n.e.c., industry.....	4	110	...	110	1,318	223	293	424
Mines included in manufactures.....	15	695	695	...	...	117	188	131
1939 ⁹	17	593	(NA)	(NA)	160	155	60	30
West Virginia:								
1954.....	9	355	(D)	(D)	(D)	167	178	236
1939.....	10	228	(NA)	(NA)	107	114	51	12
North Carolina:								
1954, total.....	33	1,618	1,402	216	655	423	444	445
Clay, ceramic, and refractory minerals, n.e.c., industry.....	7	216	...	216	655	129	154	141
Mines included in manufactures.....	26	1,402	1,402	...	...	294	290	304
1939 ⁹	23	698	(NA)	(NA)	184	195	66	43
South Carolina:								
1954.....	15	805	(D)	(D)	(D)	261	264	170
1939.....	12	354	(NA)	(NA)	75	103	30	22
Georgia:								
1954.....	16	1,189	(D)	(D)	(D)	248	285	194
1939 ⁹	11	616	(NA)	(NA)	168	233	70	51
East South Central:								
1954, total.....	68	2,515	2,150	365	841	573	791	686
Clay, ceramic, and refractory minerals, n.e.c., industry.....	13	365	...	365	841	200	300	268
Mines included in manufactures.....	55	2,150	2,150	...	...	373	491	418
1939.....	46	1,329	(NA)	(NA)	362	417	146	84
Kentucky:								
1954, total.....	13	264	126	138	449	128	209	211
Clay, ceramic, and refractory minerals, n.e.c., industry.....	3	138	...	138	449	88	158	154
Mines included in manufactures.....	10	126	126	...	...	40	51	57
1939.....	9	177	(NA)	(NA)	61	92	29	11
Tennessee:								
1954.....	17	778	(D)	(D)	(D)	147	209	94
1939.....	16	507	(NA)	(NA)	137	130	51	32
Alabama:								
1954.....	28	1,215	(D)	(D)	(D)	237	313	303
1939.....	15	460	(NA)	(NA)	130	151	51	32

See footnotes at end of table.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 2B.—COMPARATIVE STATISTICS FOR FIRE CLAY; KAOLIN AND BALL CLAY; AND CLAY, CERAMIC, AND REFRACTORY MINERALS, NOT ELSEWHERE CLASSIFIED, OPERATIONS, FOR GEOGRAPHIC DIVISIONS AND SELECTED STATES: 1954 AND 1939—Continued

(For explanation of column captions, see INTRODUCTION. For 1939, excludes nonproducing operations)

Industry, geographic division, State, and year	Number of mines	Clay production ¹ (1,000 short tons)		Shipments and interplant transfers		Man-hours worked by production and development workers (1,000)	Principal expenses designated below (\$1,000)	
		Total	Produced and consumed in the same establishment in the manufacture of cement or clay, ceramic, and refractory products	Clay ¹ (1,000 short tons)	Value f.o.b. mine or plant ² (\$1,000)		Wages of production and development workers	Cost of supplies, minerals received for preparation, fuel, purchased electric energy, and contract work ³
CLAY, CERAMIC, AND REFRACTORY MINERALS, N.E.C., INDUSTRY—Continued								
East South Central—Continued								
Mississippi:								
1954.....	10	258	258	...	...	61	60	78
1939.....	6	185	(NA)	(NA)	34	44	15	9
West South Central:								
1954, total.....	89	3,558	2,974	584	2,284	1,304	1,654	1,674
Clay, ceramic, and refractory minerals, n.e.c., industry.....	16	584	...	584	2,284	337	463	832
Mines included in manufactures.....	73	2,974	2,974	...	...	967	1,191	842
1939.....	57	1,392	(NA)	(NA)	448	398	153	114
Arkansas:								
1954.....	8	163	(D)	(D)	(D)	103	124	70
1939.....	10	240	(NA)	(NA)	80	63	24	17
Louisiana:								
1954, total.....	18	880	626	254	1,171	362	456	564
Clay, ceramic, and refractory minerals, n.e.c., industry.....	4	254	...	254	1,171	160	218	441
Mines included in manufactures.....	14	626	626	...	...	202	238	123
1939.....	6	180	(NA)	(NA)	44	39	13	11
Oklahoma:								
1954.....	13	442	(D)	(D)	(D)	198	257	204
1939.....	9	257	(NA)	(NA)	68	57	24	14
Texas:								
1954.....	50	2,073	(D)	(D)	(D)	641	817	836
1939.....	32	715	(NA)	(NA)	256	239	92	72
Mountain:								
1954, total.....	55	1,263	991	272	537	188	360	458
Clay, ceramic, and refractory minerals, n.e.c., industry.....	27	272	...	272	537	60	148	192
Mines included in manufactures.....	28	991	991	...	...	128	212	266
1939 ⁸ 9.....	29	238	(NA)	(NA)	194	186	89	32
Colorado:								
1954.....	23	777	(D)	(D)	(D)	103	226	147
1939.....	13	106	(NA)	(NA)	104	84	41	22
Arizona:								
1954.....	4	94	94	...	...	13	20	12
1939 ¹⁰	2	39	(NA)	(NA)	12	10	5	4
Utah:								
1954.....	10	(D)	(D)	65	203	¹¹ 11	¹¹ 14	¹¹ 118
1939.....	4	29	(NA)	(NA)	35	32	20	4
Pacific:								
1954, total.....	96	2,725	2,183	542	1,656	579	1,118	1,281
Clay, ceramic, and refractory minerals, n.e.c., industry.....	35	530	...	530	1,644	228	499	803
Mines included in manufactures.....	61	2,195	2,183	12	12	351	619	478
1939 ⁹	44	723	(NA)	(NA)	362	264	139	55
Washington:								
1954.....	22	200	(D)	(D)	(D)	52	92	112
1939.....	10	96	(NA)	(NA)	50	39	27	6
Oregon:								
1954.....	17	281	(D)	(D)	(D)	77	160	121
1939.....	4	31	(NA)	(NA)	20	5	4	4
California:								
1954, total.....	57	2,256	1,866	390	1,193	450	866	1,048
Clay, ceramic, and refractory minerals, n.e.c., industry.....	22	390	...	390	1,193	165	380	677
Mines included in manufactures.....	35	1,866	1,866	...	...	285	486	371
1939 ⁹	30	596	(NA)	(NA)	292	220	108	45

D Withheld to avoid approximately disclosing figures for individual companies. NA Not available. ¹Represents only products primary to the specified operations: for fire clay operations, represents fire clay; for kaolin and ball clay operations, represents kaolin and ball clay; and for clay, ceramic, and refractory minerals, n.e.c., operations, represents common clay and shale. For 1954, the figures shown for total production represent gross shipments and interplant transfers plus production used in the same establishment in the manufacture of clay, ceramic, and refractory products. ²Represents value of all products and services. Figures for 1939 represent value of production. ³Figures for 1939 exclude the cost of minerals received for preparation. ⁴Represents the fire clay industry only. ⁵Except for number of mines, figures for one mine and plant in

Michigan and one mine and plant in North Dakota are included with figures for the West. ⁶Represents the kaolin and ball clay industry only.

⁷Except for number of mines, figures for one mine in Delaware are included with figures for Northeast. ⁸Except for number of mines, figures for one mine in South Dakota are included with figures for Mountain. ⁹Except for number of mines, figures for kyanite, andalusite, and dumortierite mines and plants are excluded from the statistics for individual States and are all included in the statistics for South Atlantic. Such operations were distributed as follows: Virginia, 1 mine and 1 plant; North Carolina, 1 mine and 1 plant; Georgia, 2 mines and 2 plants; Nevada, 2 mines; and California, 2 mines and 1 plant. ¹⁰Except for number of mines, includes data for one mine in Nevada. ¹¹Represents the clay, ceramic, and refractory minerals, n.e.c., industry only.

Table 3.—DETAILED STATISTICS FOR THE CLAY, CERAMIC, AND REFRACTORY MINERALS INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954
(For explanation of line captions, see INTRODUCTION)

Item	Bentonite industry					
	United States, total	West North Central and South Central ¹			West ²	
		Total	Mississippi	Texas	Total	Wyoming
Number of operating companies.....	29	13	5	5	20	9
Number of establishments.....	43	19	7	7	24	11
Number of mines.....	43	19	7	7	24	11
Number of preparation plants.....	28	11	4	4	17	9
Net shipments of primary products ²⁴.....1,000 short tons..	1,472	554	293	164	918	773
Value of shipments, total.....\$1,000..	21,830	8,108	3,047	1,866	13,722	12,943
Net primary products ²⁴.....do....	21,830	8,108	3,047	1,866	13,722	12,943
Other products and services.....do....						...
Value added in mining.....do....	16,350	5,357	2,281	1,175	10,993	10,389
Number of persons engaged, total.....	657	354	146	92	303	217
Production and development workers.....	578	323	139	80	255	185
All other employees.....	56	27	7	10	29	25
Proprietors and firm members.....	23	4	...	2	19	7
Performing manual labor.....	7	1	...	...	6	...
Man-hours worked by production and development workers, total...1,000..	1,340	756	306	188	584	424
At mines, total.....do....	427	234	157	19	193	56
Underground.....do....	4	...	...	...	4	...
Open-pit.....do....	415	234	157	19	181	50
Surface (including mine shops and yards).....do....	8	...	...	...	8	6
At preparation plants.....do....	913	522	149	169	391	368
Man-hours spent on development and exploration work (included above).....do....	16	...	...	...	16	15
Tons of primary products per man-hour ²⁵	1.10	0.73	0.96	0.87	1.57	1.82
Principal expenses designated below, total.....\$1,000..	7,653	3,833	1,159	940	3,820	3,372
Wages of production and development workers.....do....	1,920	1,007	388	218	913	655
Salaries of all other employees.....do....	215	99	22	39	116	107
Minerals received for preparation.....do....	2,916	1,824	...	...	...	...
Supplies ²⁷.....do....			381	362	1,092	1,040
Fuel.....do....	468	212	86	28	256	220
Purchased electric energy.....do....	305	144	30	31	161	159
Contract work.....do....	1,829	547	252	262	1,282	1,191
Purchased machinery installed.....do....	604	(D)	98	105	(D)	234
Capital expenditures, total.....do....	642	(D)	81	97	(D)	290
Development and exploration of mineral property.....do....	15	(D)	...	...	(D)	(D)
Preparation plant construction.....do....	75	(D)	(D)	(D)	(D)	(D)
Other construction.....do....	6	(D)	...	...	(D)	(D)
New machinery and equipment.....do....	392	(D)	(D)	(D)	(D)	(D)
Used plant and equipment.....do....	154	(D)	(D)	(D)	(D)	(D)
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	36,354	17,799	6,148	2,913	18,555	12,812
Per production worker.....	63	55	44	36	73	69
Prime movers.....	20,187	9,597	3,190	1,887	10,590	6,704
Electric motors driven by purchased energy.....	16,167	8,202	2,958	1,026	7,965	6,108
Horsepower rating of electric motors driven by energy generated at the establishment.....	...	...	...	...	...	...
Energy used.....million kwh equivalent..	369	191	71	21	178	169
Coal.....1,000 short tons..	...	...	...	...	...	...
Fuel oils.....1,000 barrels..	80	12	9	...	68	63
Gas (natural and manufactured).....million cu. ft..	626	497	172	46	129	129
Electric energy purchased.....million kwh..	26	12	2	2	14	14
Electric energy generated and used.....do....	...	...	...	...	...	...
Water intake, including mine water used.....million gallons..	12	11	10	1	1	1
Per production worker.....do....	0.02	0.03	0.07	0.01	(²⁹)	0.01

See footnotes at end of table.

Table 3.—DETAILED STATISTICS FOR THE CLAY, CERAMIC, AND REFRACTORY MINERALS INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

(For explanation of line captions, see INTRODUCTION)

Item	Fire clay industry							
	United States, total	Middle Atlantic			North Central ³			
		Total	New Jersey	Pennsylvania	Total	Ohio	Indiana	Missouri
Number of operating companies.....	180	45	8	37	83	28	8	45
Number of establishments.....	248	66	8	58	102	38	9	49
Number of mines.....	252	66	8	58	103	38	10	49
Number of preparation plants.....	61	20	5	15	25	16	1	5
Net shipments of primary products ²⁴.....1,000 short tons..	4,405	861	46	815	2,463	1,418	256	705
Value of shipments, total.....\$1,000..	22,206	6,128	692	5,436	11,735	7,503	947	3,021
Net primary products ²⁴.....do....	20,808	5,717	425	5,292	10,989	7,190	724	2,815
Other products and services.....do....	1,398	411	267	144	746	313	223	206
Value added in mining.....do....	17,468	5,165	501	4,664	8,880	6,103	675	1,893
Number of persons engaged, total.....	2,154	752	117	635	831	443	56	299
Production and development workers.....	1,802	651	97	554	681	389	47	219
All other employees.....	185	70	18	52	67	41	3	22
Proprietors and firm members.....	167	31	2	29	83	13	6	58
Performing manual labor.....	74	10	...	10	41	6	4	31
Man-hours worked by production and development workers, total...1,000..	3,123	1,117	221	896	1,287	747	100	399
At mines, total.....do....	2,408	917	148	769	841	426	77	317
Underground.....do....	958	469	...	469	87	80	7	...
Open-pit.....do....	1,137	280	70	210	665	270	70	310
Surface (including mine shops and yards).....do....	313	168	78	90	89	76	...	7
At preparation plants.....do....	715	200	73	127	446	321	23	82
Man-hours spent on development and exploration work (included above).....do....	513	50	...	50	456	7	...	449
Tons of primary products per man-hour ²⁵	1.41	0.76	0.21	0.90	1.92	1.90	2.56	1.77
Principal expenses designated below, total.....\$1,000..	11,371	3,292	572	2,720	5,569	3,167	483	1,788
Wages of production and development workers.....do....	5,670	2,065	336	1,729	2,294	1,416	207	603
Salaries of all other employees.....do....	928	305	62	243	379	270	7	101
Minerals received for preparation.....do....	27160	472	73	399	1,209	758	{ ... 85 }	354
Supplies ²⁷.....do....	1,983							
Fuel.....do....	639	117	43	74	438	124	25	277
Purchased electric energy.....do....	305	100	17	83	165	116	9	40
Contract work.....do....	1,686	233	41	192	1,084	483	150	413
Purchased machinery installed.....do....	1,292	208	34	174	712	313	165	219
Capital expenditures, total.....do....	1,327	167	17	150	753	394	162	175
Development and exploration of mineral property.....do....	79	4	...	4	41	2	...	32
Preparation plant construction.....do....	116	10	6	4	79	79	...	...
Other construction.....do....	68	39	6	33	6	5	1	...
New machinery and equipment.....do....	925	107	5	102	518	308	74	125
Used plant and equipment.....do....	139	7	...	7	109	...	87	18
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	100,500	24,609	4,699	19,910	52,838	25,843	3,889	21,163
Per production worker.....	56	38	48	36	78	66	83	97
Prime movers.....	82,097	18,545	3,335	15,210	43,647	17,750	3,618	20,336
Electric motors driven by purchased energy.....	18,403	6,064	1,364	4,700	9,191	8,093	271	827
Horsepower rating of electric motors driven by energy generated at the establishment.....	...	...	...	...	...	...	...	...
Energy used.....million kwh equivalent..	300	53	22	31	215	58	8	146
Coal.....1,000 short tons..	3	2	1	1	1	1	...	...
Fuel oils.....1,000 barrels..	108	10	6	4	93	19	3	71
Gas (natural and manufactured).....million cu. ft..	31	2	...	2	1	...	...	1
Electric energy purchased.....million kwh..	17	4	1	3	11	8	...	3
Electric energy generated and used.....do....	...	...	...	...	...	...	...	...
Water intake, including mine water used.....million gallons..	157	76	70	6	67	51	...	16
Per production worker.....do....	0.09	0.12	0.72	0.01	0.10	0.13	...	0.07

See footnotes at end of table.

Table 3.—DETAILED STATISTICS FOR THE CLAY, CERAMIC, AND REFRACTORY MINERALS INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

(For explanation of line captions, see INTRODUCTION)

Item	Fire clay industry—Continued					
	South ⁴			Mountain ⁵		Pacific ⁶
	Total	Kentucky	Alabama	Total	Colorado	
Number of operating companies.....	25	10	7	24	15	11
Number of establishments.....	33	14	7	25	16	22
Number of mines.....	33	14	7	25	16	25
Number of preparation plants.....	6	...	3	5	3	5
Net shipments of primary products ²⁴.....1,000 short tons..	442	183	158	230	171	409
Value of shipments, total.....\$1,000..	2,564	1,105	884	749	571	1,030
Net primary products ²⁴.....do....	2,441	1,105	884	749	571	1,030
Other products and services.....do....	123	...				
Value added in mining.....do....	2,110	969	707	549	433	764
Number of persons engaged, total.....	397	270	72	96	81	78
Production and development workers.....	339	238	61	76	66	55
All other employees.....	33	22	5	4	4	11
Proprietors and firm members.....	25	10	6	16	11	12
Performing manual labor.....	10	5	1	9	4	4
Man-hours worked by production and development workers, total...1,000..	483	303	106	138	125	98
At mines, total.....do....	438	303	80	122	115	90
Underground.....do....	287	243	44	98	97	17
Open-pit.....do....	112	33	24	17	11	63
Surface (including mine shops and yards).....do....	39	27	12	7	7	10
At preparation plants.....do....	45	...	26	16	10	8
Man-hours spent on development and exploration work (included above).....do....	5	5	...	...	...	2
Tons of primary products per man-hour ²⁵	0.92	0.60	1.49	1.67	1.37	4.17
Principal expenses designated below, total.....\$1,000..	1,486	843	387	428	355	596
Wages of production and development workers.....do....	875	591	182	219	202	217
Salaries of all other employees.....do....	155	107	26	13	13	76
Minerals received for preparation.....do....	...	...	...	...	...	...
Supplies ²⁷.....do....	27320	126	27152	30	30	112
Fuel.....do....	42	12	7	19	14	23
Purchased electric energy.....do....	28	5	13	7	6	5
Contract work.....do....	66	2	7	140	90	163
Purchased machinery installed.....do....	94	43	18	54	47	224
Capital expenditures, total.....do....	96	52	20	50	49	261
Development and exploration of mineral property.....do....	7	7	...	1	...	26
Preparation plant construction.....do....	22	...	6	...	...	5
Other construction.....do....	4	4	...	9	9	10
New machinery and equipment.....do....	59	41	10	29	29	212
Used plant and equipment.....do....	4	...	4	11	11	8
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	11,814	3,862	3,044	2,786	1,738	8,453
Per production worker.....	35	16	50	37	26	154
Prime movers.....	9,333	3,244	1,916	2,573	1,525	7,999
Electric motors driven by purchased energy.....	2,481	618	1,128	213	213	454
Horsepower rating of electric motors driven by energy generated at the establishment.....	...	...	...	...	...	...
Energy used.....million kwh equivalent..	15	5	2	11	9	6
Coal.....1,000 short tons..	...	...	...	...	...	...
Fuel oils.....1,000 barrels..	4	2	...	...	...	1
Gas (natural and manufactured).....million cu. ft..	...	...	...	26	24	2
Electric energy purchased.....million kwh..	2	...	1	...	...	...
Electric energy generated and used.....do....	...	...	...	...	...	...
Water intake, including mine water used.....million gallons..	5	...	5	9	9	...
Per production worker.....do....	0.01	...	0.08	0.12	0.14	...

See footnotes at end of table.

Table 3.—DETAILED STATISTICS FOR THE CLAY, CERAMIC, AND REFRACTORY MINERALS INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued
(For explanation of line captions, see INTRODUCTION)

Item	Fuller's earth industry			
	United States, total	South Atlantic ⁷	South Central and West ⁸	
			Total	Texas
Number of operating companies.....	15	5	10	4
Number of establishments.....	16	6	10	4
Number of mines.....	19	9	10	4
Number of preparation plants.....	13	5	8	4
Net shipments of primary products ²⁴.....1,000 short tons..	306	258	48	6
Value of shipments, total.....\$1,000..	6,012	5,362	650	138
Net primary products ²⁴.....do....	6,012	5,362	650	138
Other products and services.....do....				
Value added in mining.....do....	4,179	3,679	500	115
Number of persons engaged, total.....	572	495	77	13
Production and development workers.....	510	447	63	10
All other employees.....	54	48	6	1
Proprietors and firm members.....	8	...	8	2
Performing manual labor.....	4	...	4	...
Man-hours worked by production and development workers, total..1,000..	1,109	981	128	17
At mines, total.....do....	278	249	29	5
Underground.....do....	...	...	...	...
Open-pit.....do....	278	249	29	5
Surface (including mine shops and yards).....do....	...	...	...	...
At preparation plants.....do....	831	732	99	12
Man-hours spent on development and exploration work (included above).....do....	42	42	...	...
Tons of primary products per man-hour ²⁵	0.28	0.26	0.38	0.35
Principal expenses designated below, total.....\$1,000..	3,563	3,210	353	55
Wages of production and development workers.....do....	1,381	1,212	169	30
Salaries of all other employees.....do....	363	340	23	2
Minerals received for preparation.....do....	...	...	...	...
Supplies ²⁷.....do....	840	761	79	19
Fuel.....do....	538	495	43	4
Purchased electric energy.....do....	218	203	15	...
Contract work.....do....	223	199	24	...
Purchased machinery installed.....do....	539	386	153	...
Capital expenditures, total.....do....	525	361	164	...
Development and exploration of mineral property.....do....	...	...	...	...
Preparation plant construction.....do....	71	37	34	...
Other construction.....do....	13	11	2	...
New machinery and equipment.....do....	413	312	101	...
Used plant and equipment.....do....	28	1	27	...
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	23,231	20,607	2,624	313
Per production worker.....	46	46	42	31
Prime movers.....	11,862	9,708	2,154	313
Electric motors driven by purchased energy.....	11,369	10,899	470	...
Horsepower rating of electric motors driven by energy generated at the establishment.....	...	...	...	...
Energy used.....million kwh equivalent..	296	279	17	6
Coal.....1,000 short tons..	...	...	...	...
Fuel oils.....1,000 barrels..	149	142	7	1
Gas (natural and manufactured).....million cu. ft..	84	70	14	14
Electric energy purchased.....million kwh..	16	15	1	...
Electric energy generated and used.....do....	...	...	...	...
Water intake, including mine water used.....million gallons..	51	30	21	...
Per production worker.....do....	0.10	0.07	0.33	...

See footnotes at end of table.

Table 3.—DETAILED STATISTICS FOR THE CLAY, CERAMIC, AND REFRACTORY MINERALS INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued
(For explanation of line captions, see INTRODUCTION)

Item	Kaolin and ball clay industry							
	United States, total	Middle Atlantic and South Atlantic ⁹			South Central ¹⁰			West ¹¹
		Total	South Carolina	Georgia	Total	Kentucky	Tennessee	
Number of operating companies.....	40	22	6	16	9	4	5	9
Number of establishments.....	54	29	6	17	16	4	8	9
Number of mines.....	61	35	11	18	17	4	9	9
Number of preparation plants.....	38	25	6	14	11	3	5	2
Net shipments of primary products ²⁴.....1,000 short tons..	2,012	1,570	220	1,279	327	95	183	115
Value of shipments, total.....\$1,000..	31,892	25,517	4,104	20,021	4,408	1,363	2,458	1,967
Net primary products ²⁴.....do....	31,160	25,517	{ 4,104 ... }	{ 20,021 ... }	4,408	1,363	2,458	1,967
Other products and services.....do....	732							
Value added in mining.....do....	25,249	20,355	3,009	16,486	3,268	1,078	1,783	1,626
Number of persons engaged, total.....	3,167	2,731	416	2,060	325	86	201	111
Production and development workers.....	2,820	2,436	366	1,828	289	80	178	95
All other employees.....	328	285	47	229	32	3	23	11
Proprietors and firm members.....	19	10	3	3	4	3	...	5
Performing manual labor.....	7	3	3	...	2	1	...	2
Man-hours worked by production and development workers, total...1,000..	6,159	5,351	758	4,075	631	190	381	177
At mines, total.....do....	1,947	1,323	201	1,032	465	160	276	159
Underground.....do....	116	3	...	3	...	...	...	113
Open-pit.....do....	1,404	1,091	199	802	280	70	181	33
Surface (including mine shops and yards).....do....	427	229	2	227	185	90	95	13
At preparation plants.....do....	4,212	4,028	557	3,043	166	30	105	18
Man-hours spent on development and exploration work (included above).....do....	140	91	1	91	48	...	48	1
Tons of primary products per man-hour ²⁵	0.33	0.29	0.29	0.31	0.52	0.50	0.48	0.65
Principal expenses designated below, total.....\$1,000..	18,276	15,375	2,247	12,044	2,141	594	1,234	760
Wages of production and development workers.....do....	8,115	6,943	916	5,523	797	265	445	375
Salaries of all other employees.....do....	1,828	1,581	244	1,301	203	24	135	44
Minerals received for preparation.....do....	14	...	...	...	578	141	{ ... 411 }	...
Supplies ²⁷.....do....	4,576	3,848	704	2,947				
Fuel.....do....	1,524	1,302	257	944	213	59	110	9
Purchased electric energy.....do....	857	797	111	608	52	11	32	8
Contract work.....do....	1,362	904	15	721	298	94	101	160
Purchased machinery installed.....do....	2,601	2,446	159	2,202	149	41	89	6
Capital expenditures, total.....do....	4,291	4,135	151	3,887	150	61	68	6
Development and exploration of mineral property.....do....	109	57	4	51	52	7	43	...
Preparation plant construction.....do....	752	737	7	720	15	10	5	...
Other construction.....do....	697	694	6	688	3	3	...	...
New machinery.....do....	2,733	2,647	134	2,428	80	41	20	6
Used plant and equipment.....do....	...	...	...	...	...	...	...	...
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	97,253	81,429	20,078	55,356	14,177	4,563	8,265	1,647
Per production worker.....	34	33	55	30	49	57	46	17
Prime movers.....	64,460	51,299	14,484	33,125	11,520	3,605	6,857	1,641
Electric motors driven by purchased energy.....	32,793	30,130	5,594	22,231	2,657	958	1,408	6
Horsepower rating of electric motors driven by energy generated at the establishment.....	...	...	...	...	...	...	...	...
Energy used.....million kwh equivalent..	1,134	1,014	148	798	118	24	43	2
Coal.....1,000 short tons..	6	6	...	2	...	...	...	...
Fuel oils.....1,000 barrels..	141	106	32	56	35	12	20	...
Gas (natural and manufactured).....million cu. ft..	2,316	2,166	223	1,943	150	...	...	...
Electric energy purchased.....million kwh..	84	79	10	63	5	1	4	...
Electric energy generated and used.....do....	...	...	...	...	...	...	...	...
Water intake, including mine water used.....million gallons..	3,890	3,844	7	2,683	43	...	43	3
Per production worker.....do....	1.38	1.58	0.02	1.47	0.15	...	0.24	0.02

See footnotes at end of table.

Table 3.—DETAILED STATISTICS FOR THE CLAY, CERAMIC, AND REFRACTORY MINERALS INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

(For explanation of line captions, see INTRODUCTION)

Item	Feldspar industry						Magnesite and brucite industry (United States) ¹⁵
	United States, total ¹⁵	New England, total ¹²	West North Central (South Dakota)	South ¹³		West ¹⁴	
				Total	North Carolina		
Number of operating companies.....	58	12	13	19	15	18	4
Number of establishments.....	84	14	14	34	28	22	4
Number of mines.....	110	16	27	43	37	24	4
Number of preparation plants.....	22	8	3	8	6	3	1
Net shipments of primary products ²⁴.....1,000 short tons ²⁵ ..	692	54	42	542	524	54	337
Value of shipments, total.....\$1,000..	6,669	1,207	800	3,867	3,536	795	1,655
Net primary products ²⁴.....do....	6,254	1,207	800	3,867	3,536	795	{ 1,655
Other products and services.....do....	415						
Value added in mining.....do....	4,048	858	502	2,206	2,079	482	1,372
Number of persons engaged, total.....	700	166	98	370	312	66	133
Production and development workers.....	579	139	72	330	279	38	121
All other employees.....	37	17	2	11	8	7	11
Proprietors and firm members.....	84	10	24	29	25	21	1
Performing manual labor.....	70	10	23	18	15	19	1
Man-hours worked by production and development workers, total...1,000..	1,235	312	180	652	542	91	237
At mines, total.....do....	600	201	101	247	200	51	176
Underground.....do....	143	87	...	56	56	...	...
Open-pit.....do....	442	105	101	190	143	46	176
Surface (including mine shops and yards).....do....	15	9	...	1	1	5	...
At preparation plants.....do....	635	111	79	405	342	40	61
Man-hours spent on development and exploration work (included above).....do....	32	1	...	31	4	...	...
Tons of primary products per man-hour ²⁵	0.56	0.17	0.23	0.83	0.97	(²⁶)	1.42
Principal expenses designated below, total.....\$1,000..	4,457	880	545	2,546	2,169	486	822
Wages of production and development workers.....do....	1,523	419	218	754	637	132	469
Salaries of all other employees.....do....	199	87	8	64	49	40	70
Minerals received for preparation.....do....	430	173	167	1,272	1,105	218	{ ...
Supplies ²⁷.....do....	1,400						
Fuel.....do....	238	21	20	182	172	15	32
Purchased electric energy.....do....	302	74	35	176	157	17	39
Contract work.....do....	365	106	97	98	49	64	...
Purchased machinery installed.....do....	294	32	30	207	82	25	17
Capital expenditures, total.....do....	408	57	51	274	108	26	17
Development and exploration of mineral property.....do....	36	7	3	25	25	1	...
Preparation plant construction.....do....	90	...	4	86	42	...	...
Other construction.....do....	4	1	...	3	3	...	...
New machinery and equipment.....do....	259	47	42	160	38	10	17
Used plant and equipment.....do....	19	2	2	...	...	15	...
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	29,890	8,008	6,460	10,440	8,351	4,982	13,857
Per production worker.....	52	58	90	32	30	(²⁶)	115
Prime movers.....	18,433	5,385	5,000	4,253	3,233	3,795	10,420
Electric motors driven by purchased energy.....	11,457	2,623	1,460	6,187	5,118	1,187	3,437
Horsepower rating of electric motors driven by energy generated at the establishment.....do....	...	...	...	...	...	...	...
Energy used.....million kwh equivalent..	102	11	11	76	72	4	16
Coal.....1,000 short tons..	...	...	...	...	...	...	...
Fuel oils.....1,000 barrels..	39	2	4	33	32	...	5
Gas (natural and manufactured).....million cu. ft..	...	...	...	...	...	...	...
Electric energy purchased.....million kwh..	24	5	3	15	14	1	5
Electric energy generated and used.....do....	...	...	...	...	...	...	...
Water intake, including mine water used.....million gallons..	1,224	...	...	1,224	1,224	...	1,152
Per production worker.....do....	2.11	...	...	3.71	4.39	...	9.52

See footnotes at end of table.

Table 3.—DETAILED STATISTICS FOR THE CLAY, CERAMIC, AND REFRACTORY MINERALS INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued
(For explanation of line captions, see INTRODUCTION)

Item	Clay, ceramic, and refractory minerals, n.e.c., industry							
	United States, total	Northeast ¹⁶			East North Central ¹⁷			West North Central ¹⁸
		Total	New Jersey	Pennsylvania	Total	Ohio	Indiana	Total
Number of operating companies.....	169	28	5	13	27	9	8	14
Number of establishments.....	183	30	7	13	29	9	8	14
Number of mines.....	184	30	7	13	29	9	8	14
Number of preparation plants.....	84	17	4	8	12	2	6	6
Net shipments of primary products ²⁴.....1,000 short tons..	3,836	569	178	164	514	215	45	412
Value of shipments, total.....\$1,000..	13,504	2,106	825	871	1,163	232	229	1,636
Net primary products ²⁴.....do....	13,504	2,106	825	871	1,163	232	{ 229	1,636
Other products and services.....do....							{ ... }	
Value added in mining.....do....	9,783	1,480	586	554	753	203	182	1,135
Number of persons engaged, total.....	1,250	189	59	72	116	25	37	125
Production and development workers.....	1,053	154	52	49	87	19	23	106
All other employees.....	98	22	6	11	...	...	...	10
Proprietors and firm members.....	99	13	1	12	29	6	14	9
Performing manual labor.....	50	7	1	6	14	5	8	1
Man-hours worked by production and development workers, total...1,000..	2,174	316	102	107	169	37	43	254
At mines, total.....do....	967	132	43	50	84	33	16	101
Underground.....do....	84	7	...	7	...	...	...	...
Open-pit.....do....	854	112	37	36	78	33	13	101
Surface (including mine shops and yards).....do....	29	13	6	7	6	...	3	...
At preparation plants.....do....	1,207	184	59	57	85	4	27	153
Man-hours spent on development and exploration work (included above).....do....	31	3	...	3	2	2	...	10
Tons of primary products per man-hour ²⁵	1.76	1.80	1.75	1.53	3.04	5.81	(²⁶)	1.62
Principal expenses designated below, total.....\$1,000..	8,235	1,263	435	556	700	92	99	1,006
Wages of production and development workers.....do....	3,412	541	181	184	290	66	54	443
Salaries of all other employees.....do....	411	84	16	39	...	...	...	45
Minerals received for preparation.....do....	1,621	392	168	203	{ ...	{ ...	{ ...	{ ...
Supplies ²⁷.....do....					{ 123	{ 5	{ 23	{ 125
Fuel.....do....	1,212	99	20	43	166	9	11	238
Purchased electric energy.....do....	389	66	34	23	68	4	8	38
Contract work.....do....	1,190	81	16	64	53	8	3	117
Purchased machinery installed.....do....	1,161	26	1	8	125	30	40	103
Capital expenditures, total.....do....	1,852	38	...	24	125	27	38	120
Development and exploration of mineral property.....do....	48	2	...	2	7	2	...	3
Preparation plant construction.....do....	523	...	...	...	...	...	...	23
Other construction.....do....	176	6	...	...	1	1	...	1
New machinery and equipment.....do....	970	15	...	7	87	24	8	87
Used plant and equipment.....do....	135	15	...	15	30	...	30	6
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	59,890	11,087	1,428	6,081	7,782	2,029	1,922	5,517
Per production worker.....	57	72	27	124	89	107	(²⁶)	52
Prime movers.....	40,599	7,540	930	4,882	4,901	1,899	1,117	3,659
Electric motors driven by purchased energy.....	19,291	3,547	498	1,199	2,881	130	805	1,858
Horsepower rating of electric motors driven by energy generated at the establishment.....	540	...	...	...	...	...	...	...
Energy used.....million kwh equivalent..	1,126	34	7	18	57	2	2	280
Coal.....1,000 short tons..	7	...	...	...	1	...	...	...
Fuel oils.....1,000 barrels..	79	10	...	9	9	1	...	10
Gas (natural and manufactured).....million cu. ft..	2,709	...	...	...	2	...	2	844
Electric energy purchased.....million kwh..	21	3	2	1	3	...	...	1
Electric energy generated and used.....do....	1	...	...	...	...	...	...	...
Water intake, including mine water used.....million gallons..	267	5	3	1	30	4	8	20
Per production worker.....do....	0.25	0.03	0.06	0.02	0.34	0.21	(²⁶)	0.19

See footnotes at end of table.

Table 3.—DETAILED STATISTICS FOR THE CLAY, CERAMIC, AND REFRACTORY MINERALS INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

(For explanation of line captions, see INTRODUCTION)

Item	Clay, ceramic, and refractory minerals, n.e.c., industry—Continued						
	West North Central, ¹⁸ —Continued		South Atlantic ¹⁹			East South Central ²⁰	
	Iowa	Missouri	Total	Virginia	North Carolina	Total	Kentucky
Number of operating companies.....	4	4	19	4	7	13	3
Number of establishments.....	4	4	19	4	7	13	3
Number of mines.....	4	4	20	4	7	13	3
Number of preparation plants.....	2	1	11	3	2	5	1
Net shipments of primary products ²⁴.....1,000 short tons..	59	141	590	110	216	365	138
Value of shipments, total.....\$1,000..	124	763	3,293	1,318	655	841	449
Net primary products ²⁴.....do....	124	763	3,293	1,318	655	841	449
Other products and services.....do....	...						
Value added in mining.....do....	77	588	2,538	887	513	577	300
Number of persons engaged, total.....	13	54	330	116	62	118	48
Production and development workers.....	11	48	291	100	55	101	40
All other employees.....	...	2	34	15	4	12	8
Proprietors and firm members.....	2	4	5	1	3	5	...
Performing manual labor.....	1	...	2	1	1	2	...
Man-hours worked by production and development workers, total...1,000..	25	107	610	223	129	200	88
At mines, total.....do....	20	46	240	48	92	145	68
Underground.....do....	...	...	...	...	...	74	30
Open-pit.....do....	20	46	240	48	92	65	32
Surface (including mine shops and yards).....do....	...	...	...	...	...	6	6
At preparation plants.....do....	5	61	370	175	37	55	20
Man-hours spent on development and exploration work (included above).....do....	...	...	...	...	...	...	...
Tons of primary products per man-hour ²⁵	2.36	1.32	0.97	0.49	1.67	1.83	1.57
Principal expenses designated below, total.....\$1,000..	74	401	1,641	799	310	604	338
Wages of production and development workers.....do....	39	217	728	293	154	300	158
Salaries of all other employees.....do....	...	15	162	82	15	36	26
Minerals received for preparation.....do....	...	...	...	...	...	...	...
Supplies ²⁷.....do....	28 ²⁵	28 ⁴⁰	457	28 ²⁷⁴	105	96	28 ⁸⁸
Fuel.....do....	9	121	163	74	30	59	49
Purchased electric energy.....do....	1	8	119	76	5	23	17
Contract work.....do....	(²⁸)	(²⁸)	12	(²⁸)	1	90	(²⁸)
Purchased machinery installed.....do....	23	71	130	88	5	25	6
Capital expenditures, total.....do....	11	65	126	81	4	29	11
Development and exploration of mineral property.....do....	...	...	...	...	...	...	...
Preparation plant construction.....do....	...	...	10	6	...	5	5
Other construction.....do....	...	...	...	...	...	...	...
New machinery and equipment.....do....	11	65	109	75	4	23	6
Used plant and equipment.....do....	...	...	7	...	...	1	...
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	1,258	1,618	15,380	5,304	3,034	3,079	1,135
Per production worker.....	114	34	53	53	55	30	28
Prime movers.....	1,199	1,018	10,845	2,565	2,814	1,558	224
Electric motors driven by purchased energy.....	59	600	4,535	2,739	220	1,521	911
Horsepower rating of electric motors driven by energy generated at the establishment.....	...	...	540	...	540	...	...
Energy used.....million kwh equivalent..	2	131	66	31	9	55	51
Coal.....1,000 short tons..	...	...	...	...	...	6	6
Fuel oils.....1,000 barrels..	...	7	26	14	4	1	...
Gas (natural and manufactured).....million cu. ft..	...	382	25	...	...	...	...
Electric energy purchased.....million kwh..	...	...	8	5	...	1	1
Electric energy generated and used.....do....	...	...	1	...	1	...	...
Water intake, including mine water used.....million gallons..	...	10	165	46	102	20	20
Per production worker.....do....	...	0.21	0.57	0.46	1.85	0.20	0.50

See footnotes at end of table.

Table 3.—DETAILED STATISTICS FOR THE CLAY, CERAMIC, AND REFRACTORY MINERALS INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

(For explanation of line captions, see INTRODUCTION)

Item	Clay, ceramic, and refractory minerals, n.e.c., industry—Continued					
	West South Central ²¹		Mountain		Pacific ²³	
	Total	Louisiana	Total	Utah	Total	California
Number of operating companies.....	14	4	23	6	29	19
Number of establishments.....	16	4	27	8	35	22
Number of mines.....	16	4	27	8	35	22
Number of preparation plants.....	10	4	6	1	17	10
Net shipments of primary products ²⁴.....1,000 short tons..	584	254	272	65	530	390
Value of shipments, total.....\$1,000..	2,284	1,171	537	203	1,644	1,193
Net primary products ²⁴.....do....	2,284	1,171	537	203	1,644	1,193
Other products and services.....do....	...	...	...	...
Value added in mining.....do....	1,803	1,061	357	86	1,140	815
Number of persons engaged, total.....	170	83	52	16	150	116
Production and development workers.....	151	79	33	7	130	100
All other employees.....	13	2	1	...	6	4
Proprietors and firm members.....	6	2	18	9	14	12
Performing manual labor.....	3	...	10	6	11	10
Man-hours worked by production and development workers, total...1,000..	337	160	60	11	228	165
At mines, total.....do....	91	27	50	7	124	80
Underground.....do....	...	...	3	...	...	...
Open-pit.....do....	91	27	47	7	120	76
Surface (including mine shops and yards).....do....	...	...	...	...	4	4
At preparation plants.....do....	246	133	10	4	104	85
Man-hours spent on development and exploration work (included above).....do....	4	...	11	...	1	1
Tons of primary products per man-hour ²⁵	1.73	1.59	4.53	(²⁶)	2.32	2.36
Principal expenses designated below, total.....\$1,000..	1,354	668	341	132	1,326	1,071
Wages of production and development workers.....do....	463	218	148	14	499	380
Salaries of all other employees.....do....	59	9	1	...	24	14
Minerals received for preparation.....do....	...	...	...	...	...	...
Supplies ²⁷.....do....	273	135	27	3	128	80
Fuel.....do....	269	108	17	3	201	147
Purchased electric energy.....do....	45	27	...	...	30	24
Contract work.....do....	245	171	148	112	444	426
Purchased machinery installed.....do....	36	26	68	...	648	629
Capital expenditures, total.....do....	387	357	80	1	947	928
Development and exploration of mineral property.....do....	14	2	22	1	...	...
Preparation plant construction.....do....	185	177	...	...	300	300
Other construction.....do....	168	168	...	...	...	...
New machinery and equipment.....do....	20	10	58	...	571	571
Used plant and equipment.....do....	...	...	...	...	76	57
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	5,356	2,384	3,493	902	8,196	6,936
Per production worker.....	35	30	106	(²⁶)	63	69
Prime movers.....	3,586	1,524	3,483	895	5,027	3,867
Electric motors driven by purchased energy.....	1,770	860	10	7	3,169	3,069
Horsepower rating of electric motors driven by energy generated at the establishment.....	...	...	...	...	...	...
Energy used.....million kwh equivalent..	492	242	5	1	137	95
Coal.....1,000 short tons..	...	...	...	...	...	...
Fuel oils.....1,000 barrels..	1	1	1	...	21	3
Gas (natural and manufactured).....million cu. ft..	1,577	775	3	...	258	258
Electric energy purchased.....million kwh..	3	2	...	...	2	2
Electric energy generated and used.....do....	...	...	...	...	...	...
Water intake, including mine water used.....million gallons..	21	11	1	...	5	3
Per production worker.....do....	0.14	0.14	0.03	...	0.04	0.03

D Withheld to avoid approximately disclosing figures of individual companies.

¹In addition to Mississippi and Texas, South Dakota, 2 establishments; Louisiana, 2 establishments; and Oklahoma, 1 establishment.²In addition to Wyoming, Colorado, 1 establishment; Arizona, 2 establishments; Nevada, 1 establishment; and California, 9 establishments.³In addition to Ohio, Indiana, and Missouri, Illinois, 4 establishments; Michigan, 1 establishment; and Minnesota, 1 establishment.⁴In addition to Kentucky and Alabama, Maryland, 3 establishments; West Virginia, 1 establishment; South Carolina, 1 establishment; Georgia, 1 establishment; and Texas, 6 establishments.⁵In addition to Colorado, Montana, 2 establishments; Idaho, 1 establishment; Utah, 5 establishments; and Nevada, 1 establishment.⁶Washington, 7 establishments, and California, 15 establishments.⁷Georgia, 3 establishments, and Florida, 3 establishments.⁸In addition to Texas, Tennessee, 2 establishments; Mississippi, 1 establishment; Utah, 1 establishment; and California, 2 establishments.⁹In addition to South Carolina and Georgia, Pennsylvania, 1 establishment; North Carolina, 3 establishments; and Florida, 2 establishments.¹⁰In addition to Kentucky and Tennessee, Alabama, 1 establishment; Mississippi, 2 establishments; and Arkansas, 1 establishment.¹¹Wyoming, 1 establishment; Utah, 1 establishment; and California, 7 establishments.

Footnotes continued on next page.

Footnotes for Table 3—Continued

- ¹²Maine, 6 establishments; New Hampshire, 5 establishments; and Connecticut, 3 establishments.
- ¹³In addition to North Carolina, Virginia, 2 establishments; Georgia, 2 establishments; and Texas, 2 establishments.
- ¹⁴Colorado, 20 establishments; Arizona, 1 establishment; and California, 1 establishment.
- ¹⁵Nevada, 2 establishments; Washington, 1 establishment; and California, 1 establishment.
- ¹⁶In addition to New Jersey and Pennsylvania, Maine, 3 establishments; New Hampshire, 1 establishment; and New York, 6 establishments.
- ¹⁷In addition to Ohio and Indiana, Illinois, 8 establishments; Michigan, 2 establishments; and Wisconsin, 2 establishments.
- ¹⁸In addition to Iowa, and Missouri, North Dakota, 2 establishments; South Dakota, 2 establishments; Nebraska, 1 establishment; and Kansas, 1 establishment.
- ¹⁹In addition to Virginia and North Carolina, District of Columbia, 1 establishment; West Virginia, 1 establishment; South Carolina, 2 establishments; Georgia, 2 establishments; and Florida, 2 establishments.
- ²⁰In addition to Kentucky, Tennessee, 2 establishments; and Alabama, 8 establishments.
- ²¹In addition to Louisiana, Arkansas, 1 establishment; Oklahoma, 1 establishment; and Texas, 10 establishments.
- ²²In addition to Utah, Montana, 3 establishments; Idaho, 1 establishment; Colorado, 11 establishments; New Mexico, 3 establishments; and Arizona, 1 establishment.
- ²³In addition to California, Washington, 8 establishments; and Oregon, 5 establishments.
- ²⁴See table 1, footnote 7.
- ²⁵Represents long tons for feldspar.
- ²⁶Not computed since the number of proprietors and firm members performing manual labor exceeds one-third of the number of production and development workers.
- ²⁷Includes products purchased for resale without further processing.
- ²⁸The cost of contract work is included with the cost of supplies.
- ²⁹Less than 5,000 gallons.

Table 4.—GENERAL STATISTICS FOR SELECTED CLAY, CERAMIC, AND REFRACTORY MINERALS

(For explanation of line

Item	Bentonite industry			Fire clay industry		
	All types of establishments	Mines only ¹	Mines with preparation plants ²	All types of establishments	Mines only	
					Total	Open-pit mines
1 Number of operating companies.....	29	12	19	180	132	105
2 Number of establishments.....	43	15	28	248	187	128
3 Number of mines.....	43	15	28	252	191	132
4 Number of preparation plants.....	28	...	28	61	...	...
5 Value of shipments.....\$1,000..	21,830	3,235	18,595	22,206	12,128	7,970
6 Value added in mining.....do....	16,350	2,553	13,797	17,468	9,647	6,080
7 Number of persons engaged, total.....	657	167	490	2,154	1,375	619
8 Production and development workers.....	578	158	420	1,802	1,121	451
9 All other employees.....	56	3	53	185	113	55
10 Proprietors and firm members.....	23	6	17	167	141	113
11 Performing manual labor.....	7	2	5	74	60	49
12 Man-hours worked by production and development workers.....1,000..	1,340	322	1,018	3,123	1,799	824
13 Wages and salaries, total.....\$1,000..	2,135	530	1,605	6,598	3,877	1,628
14 Wages of production and development workers.....do....	1,920	516	1,404	5,670	3,345	1,379
15 Salaries of all other employees.....do....	215	14	201	928	532	249
16 New capital expenditures.....do....	488	(D)	(D)	1,188	667	582

Item	Kaolin and ball clay industry					
	All types of establishments	Mines only ⁴	Mines with preparation plants ⁵			
			Total	By principal preparation method		
				Crushing	Drying and calcining	Other and unspecified methods ¹³
1 Number of operating companies.....	40	12	28	7	6	17
2 Number of establishments.....	54	16	38	7	7	24
3 Number of mines.....	61	16	45	8	10	27
4 Number of preparation plants.....	38	...	38	7	7	24
5 Value of shipments.....\$1,000..	31,892	4,018	27,874	5,444	2,215	20,215
6 Value added in mining.....do....	25,249	3,066	22,183	4,715	1,460	16,008
7 Number of persons engaged, total.....	3,167	223	2,944	545	224	2,175
8 Production and development workers.....	2,820	206	2,614	467	199	1,948
9 All other employees.....	328	10	318	75	22	221
10 Proprietors and firm members.....	19	7	12	3	3	6
11 Performing manual labor.....	7	1	6	2	3	1
12 Man-hours worked by production and development workers.....1,000..	6,159	437	5,722	1,009	479	4,234
13 Wages and salaries, total.....\$1,000..	9,943	784	9,159	1,833	642	6,684
14 Wages of production and development workers.....do....	8,115	742	7,373	1,397	518	5,458
15 Salaries of all other employees.....do....	1,828	42	1,786	436	124	1,226
16 New capital expenditures.....do....	4,291	72	4,219	559	84	3,576

(D) Withheld to avoid approximately disclosing figures of individual companies.

¹Represents 13 open-pit mines and 2 combination open-pit and underground mines.²Represents 25 open-pit mines, 1 combination open-pit and underground mine, 1 underground mine, and 1 nonproducing mine and plant.³All open-pit mines.⁴Represents 14 open-pit mines, 1 combination open-pit and underground mine, and 1 nonproducing mine.⁵Represents 44 open-pit mines and 1 dredge.⁶Represents 37 open-pit mines, 1 combination open-pit and underground mine, 5 underground mines, and 44 mines not specifying type of mine. These latter 44 mines accounted for 28 percent of the total value of shipments and interplant transfers for this group.⁷Represents 19 open-pit mines, 1 combination underground and open-pit mine, and 3 underground mines.⁸Represents 95 open-pit mines, 1 combination open-pit and underground mine, 2 underground mines, and 3 nonproducing mines.⁹Represents 82 open-pit mines and 1 nonproducing mine and plant. In addition, 1 separately-operated preparation plant is included in these figures.¹⁰Represents 6 combination open-pit and underground mines and 7 underground mines.

INDUSTRIES IN THE UNITED STATES, BY TYPE OF OPERATION: 1954
 captions, see INTRODUCTION)

Fire clay industry—Continued							Fuller's earth industry					
Mines only--Continued		Mines with preparation plants					All types of establishments	Mines only ³	Mines with preparation plants ³			
Combination open-pit and under-ground mines	Under-ground mines	Total	By type of mine		By principal prepara-tion method				Total	By principal prepara-tion method		
			Open-pit mines	Other mines ¹⁰	Crushing	Other and unspecified methods ¹¹				Drying	Other and unspecified methods ¹²	
7	28	52	43	10	31	23	15	3	12	5	7	1
13	46	61	48	13	38	23	16	3	13	5	8	2
13	46	61	48	13	38	23	19	3	16	8	8	3
...	...	61	48	13	38	23	13	...	13	5	8	4
1,562	2,596	10,078	6,081	3,997	6,749	3,329	6,012	45	5,967	3,811	2,156	5
1,304	2,263	7,821	4,435	3,386	5,487	2,334	4,179	26	4,153	2,775	1,378	6
267	489	779	552	227	430	349	572	8	564	314	250	7
250	420	681	464	217	378	303	510	4	506	269	237	8
15	43	72	66	6	37	35	54	...	54	43	11	9
2	26	26	22	4	15	11	8	4	4	2	2	10
...	11	14	12	2	8	6	4	4	...	...	...	11
374	601	1,324	896	428	712	612	1,109	8	1,101	571	530	12
885	1,364	2,721	1,886	835	1,526	1,195	1,744	12	1,732	1,045	687	13
801	1,165	2,325	1,524	801	1,320	1,005	1,381	12	1,369	772	597	14
84	199	396	362	34	206	190	363	...	363	273	90	15
24	61	521	504	17	393	128	497	(D)	(D)	273	(D)	16

Feldspar industry					Clay, ceramic, and refractory minerals, n.e.c., industry							
All types of establishments	Mines only ⁶	Mines with preparation plants ⁷			All types of establishments	Mines only ⁸	Mines with preparation plants ⁹					
		Total	By principal prepara-tion method				Total	By principal preparation method				
			Dry grinding	Other and unspecified methods ¹⁴				Crushing	Flotation, gravity, washing, and heavy media	Air separation, drying, and calcining	Method unspeci-fied	
58	48	14	5	10	169	87	84	37	7	13	22	1
84	62	22	6	16	183	99	84	41	7	13	23	2
110	87	23	6	17	184	101	83	41	6	13	23	3
22	...	22	6	16	84	...	84	41	7	13	23	4
6,669	902	5,767	835	4,932	13,504	2,823	10,681	2,518	968	2,532	4,663	5
4,048	725	3,323	374	2,949	9,783	2,127	7,656	1,640	841	1,881	3,294	6
700	203	497	84	413	1,250	351	899	236	79	164	420	7
579	120	459	71	388	1,053	283	770	211	67	141	351	8
37	8	29	9	20	98	8	90	5	7	20	58	9
84	75	9	4	5	99	60	39	20	5	3	11	10
70	64	6	4	2	50	32	18	10	3	1	4	11
1,235	206	1,029	151	878	2,174	519	1,655	411	159	322	763	12
1,722	260	1,462	235	1,227	3,823	980	2,843	740	205	596	1,302	13
1,523	219	1,304	201	1,103	3,412	958	2,454	689	160	521	1,084	14
199	41	158	34	124	411	22	389	51	45	75	218	15
389	10	379	11	368	1,717	153	1,564	87	802	287	388	16

¹¹Represents 1 establishment specifying the use of heavy media as the principal preparation method; 2 establishments specifying air separation; 1 specifying drying; 1 calcining; and 18 not specifying the principal preparation method used. These latter 18 establishments accounted for about 90 percent of the total value of shipments and interplant transfers for this group.

¹²Represents 1 nonproducing mine and plant; 1 establishment specifying calcining as the principal preparation method; and 6 establishments not specifying the principal preparation method used. These latter 6 establishments accounted for about 70 percent of the total value of shipments and interplant transfers for this group.

¹³Represents 1 establishment specifying washing as the principal preparation method and 23 establishments not specifying the principal preparation method and 23 establishments not specifying the principal preparation method used.

¹⁴Represents 3 establishments specifying flotation as the principal preparation method; 2 establishments specifying crushing; 1 screening; 1 drying; 1 trimming; and 8 not specifying the principal preparation method used. These latter 8 establishments accounted for about 65 percent of the total value of shipments and interplant transfers for this group.

Table 5A.—VALUE OF SHIPMENTS OF PRIMARY PRODUCTS OF CLAY, CERAMIC, AND REFRACTORY MINERALS INDUSTRIES PRODUCED IN ALL INDUSTRIES AND VALUE OF SECONDARY PRODUCTS AND SERVICES AND COST OF MINERALS RECEIVED FROM OTHER ESTABLISHMENTS FOR PREPARATION IN THESE INDUSTRIES IN THE UNITED STATES: 1954

(For explanation of column captions, see INTRODUCTION)

Industry	Value of shipments and interplant transfers (\$1,000)					Cost of minerals received from other establishments for preparation (\$1,000)
	Total primary and secondary products produced in specified industry	Primary products ²			Secondary products and services	
		Net shipments ¹	Produced in specified industry	Produced and shipped in other mineral industries and in manufacturing industries		
Clay, ceramic, and refractory minerals industries:						
Bentonite.....	21,830	21,157	(D)	(D)	(²)	(D)
Fire clay.....	22,206	21,643	20,808	995	³ 1,398	160
Fuller's earth.....	6,012	6,029	(D)	(D)	(⁴)	...
Kaolin and ball clay.....	31,892	31,170	31,160	24	⁵ 732	14
Feldspar.....	6,669	7,478	6,254	1,654	⁶ 415	430
Magnesite and brucite.....	1,655	1,655	1,655	...	...	...
Clay, ceramic, and refractory minerals, n.e.c.	13,504	14,561	(D)	(D)	(⁷)	(D)

D Withheld to avoid approximately disclosing figures of individual companies.

¹Net shipments represent gross shipments and interplant transfers less the cost of minerals received for preparation. For the Bentonite industry, the cost of minerals received for preparation was less than 3 percent of the total value of shipments of primary products. For the Clay, ceramic, and refractory minerals, n.e.c., industry, the cost of such receipts amounted to less than 1 percent of the total value of shipments of primary products of the industry.²Less than 1 percent of the total value of shipments and interplant transfers of the Bentonite industry. Represents fuller's earth, kaolin, fire clay, salt mud, lignite, wood flour, and receipts for contract services.³Represents common clay (\$382,000); bituminous coal (\$337,000); sand and gravel (\$237,000); crushed limestone, miscellaneous nonmetallic minerals, clay refractories, products purchased for resale without further processing, and electric energy generated and sold (\$155,000 combined); and receipts for contract services (\$287,000).⁴Less than 1 percent of the total value of shipments and interplant transfers of the Fuller's earth industry. Represents bentonite.⁵Represents scrap and ground mica, fire clay, crushed sandstone, and sand and gravel.⁶Represents scrap, ground, and sheet mica (\$147,000); and ground quartz, beryllium concentrates, and kaolin (\$269,000 combined).⁷About 5 percent of the total value of shipments and interplant transfers of the Clay, ceramic, and refractory minerals, n.e.c., industry. Represents crushed granite, sand and gravel, fire clay, bituminous coal, soapstone, ball clay, ground anthracite, and receipts for contract services.

Table 5B.—PRIMARY PRODUCTS OF THE CLAY, CERAMIC, AND REFRACTORY MINERALS INDUSTRIES PRODUCED IN ALL MINING AND MANUFACTURING INDUSTRIES IN THE UNITED STATES: 1954 AND 1939

(For explanation of column captions, see INTRODUCTION)

Product	1954				
	Unit of measure for quantity	Quantity produced and consumed at the same establishment in the manufacture of clay, ceramic, and refractory products	Production (Quantity)	Shipments and interplant transfers	
				Quantity	Value f.o.b. mine or plant (\$1,000)
Bentonite.....	1,000 short tons.	...	(NA)	(D)	(D)
Fire clay.....	...do.....	3,957	(NA)	4,836	21,803
Fuller's earth.....	...do.....	...	(NA)	(D)	(D)
Kaolin.....	...do.....	40	(NA)	} 2,118	31,184
Ball clay.....	...do.....	64	(NA)		
Feldspar.....					
Feldspar mined and processed at establishments classified in the Feldspar industry and in other mineral industries:					
Marketable crude feldspar.....	1,000 long tons.	...	711	161	1,172
Feldspar flotation concentrates.....	...do.....	...	194	...	...
Ground feldspar.....	1,000 short tons.	...	350	350	5,233
Feldspar processed at establishments classified in the manufacturing industries:					
Ground feldspar.....	...do.....	...	(NA)	90	1,503
Magnesite and brucite:					
Crude.....	...do.....	...	416	} 337	1,655
Treated.....	...do.....	...	(D)		
Common clay and shale.....	...do.....	25,803	(NA)	4,560	11,592
Zirconium concentrates.....	...do.....	...	20	20	1,029
Aplite; olivine; and kyanite concentrates.....	...do.....	...	(NA)	126	1,965

See footnotes at end of table.

Table 5B.—PRIMARY PRODUCTS OF THE CLAY, CERAMIC, AND REFRACTORY MINERALS INDUSTRIES PRODUCED IN ALL MINING AND MANUFACTURING INDUSTRIES IN THE UNITED STATES: 1954 AND 1939—Continued

(For explanation of column captions, see INTRODUCTION)

Product	1954—Continued					1939	
	Minerals prepared in the mineral industries			Net shipments and interplant transfers ¹		Production ²	
	Crude ore mined and prepared at the same establishment (Quantity)	Minerals received from other establishments for preparation		Quantity	Value f.o.b. mine or plant (\$1,000)	Quantity	Value f.o.b. mine or plant (\$1,000)
		Quantity	Cost (\$1,000)				
Bentonite.....	(D)	(D)	(D)	1,477	21,157	225	1,919
Fire clay.....	1,980	62	160	4,774	21,643	4,260	7,079
Fuller's earth.....	449	(D)	(D)	311	6,029	186	2,025
Kaolin.....	2,119	3	14	{ 1,807 308	27,263 3,907	753	5,607
Ball clay.....	173					130	944
Feldspar							
Feldspar mined and processed at establishments classified in the Feldspar industry and in other mineral industries:							
Marketable crude feldspar.....	552	62	430	399	3742	216	943
Feldspar flotation concentrates.....	194	...	...	...	...	(NA)	(NA)
Ground feldspar.....	xxx	...	...	350	5,233	4259	42,862
Feldspar processed at establishments classified in the manufacturing industries							
Ground feldspar.....	xxx	xxx	xxx	90	1,503		
Magnesite and brucite:							
Crude.....	}	(D)	...	337	1,655	189	1,398
Treated.....							
Common clay and shale.....	2,362	13	25	4,547	11,567	517,604	57,230
Zirconium concentrates.....	}	505	{ ...	20	1,029	618	6218
Aplite; olivine; and kyanite concentrates.....				126	1,965		

xxx Not applicable.

D Withheld to avoid approximately disclosing figures of individual companies.

NA Not available.

¹See table 5A, footnote 1.

²Excludes production from establishments too small to come within the scope of the 1939 minerals census, but some of which would have come within the scope of the 1954 census. The reported output of such operations consisted primarily of common clay and shale, 1,289 thousand tons valued at \$397 thousand; feldspar, 58 thousand tons valued at \$234 thousand; fire clay, 40 thousand tons valued at \$64 thousand; kaolin, ball clay, rotary drilling muds, and miscellaneous special clays, approximately 3 thousand tons valued at \$10 thousand; and bentonite, about 2 thousand tons valued at \$7 thousand.

³Of this total 82 thousand tons, valued at \$615 thousand, were shipped to grinders classified in the manufacturing industries and 17 thousand tons, valued at \$127 thousand, were shipped to consumers other than grinders.

⁴Represents ground feldspar sold by merchant mills as reported by the Bureau of Mines, U. S. Department of the Interior.

⁵Represents common clay, shale, and rotary drilling muds. These drilling muds, which were classified by type of clay in 1954 and not by use, amounted in 1939 to 118 thousand tons valued at \$416 thousand.

⁶Represents kyanite, andalusite, dumortierite, and miscellaneous special clays.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 6A.—GENERAL STATISTICS FOR CLAY, CERAMIC, AND REFRACTORY MINERALS ESTABLISHMENTS CLASSIFIED BY EMPLOYMENT SIZE, BY GEOGRAPHIC DIVISIONS AND STATES: 1954

(Represents establishments classified in the mineral industries only. For explanation of column captions, see INTRODUCTION)

Industry, geographic division, State, and number of employees in establishment	Number of estab- lish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
BENTONITE INDUSTRY									
United States, total.....	43	21,830	16,350	578	56	1,340	1,920	215	488
0.....	7	469	263	...	...	...	...	...	...
1-4.....	12	280	124	25	3	40	61	8	...
5-9.....	2	1,709	1,310	93	11	201	301	45	60
10-19.....	6								
20-49.....	14	19,372	14,653	460	42	1,099	1,558	162	428
50-99.....	2								
West North Central and South Central, total...	19	8,108	5,357	323	27	756	1,007	99	218
0.....	2	129	56	11	...	13	14	...	...
1-4.....	3								
5-9.....	1	914	716	56	1	126	156	3	(D)
10-19.....	3								
20-49.....	9	7,065	4,585	256	26	617	837	96	(D)
50-99.....	1								
Mississippi, total.....	7	3,047	2,281	139	7	306	388	22	74
5-9.....	1	3,047	2,281	139	7	306	388	22	74
10-19.....	1								
20-49.....	5								
Texas, total.....	7	1,866	1,175	80	10	188	218	39	74
0.....	2	1,866	1,175	80	10	188	218	39	74
1-4.....	1								
10-19.....	1								
20-49.....	3								
West, total.....	24	13,722	10,993	255	29	584	913	116	270
0.....	5	620	331	14	3	27	47	8	...
1-4.....	9								
5-9.....	1	795	594	37	10	75	145	42	(D)
10-19.....	3								
20-49.....	5	12,307	10,068	204	16	482	721	66	...
50-99.....	1								
Wyoming, total.....	11	12,943	10,389	185	25	424	655	107	250
0.....	1	12,943	10,389	185	25	424	655	107	250
1-4.....	2								
10-19.....	3								
20-49.....	5								
FIRE CLAY INDUSTRY									
United States, total.....	248	22,206	17,468	1,802	185	3,123	5,670	928	1,188
0.....	39	1,214	698	...	...	...	...	...	33
1-4.....	102	3,428	2,476	228	21	391	592	61	147
5-9.....	41	2,704	2,003	241	23	506	839	114	184
10-19.....	37	6,162	5,136	411	61	608	1,086	267	203
20-49.....	26	7,649	6,341	724	61	1,221	2,550	399	609
50-99.....	3	1,049	814	198	19	397	603	87	12
Middle Atlantic, total.....	66	6,128	5,165	651	70	1,117	2,065	305	160
0.....	3	8	8	...	...	...	...	...	2
1-4.....	25	445	326	62	5	107	178	20	16
5-9.....	12	1,112	905	66	10	111	183	39	9
10-19.....	14	2,431	2,147	159	29	279	508	113	102
20-49.....	11	2,132	1,779	364	26	620	1,196	133	31
50-99.....	1								
New Jersey, total.....	8	692	501	97	18	221	336	62	17
1-4.....	5	88	68	12	1	25	33	4	(D)
10-19.....	2	604	433	85	17	196	303	58	(D)
50-99.....	1								
Pennsylvania, total.....	58	5,436	4,664	554	52	896	1,729	243	143
0.....	3	8	8	...	...	...	...	...	(D)
1-4.....	20	357	258	50	4	82	145	16	7
5-9.....	12	1,112	905	66	10	111	183	39	9
10-19.....	12	3,959	3,493	438	38	703	1,401	188	(D)
20-49.....	11								
North Central, total.....	102	11,735	8,880	681	67	1,287	2,294	379	644
0.....	13	519	299	...	...	...	...	...	8
1-4.....	48	2,184	1,557	108	12	190	284	23	76
5-9.....	17	1,180	745	105	8	202	326	47	146
10-19.....	13	2,833	2,245	152	14	292	554	76	15
20-49.....	11	5,019	4,034	316	33	603	1,130	233	399

See footnote at end of table.

Table 6A.—GENERAL STATISTICS FOR CLAY, CERAMIC, AND REFRACTORY MINERALS ESTABLISHMENTS CLASSIFIED BY EMPLOYMENT SIZE, BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

(Represents establishments classified in the mineral industries only. For explanation of column captions, see INTRODUCTION)

Industry, geographic division, State, and number of employees in establishment	Number of estab- lish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
FIRE CLAY INDUSTRY—Continued									
North Central—Continued									
Ohio, total.....	38	7,503	6,103	389	41	747	1,416	270	(D)
0.....	2	1,040	742	33	5	58	103	6	...
1-4.....	16								
5-9.....	5	215	155	33	1	59	110	8	...
10-19.....	6	6,248	5,206	323	35	630	1,203	256	...
20-49.....	9								
Indiana, total.....	9	947	675	47	3	100	207	7	(D)
0.....	2	472	340	9	1	19	39	...	...
1-4.....	3								
5-9.....	2	475	335	38	2	81	168	7	(D)
10-19.....	2								
Missouri, total.....	49	3,021	1,893	219	22	399	603	101	157
0.....	8	239	125	...	...	...	...	...	8
1-4.....	26	793	522	63	6	105	132	17	56
5-9.....	9	642	460	53	4	104	141	31	62
10-19.....	4	1,347	786	103	12	190	330	53	31
20-49.....	2								
South, total.....	33	2,564	2,110	339	33	483	875	155	92
0.....	5	59	53	...	...	...	...	...	...
1-4.....	12	372	279	29	1	47	51	5	30
5-9.....	4	151	128	23	3	39	51	24	13
10-19.....	7	632	492	70	12	105	179	45	44
20-49.....	3	1,350	1,158	217	17	292	594	81	5
50-99.....	2								
Kentucky, total.....	14	1,105	969	238	22	303	591	107	52
0.....	2	97	94	8	1	9	13	5	...
1-4.....	4								
10-19.....	4	232	207	41	4	64	106	21	(D)
20-49.....	2	776	668	189	17	230	472	81	(D)
50-99.....	2								
Alabama, total.....	7	884	707	61	5	106	182	26	16
1-4.....	3	884	707	61	5	106	182	26	16
5-9.....	2								
10-19.....	1	884	707	61	5	106	182	26	16
20-49.....	1								
Mountain, total.....	25	749	549	76	4	138	219	13	39
0.....	6	180	94	...	...	...	...	...	(D)
1-4.....	11	234	152	20	2	29	47	9	(D)
5-9.....	7	335	303	56	2	109	172	4	(D)
10-19.....	1								
Colorado, total.....	16	571	433	66	4	125	202	13	38
0.....	2	236	130	10	2	16	30	9	(D)
1-4.....	6								
5-9.....	7	335	303	56	2	109	172	4	(D)
10-19.....	1								
Pacific (Washington and California), total....	22	1,030	764	55	11	98	217	76	253
0.....	12	448	244	...	...	...	...	...	22
1-4.....	6	193	162	9	1	18	32	4	2
5-9.....	1	389	358	46	10	80	185	72	229
10-19.....	2								
20-49.....	1								
FULLER'S EARTH INDUSTRY									
United States, total.....	16	6,012	4,179	510	54	1,109	1,381	363	497
0.....	1	335	250	31	4	72	99	13	130
1-4.....	7								
5-9.....	1	5,677	3,929	479	50	1,037	1,282	350	367
10-19.....	1								
20-49.....	4	5,677	3,929	479	50	1,037	1,282	350	367
100-249.....	1								
250-499.....	1								
South Atlantic, total.....	6	5,362	3,679	447	48	981	1,212	340	360
0.....	1	5,362	3,679	447	48	981	1,212	340	360
10-19.....	1								
20-49.....	2	5,362	3,679	447	48	981	1,212	340	360
100-249.....	1								
250-499.....	1								

See footnote at end of table.

Table 6A.—GENERAL STATISTICS FOR CLAY, CERAMIC, AND REFRACTORY MINERALS ESTABLISHMENTS CLASSIFIED BY EMPLOYMENT SIZE, BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

(Represents establishments classified in the mineral industries only. For explanation of column captions, see INTRODUCTION)

Industry, geographic division, State, and number of employees in establishment	Number of estab- lish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
FULLER'S EARTH INDUSTRY—Continued									
South Central and West, total.....	10	650	500	63	6	128	169	23	137
1-4.....	7	650	500	63	6	128	169	23	137
5-9.....	1								
20-49.....	2								
Texas, total.....	4	138	115	10	1	17	30	2	...
1-4.....	4	138	115	10	1	17	30	2	...
KAOLIN AND BALL CLAY INDUSTRY									
United States, total.....	54	31,892	25,249	2,820	328	6,159	8,115	1,828	4,291
0.....	4	55	43	...	...	...	...	...	...
1-4.....	10	768	469	21	1	39	49	5	44
5-9.....	4	145	91	27	5	42	41	27	12
10-19.....	8	1,708	1,262	101	18	217	272	107	74
20-49.....	13	5,193	3,649	432	33	871	1,056	151	126
50-99.....	8	4,712	3,474	516	30	1,173	1,444	154	300
100-249.....	4	7,145	5,973	662	75	1,446	1,935	437	1,656
250-499.....	3	12,166	10,288	1,061	166	2,371	3,318	947	2,079
Middle Atlantic and South Atlantic, total.....	29	25,517	20,355	2,436	285	5,351	6,943	1,581	4,135
1-4.....	5	900	491	51	7	96	104	21	53
5-9.....	2								
10-19.....	2								
20-49.....	8	5,306	3,603	662	37	1,438	1,586	176	347
50-99.....	5								
100-249.....	4								
250-499.....	3	12,166	10,288	1,061	166	2,371	3,318	947	2,079
South Carolina, total.....	6	4,104	3,009	366	47	758	916	244	151
5-9.....	1	4,104	3,009	366	47	758	916	244	151
10-19.....	1								
20-49.....	2								
100-249.....	2								
Georgia, total.....	17	20,021	16,486	1,828	229	4,075	5,523	1,301	3,887
1-4.....	4	379	228	15	3	24	26	7	44
5-9.....	1								
20-49.....	4								
50-99.....	3	5,512	4,579	613	48	1,397	1,806	296	1,732
100-249.....	2								
250-499.....	3								
South Central, total.....	16	4,408	3,268	289	32	631	797	203	150
1-4.....	2	1,520	1,138	93	17	193	246	118	77
5-9.....	2								
10-19.....	6								
20-49.....	4	2,888	2,130	196	15	438	551	85	73
50-99.....	2								
Kentucky, total.....	4	1,363	1,078	80	3	190	265	24	61
5-9.....	2	1,362	1,078	80	3	190	265	24	61
10-19.....	1								
50-99.....	1								
Tennessee, total.....	8	2,458	1,783	178	23	381	445	135	68
1-4.....	1	2,458	1,783	178	23	381	445	135	68
10-19.....	2								
20-49.....	4								
50-99.....	1								
West, total.....	9	1,967	1,626	95	11	177	375	44	6
0.....	4	1,967	1,626	95	11	177	375	44	6
1-4.....	3								
20-49.....	1								
50-99.....	1								
FELDSPAR INDUSTRY									
United States, total.....	84	6,669	4,048	579	37	1,235	1,523	199	389
0.....	37	338	287	...	...	...	...	...	8
1-4.....	18	148	108	31	1	54	57	...	2
5-9.....	13	617	429	83	6	156	174	20	12
10-19.....	6	896	504	78	4	159	397	31	196
20-49.....	9	4,670	2,720	387	26	866	895	148	171
100-249.....	1								

See footnote at end of table.

Table 6A.—GENERAL STATISTICS FOR CLAY, CERAMIC, AND REFRACTORY MINERALS ESTABLISHMENTS CLASSIFIED BY EMPLOYMENT SIZE, BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

(Represents establishments classified in the mineral industries only. For explanation of column captions, see INTRODUCTION)

Industry, geographic division, State, and number of employees in establishment	Number of estab- lish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Men-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
FELDSPAR INDUSTRY—Continued									
New England, total.....	14	1,207	858	139	17	312	419	87	55
0.....	4	229	130	28	6	61	83	19	7
1-4.....	2								
5-9.....	4								
10-19.....	1								
20-49.....	3	978	728	111	11	251	336	68	48
West North Central (South Dakota), total.....	14	800	502	72	2	180	218	8	49
0.....	11	800	502	72	2	180	218	8	49
1-4.....	1								
20-49.....	2								
South, total.....	34	3,867	2,206	330	11	652	754	64	274
0.....	8	214	178	...	...	...	...	...	2
1-4.....	10	42	36	17	...	27	22	...	2
5-9.....	8	3,611	1,992	313	11	625	732	64	270
10-19.....	4								
20-49.....	3								
100-249.....	1								
North Carolina, total.....	28	3,536	2,079	279	8	542	637	49	108
0.....	6	235	195	16	...	26	21	...	4
1-4.....	9								
5-9.....	8								
10-19.....	2								
20-49.....	2	3,301	1,884	263	8	516	616	49	104
100-249.....	1								
West, total.....	22	795	482	38	7	91	132	40	11
0.....	14	33	30	...	...	...	...	...	1
1-4.....	5	762	452	38	7	91	132	40	10
5-9.....	1								
10-19.....	1								
20-49.....	1								
MAGNESITE AND BRUCITE									
United States, total.....	4	1,655	1,372	121	11	237	469	70	17
0.....	2	1,655	1,372	121	11	237	469	70	17
1-4.....	1								
10-19.....	1								
CLAY, CERAMIC, AND REFRACTORY MINERALS, N.E.C., INDUSTRY									
United States, total.....	183	13,504	9,783	1,053	98	2,174	3,412	411	1,717
0.....	42	538	196	...	...	...	...	...	809
1-4.....	78	1,428	1,082	140	5	274	430	9	74
5-9.....	29	1,681	1,226	175	6	341	556	19	101
10-19.....	14	2,448	1,719	191	31	489	599	119	76
20-49.....	18	7,409	5,560	547	56	1,070	1,827	264	657
50-99.....	2								
Northeast, total.....	30	2,106	1,480	154	22	316	541	84	23
0.....	4	58	33	...	...	...	...	...	...
1-4.....	13	158	137	18	2	36	48	1	...
5-9.....	7	507	357	40	4	81	136	16	2
10-19.....	3	794	513	38	5	92	154	22	15
20-49.....	3	589	440	58	11	107	203	45	6
New Jersey, total.....	7	825	586	52	6	102	181	16	...
1-4.....	2	825	586	52	6	102	181	16	...
5-9.....	3								
10-19.....	1								
20-49.....	1								
Pennsylvania, total.....	13	871	554	49	11	107	184	39	9
0.....	3	110	76	4	2	11	11	1	...
1-4.....	5	761	480	45	9	96	173	38	9
5-9.....	3								
10-19.....	1								
20-49.....	1								
East North Central, total.....	29	1,163	753	87	...	169	290	...	95
0.....	7	32	23	...	...	...	...	...	...
1-4.....	14	333	246	28	...	53	89	...	42
5-9.....	7	798	484	59	...	116	201	...	53
20-49.....	1								
Ohio, total.....	9	232	203	19	...	37	66	...	27
0.....	3	232	203	19	...	37	66	...	27
1-4.....	5								
5-9.....									

See footnote at end of table.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 6A.—GENERAL STATISTICS FOR CLAY, CERAMIC, AND REFRACTORY MINERALS ESTABLISHMENTS CLASSIFIED BY EMPLOYMENT SIZE, BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

(Represents establishments classified in the mineral industries only. For explanation of column captions, see INTRODUCTION)

Industry, geographic division, State, and number of employees in establishment	Number of estab- lish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
CLAY, CERAMIC, AND REFRACTORY MINERALS, N.E.C., INDUSTRY—Continued									
East North Central—Continued									
Indians, total.....	8	229	182	23	...	43	54	...	8
0.....	2	229	182	23	...	43	54	...	8
1-4.....	2								
5-9.....	4								
West North Central, total.....	14	1,636	1,135	106	10	254	443	45	114
0.....	1	1,636	1,135	106	10	254	443	45	114
1-4.....	6								
5-9.....	3								
10-19.....	2								
20-49.....	2								
Iowa, total.....	4	124	77	11	...	25	39	...	11
0.....	1	124	77	11	...	25	39	...	11
1-4.....	2								
5-9.....	1								
Missouri, total.....	4	763	588	48	2	107	217	15	65
1-4.....	2	763	588	48	2	107	217	15	65
5-9.....	1								
20-49.....	1								
South Atlantic, total.....	19	3,293	2,538	291	34	610	728	162	119
1-4.....	8	280	199	27	...	59	73	...	1
5-9.....	1								
10-19.....	4								
20-49.....	4	2,302	1,701	202	25	449	514	128	99
50-99.....	2								
Virginia, total.....	4	1,318	887	100	15	223	293	82	81
1-4.....	1	1,318	887	100	15	223	293	82	81
20-49.....	2								
50-99.....	1								
North Carolina, total.....	7	655	513	55	4	129	154	15	4
1-4.....	5	655	513	55	4	129	154	15	4
10-19.....	1								
20-49.....	1								
East South Central, total.....	13	841	577	101	12	200	300	36	28
0.....	2	95	82	8	...	18	22	...	...
1-4.....	3								
5-9.....	4								
10-19.....	2	746	495	93	12	182	278	36	28
20-49.....	2								
Kentucky, total.....	3	449	300	40	8	88	158	26	11
5-9.....	1	449	300	40	8	88	158	26	11
10-19.....	1								
20-49.....	1								
West South Central, total.....	16	2,284	1,803	151	13	337	463	59	387
0.....	3	62	9	...	...	...	...	...	...
1-4.....	6	184	163	13	...	25	43	...	12
5-9.....	1	2,038	1,631	138	13	312	420	59	375
10-19.....	2								
20-49.....	4								
Louisiana, total.....	4	1,171	1,061	79	2	160	218	9	357
5-9.....	1	1,171	1,061	79	2	160	218	9	357
10-19.....	1								
20-49.....	2								
Mountain, total.....	27	537	357	33	1	60	148	1	80
0.....	13	227	81	...	...	...	...	...	9
1-4.....	11	103	62	17	...	29	78	...	...
5-9.....	3	207	214	16	1	31	70	1	71
Utah, total.....	8	203	86	7	...	11	14	...	1
0.....	5	158	49	...	...	...	...	...	...
1-4.....	2	45	37	7	...	11	14	...	1
5-9.....	1								

See footnote at end of table.

Table 6A.—GENERAL STATISTICS FOR CLAY, CERAMIC, AND REFRACTORY MINERALS ESTABLISHMENTS CLASSIFIED BY EMPLOYMENT SIZE, BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

(Represents establishments classified in the mineral industries only. For explanation of column captions, see INTRODUCTION)

Industry, geographic division, State, and number of employees in establishment	Number of estab- lish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
CLAY, CERAMIC, AND REFRACTORY MINERALS, N.E.C., INDUSTRY—Continued									
Pacific, total.....	35	1,644	1,140	130	6	228	499	24	871
0.....	12	153	45	...	...	...	...	...	800
1-4.....	17	1,491	1,095	130	6	228	499	24	71
5-9.....	3								
10-19.....	1								
20-49.....	2								
California, total.....	22	1,193	815	100	4	165	380	14	871
0.....	7	118	28	...	...	...	...	...	800
1-4.....	11	1,075	787	100	4	165	380	14	71
5-9.....	2								
10-19.....	1								
20-49.....	2								

D Withheld to avoid approximately disclosing figures of individual companies.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 6B.—NUMBER OF CLAY, CERAMIC, AND REFRACTORY MINERALS MINES INCLUDED IN ESTABLISHMENTS CLASSIFIED IN THE

Geographic division and State		Total, all clay, ceramic, and refractory minerals mines included in manufacturing establishments						
		Total, all mines	Mines with an average of—					
			No employees	1-4 employees	5-9 employees	10-19 employees	20-49 employees	50-99 employees
1	United States, total.....	731	42	418	160	76	33	2
2	New England, total.....	18	2	13	3	...	...	...
3	Maine.....	1	...	1	...	...	...	...
4	New Hampshire.....	2	...	2	...	...	...	...
5	Vermont.....	1	1	...	...	...	...	...
6	Massachusetts.....	6	1	4	1	...	...	...
7	Connecticut.....	8	...	6	2	...	...	...
8	Middle Atlantic, total.....	112	5	63	25	10	9	...
9	New York.....	25	2	14	6	2	1	...
10	New Jersey.....	13	1	7	5	...	...	...
11	Pennsylvania.....	74	2	42	14	8	8	...
12	East North Central, total.....	192	11	100	47	24	10	...
13	Ohio.....	111	6	54	27	17	7	...
14	Indiana.....	28	3	14	5	5	1	...
15	Illinois.....	33	...	21	9	2	1	...
16	Michigan.....	14	...	8	5	...	1	...
17	Wisconsin.....	6	2	3	1	...	...	...
18	West North Central, total.....	68	4	40	19	5	...	...
19	Minnesota.....	2	...	...	1	1	...	...
20	Iowa.....	24	1	16	6	1	...	...
21	Missouri.....	17	1	8	6	2	...	...
22	North Dakota.....	1	1	...	...	...	...	...
23	South Dakota.....	1	...	1	...	...	...	...
24	Nebraska.....	8	...	6	2	...	...	...
25	Kansas.....	15	1	9	4	1	...	...
26	South Atlantic, total.....	99	2	57	24	13	2	1
27	Delaware.....	2	...	2	...	...	...	...
28	Maryland.....	11	...	6	3	2	...	...
29	District of Columbia.....	1	...	1	...	...	...	...
30	Virginia.....	15	...	10	5	...	...	...
31	West Virginia.....	13	1	5	2	4	...	1
32	North Carolina.....	27	1	18	7	1	...	...
33	South Carolina.....	15	...	9	2	4	...	...
34	Georgia.....	14	...	6	4	2	2	...
35	Florida.....	1	...	...	1	...	...	...
36	East South Central, total.....	60	6	40	10	2	2	...
37	Kentucky.....	12	2	9	...	1	...	...
38	Tennessee.....	16	1	11	3	...	1	...
39	Alabama.....	21	1	13	6	...	1	...
40	Mississippi.....	11	2	7	1	1	...	...
41	West South Central, total.....	84	3	41	17	12	10	1
42	Arkansas.....	9	...	5	1	...	2	1
43	Louisiana.....	14	...	6	3	4	1	...
44	Oklahoma.....	12	1	7	1	1	2	...
45	Texas.....	49	2	23	12	7	5	...
46	Mountain, total.....	32	4	20	4	4	...	...
47	Montana.....	2	...	2	...	...	...	...
48	Idaho.....	5	...	5	...	...	...	...
49	Wyoming.....	3	1	1	...	1	...	...
50	Colorado.....	15	3	6	3	3	...	...
51	New Mexico.....	1	...	1	...	...	...	...
52	Arizona.....	3	...	2	1	...	...	...
53	Utah.....	2	...	2	...	...	...	...
54	Nevada.....	1	...	1	...	...	...	...
55	Pacific, total.....	66	5	44	11	6	...	...
56	Washington.....	15	2	10	3	...	...	...
57	Oregon.....	13	1	12	...	...	...	...
58	California.....	38	2	22	8	6	...	...

MANUFACTURING INDUSTRIES CLASSIFIED BY EMPLOYMENT SIZE OF MINE, BY GEOGRAPHIC DIVISIONS AND STATES: 1954

Fire clay mines							Kaolin and ball clay mines				Common clay and shale mines					
Total, all mines	Mines with an average of--						Total, all mines	Mines with an average of--			Total, all mines	Mines with an average of--				
	No em- ployees	1-4 em- ployees	5-9 em- ployees	10-19 em- ployees	20-49 em- ployees	50-99 em- ployees		No em- ployees	1-4 em- ployees	5-9 em- ployees		No em- ployees	1-4 em- ployees	5-9 em- ployees	10-19 em- ployees	20-49 em- ployees
105	6	26	32	24	15	2	8	2	5	1	618	34	387	127	52	18
...	18	2	13	3	...	...
...	1	...	1	...	...	...
...	2	...	2	...	...	...
...	1	...	...	...	...	...
...	6	1	4	1	...	...
...	8	...	6	2	...	...
25	...	6	8	5	6	...	1	1	...	...	86	4	57	17	5	3
1	...	1	...	...	...	...	...	...	...	...	24	2	13	6	2	1
2	...	1	1	...	...	...	...	...	...	...	11	1	6	4	...	...
22	...	4	7	5	6	...	1	1	...	...	51	1	38	7	3	2
46	2	13	14	11	6	...	...	...	...	...	146	9	87	33	13	4
38	1	9	13	9	6	...	...	...	...	...	73	5	45	14	8	1
5	1	2	1	1	...	...	...	...	...	...	23	2	12	4	4	1
2	...	1	...	1	...	...	...	...	...	...	31	...	20	9	1	1
1	...	1	...	...	...	...	...	...	...	...	13	...	7	5	...	1
...	6	2	3	1	...	...
6	...	3	2	1	...	...	...	...	...	...	62	4	37	17	4	...
...	2	...	...	1	1	...
2	...	2	...	...	...	...	...	...	...	...	22	1	14	6	1	...
2	1	1	...	...	...	...	...	...	15	1	8	5	1	...
...	1	1	...	...	...	...
...	1	...	1	...	...	...
1	...	1	...	...	...	...	...	...	...	...	7	...	5	2	...	...
1	1	...	...	...	...	...	...	...	14	1	9	3	1	...
7	...	1	2	3	...	1	3	...	2	1	89	2	54	21	10	2
...	2	...	2	...	...	...
2	2	...	...	...	...	...	...	9	...	6	3	...	...
...	1	...	1	...	...	...
...	15	...	10	5	...	...
4	2	1	...	1	1	...	1	...	8	1	4	...	3	...
1	...	1	...	...	...	...	...	...	...	...	26	1	17	7	1	...
...	2	...	1	1	13	...	8	1	4	...
...	14	...	6	4	2	...
...	1	...	...	1	...	...
4	2	1	...	...	1	...	1	1	...	...	55	3	39	10	2	1
2	1	1	...	...	...	...	...	...	...	...	10	1	8	...	1	...
...	1	1	...	...	15	...	11	3	...	1
1	1	...	...	...	...	...	20	1	13	6	...	...
1	1	...	...	...	...	...	...	...	...	...	10	1	7	1	1	...
10	2	1	3	1	2	1	1	...	1	...	73	1	39	14	11	8
2	1	...	...	1	...	...	...	...	7	...	5	...	...	2
...	14	...	6	3	4	1
...	12	1	7	1	1	2
8	2	1	2	1	2	...	1	...	1	...	40	...	21	10	6	3
4	...	1	...	3	...	...	...	...	...	...	28	4	19	4	1	...
...	2	...	2	...	...	...
1	...	1	...	...	...	...	...	...	...	...	4	...	4	...	...	...
...	3	1	1	...	1	...
3	3	...	...	...	...	...	...	12	3	6	3	...	...
...	1	...	1	...	...	...
...	3	...	2	1	...	...
...	2	...	2	...	...	...
...	1	...	1	...	...	...
3	3	...	...	...	2	...	2	...	61	5	42	8	6	...
1	1	...	...	...	...	...	...	...	14	2	10	2	...	...
...	1	...	1	...	12	1	11	...	...	...
2	2	...	...	...	1	...	1	...	35	2	21	6	6	...

Table 7.—MONTHLY EMPLOYMENT IN THE CLAY, CERAMIC, AND REFRACTORY MINERALS INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954

Industry, geographic division, and State	Average employment for the year ¹	Number of employees by month											
		January	February	March	April	May	June	July	August	September	October	November	December
BENTONITE INDUSTRY													
United States, total.....	634	632	631	628	627	627	661	652	676	647	626	609	599
West North Central and South Central.....	350	347	354	347	345	350	365	361	373	352	347	331	327
Mississippi.....	146	146	147	147	143	146	145	143	144	142	145	150	155
Texas.....	90	97	94	97	97	99	97	93	92	90	74	73	73
West.....	284	285	277	281	282	277	296	291	303	295	279	278	272
Wyoming.....	210	206	207	210	217	210	222	219	219	216	204	200	201
FIRE CLAY INDUSTRY													
United States, total.....	1,987	2,111	2,104	2,120	1,969	1,985	1,976	1,927	1,856	1,892	1,939	1,967	1,934
Middle Atlantic, total.....	721	775	778	794	719	714	706	658	635	685	717	723	701
New Jersey.....	115	103	105	109	119	117	118	118	114	115	123	120	115
Pennsylvania.....	606	672	673	685	600	597	588	540	521	570	594	603	586
North Central.....	748	792	786	791	750	758	750	751	740	724	703	707	695
Ohio.....	430	449	444	455	437	422	418	424	421	412	416	417	422
Indiana.....	50	50	50	49	50	48	49	50	50	50	50	50	50
Missouri.....	241	277	278	270	246	256	249	242	233	232	203	205	190
South.....	372	411	407	408	371	372	372	364	321	335	366	376	385
Kentucky.....	260	300	296	301	262	266	264	261	216	231	247	254	248
Alabama.....	66	63	63	62	63	61	62	57	60	59	74	77	92
Mountain.....	80	78	78	72	72	73	77	79	80	80	83	82	77
Colorado.....	70	72	69	63	64	66	69	71	68	68	75	72	68
Pacific (Washington and California).....	66	55	55	55	57	68	71	75	80	68	70	79	76
FULLER'S EARTH INDUSTRY													
United States, total.....	564	545	558	564	563	570	572	572	585	564	555	556	555
South Atlantic.....	495	467	477	487	493	509	511	511	520	498	487	488	489
South Central and West.....	69	78	81	77	70	61	61	61	65	66	68	68	66
Texas.....	11	21	21	21	15	5	5	5	5	5	7	7	7
KAOLIN AND BALL CLAY INDUSTRY													
United States, total.....	3,148	3,162	3,171	3,174	3,202	3,185	3,168	3,144	3,127	3,129	3,109	3,107	3,109
Middle Atlantic and South Atlantic.....	2,721	2,755	2,760	2,759	2,778	2,750	2,730	2,714	2,685	2,691	2,671	2,679	2,697
South Carolina.....	413	412	407	409	420	417	419	414	421	411	409	410	406
Georgia.....	2,057	2,079	2,094	2,091	2,099	2,080	2,064	2,053	2,026	2,031	2,012	2,027	2,049
South Central.....	321	302	307	310	321	332	328	327	334	331	332	325	304
Kentucky.....	83	80	80	81	81	82	82	82	83	83	83	83	83
Tennessee.....	201	184	189	191	202	210	207	204	212	212	211	206	185
West.....	106	105	104	105	103	103	110	103	108	107	106	103	108
FELDSPAR INDUSTRY													
United States, total.....	616	609	626	626	606	603	633	620	606	591	617	617	627
New England.....	156	163	164	163	159	157	156	146	151	146	156	152	153
West North Central (South Dakota).....	74	73	79	79	73	64	74	79	75	72	74	73	73
South.....	341	330	338	337	332	340	361	353	336	328	338	341	350
North Carolina.....	287	288	295	291	288	287	301	298	281	271	274	275	284
West.....	45	43	45	47	42	42	42	42	44	45	49	51	51
MAGNESITE AND BRUCITE INDUSTRY													
United States.....	132	196	176	75	138	134	105	126	130	138	102	126	142
CLAY, CERAMIC, AND REFRACTORY MINERALS, N.E.C., INDUSTRY													
United States, total.....	1,151	1,029	1,038	1,106	1,163	1,140	1,199	1,186	1,191	1,213	1,208	1,151	1,154
Northeast.....	176	141	135	136	181	170	186	196	200	201	189	183	179
New Jersey.....	58	60	57	55	56	58	58	61	59	61	58	57	58
Pennsylvania.....	60	55	49	42	77	46	59	60	68	68	68	67	65
East North Central.....	87	78	80	85	92	91	90	94	86	86	86	85	84
Ohio.....	19	16	16	17	17	16	18	23	19	19	19	18	18
Indiana.....	23	16	18	20	26	26	26	25	26	26	26	25	24

See footnote at end of table.

Table 7.—MONTHLY EMPLOYMENT IN THE CLAY, CERAMIC, AND REFRACTORY MINERALS INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

Industry, geographic division, and State	Average employ- ment for the year ¹	Number of employees by month—Continued											
		January	Feb- ruary	March	April	May	June	July	August	Sep- tember	October	No- vember	De- cember
CLAY, CERAMIC, AND REFRACTORY MINERALS, N.E.C., INDUSTRY—Continued													
West North Central.....	116	102	110	124	125	124	127	116	115	125	124	110	117
Iowa.....	11	11	11	12	11	11	12	11	12	11	11	11	12
Missouri.....	50	54	54	55	55	54	56	48	49	48	49	49	52
South Atlantic.....	325	312	323	324	322	304	320	305	308	320	350	352	352
Virginia.....	115	125	121	120	120	117	118	109	110	112	113	110	109
North Carolina.....	59	55	66	64	62	56	62	53	51	57	60	64	64
East South Central.....	113	99	101	114	109	107	115	115	116	119	111	116	140
Kentucky.....	48	46	46	46	46	46	46	48	50	50	50	50	51
West South Central.....	164	156	158	165	163	165	174	175	173	171	166	152	151
Louisiana.....	81	72	76	82	81	83	91	88	87	85	85	71	72
Mountain.....	34	31	30	32	32	34	34	35	36	38	36	31	31
Utah.....	7	5	5	5	5	7	6	7	9	9	8	7	6
Pacific.....	136	110	101	126	139	145	153	150	157	153	146	122	100
California.....	104	86	78	102	103	110	116	111	117	118	111	96	74

¹Represents the sum of the average employment figures for the year as shown in the separate establishment reports. These are the averages shown in other tables of this report. Because of roundings, the sum of such averages may differ slightly from the average of the January to December totals shown above.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 8.—GENERAL STATISTICS FOR SELECTED CLAY, CERAMIC, AND REFRACTORY MINERALS ESTABLISHMENTS CLASSIFIED BY OUTPUT PER MAN-HOUR, BY GEOGRAPHIC DIVISIONS, AND BY TYPE OF OPERATION: 1954

(For explanation of column captions, see INTRODUCTION)

Tons per man-hour ¹	Number of establishments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
BENTONITE INDUSTRY									
United States, total.....	43	21,830	16,350	578	56	1,340	1,920	215	488
Less than 0.10.....	2	1,669	1,296	94	10	199	259	44	41
0.20-0.39.....	4								
0.40-0.59.....	2								
0.80-0.99.....	3	3,488	2,830	162	10	342	479	40	107
1.00-1.49.....	3								
1.50-1.99.....	2								
Unclassified ²	27	16,673	12,224	322	36	799	1,182	131	340
Geographic Division									
West North Central and South Central, total.....	19	8,108	5,357	323	27	756	1,007	99	218
Less than 0.10.....	1	1,628	1,266	85	8	175	215	38	21
0.20-0.39.....	2								
0.40-0.59.....	2								
0.80-0.99.....	3	2,347	1,793	109	4	243	349	12	71
1.00-1.49.....	1								
1.50-1.99.....	2								
Unclassified ²	8	4,133	2,298	129	15	338	443	49	126
West, total.....	24	13,722	10,993	255	29	584	913	116	270
Less than 0.10.....	1	1,182	1,067	62	8	123	174	34	56
0.20-0.39.....	2								
1.00-1.49.....	2								
Unclassified ²	19	12,540	9,926	193	21	461	739	82	214
Type of Operation									
Mines without preparation plants, total...	15	3,235	2,553	158	3	322	516	14	(D)
0.20-0.39.....	1	1,907	1,702	94	2	184	299	11	(D)
0.80-0.99.....	1								
1.00-1.49.....	1								
1.50-1.99.....	2	1,328	851	64	1	138	217	3	...
Unclassified ²	10								
Mines with preparation plants, total.....	28	18,595	13,797	420	53	1,016	1,404	201	(D)
Less than 0.10.....	2	3,250	2,424	162	18	357	439	73	(D)
0.20-0.39.....	3								
0.40-0.59.....	2								
0.80-0.99.....	2	15,345	11,373	258	35	659	965	128	340
1.00-1.49.....	2								
Unclassified ²	17								
FIRE CLAY INDUSTRY									
United States, total.....	248	22,206	17,468	1,802	185	3,123	5,670	928	1,188
Less than 0.10.....	3	27	18	12	1	28	36	6	...
0.10-0.19.....	5	175	132	27	8	50	77	39	16
0.20-0.39.....	14	998	909	211	21	302	557	105	9
0.40-0.59.....	19	2,477	2,141	353	30	533	1,075	181	65
0.60-0.79.....	13	783	628	88	12	170	304	48	12
0.80-0.99.....	9	950	804	142	11	216	431	61	...
1.00-1.49.....	18	3,369	2,671	206	23	409	723	98	351
1.50-1.99.....	9	1,629	1,364	99	6	190	356	44	245
2.00-2.99.....	17	1,572	1,347	91	7	149	281	19	77
3.00-6.99.....	11	535	490	36	4	65	99	24	31
7.00 and over.....	1								
Unclassified ²	129	9,691	6,964	537	62	1,011	1,731	303	382
Geographic Division									
Middle Atlantic, total.....	66	6,128	5,165	651	70	1,117	2,065	305	160
Less than 0.10.....	2	531	450	99	17	164	301	92	...
0.10-0.19.....	4								
0.20-0.39.....	5								
0.40-0.59.....	12	1,570	1,395	236	12	366	775	60	27
0.60-0.79.....	8								
0.80-0.99.....	2								
1.00-1.49.....	4	1,554	1,406	115	16	211	372	64	20
1.50-1.99.....	3								
2.00-2.99.....	1								
3.00-6.99.....	1	386	298	33	2	59	98	6	...
Unclassified ²	24								
Unclassified ²	24	2,087	1,616	168	23	317	519	83	96

See footnotes at end of table.

Table 8.—GENERAL STATISTICS FOR SELECTED CLAY, CERAMIC, AND REFRACTORY MINERALS ESTABLISHMENTS CLASSIFIED BY OUTPUT PER MAN-HOUR, BY GEOGRAPHIC DIVISIONS, AND BY TYPE OF OPERATION: 1954—Continued

(For explanation of column captions, see INTRODUCTION)

Tons per man-hour ¹	Number of establishments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
Geographic Division—Continued									
Fire Clay Industry—Continued									
North Central, total.....	102	11,735	8,880	681	67	* 1,287	2,294	379	644
0.10-0.19.....	1	1,048	883	117	19	186	325	130	41
0.20-0.39.....	4								
0.40-0.59.....	5								
0.60-0.79.....	1	222	175	15	1	32	57	1	8
0.80-0.99.....	2								
1.00-1.49.....	9								
1.50-1.99.....	5	1,685	1,136	138	12	272	493	60	300
2.00-2.99.....	8	1,110	931	47	1	103	177	...	(D)
3.00-6.99.....	5	1,214	1,026	60	4	115	223	16	(D)
Unclassified ²	62	322	301	10	2	21	35	5	(D)
South, total.....	33	6,134	4,428	294	28	558	984	167	157
Less than 0.10.....	1	467	419	136	11	166	298	47	5
0.20-0.39.....	3								
0.40-0.59.....	1								
0.60-0.79.....	3	749	613	107	13	154	318	66	...
0.80-0.99.....	4								
1.00-1.49.....	3								
1.50-1.99.....	5	668	564	40	1	84	143	5	14
2.00-2.99.....	5	237	220	23	2	19	32	2	...
3.00-6.99.....	3	120	114	15	2	28	42	19	27
Unclassified ²	10	323	180	18	4	32	42	16	46
Mountain, total.....	25	749	549	76	4	138	219	13	39
0.20-0.39.....	2	94	86	19	2	39	61	4	...
0.40-0.59.....	1								
0.60-0.79.....	1								
0.80-0.99.....	1	191	176	17	2	34	60	9	21
1.00-1.49.....	2								
2.00-2.99.....	1								
3.00-6.99.....	2	89	70	10	...	14	21	...	...
7.00 and over.....	1								
Unclassified ²	14								
Pacific, total.....	22	375	217	30	...	51	77	...	18
1.50-1.99.....	1	258	241	28	4	45	108	39	188
2.00-2.99.....	2								
Unclassified ²	19								
Type of Operation		772	523	27	7	53	109	37	65
Mines without preparation plants, total..	187	12,128	9,647	1,121	113	1,799	3,345	532	667
Less than 0.10.....	3	27	18	12	1	28	36	6	...
0.10-0.19.....	3								
0.20-0.39.....	12								
0.40-0.59.....	14	1,016	927	211	19	308	572	87	{
0.60-0.79.....	9								
0.80-0.99.....	6								
1.00-1.49.....	9	1,559	1,348	264	16	386	806	73	24
1.50-1.99.....	5	464	379	61	8	115	220	33	12
2.00-2.99.....	6	666	557	99	11	136	290	61	...
3.00-6.99.....	9	401	353	30	13	50	74	59	41
7.00 and over.....	5	420	371	44	5	79	145	39	245
Unclassified ²	17	1,572	1,347	91	7	149	281	19	77
Unclassified ²	9	461	416	27	2	49	75	5	(D)
Unclassified ²	100	5,542	3,931	282	31	499	846	150	220
Mines with preparation plants, total.....	61	10,078	7,821	681	72	1,324	2,325	396	521
Less than 0.10.....	...	...	...	...	...	...	...	...	...
0.10-0.19.....	2								
0.20-0.39.....	2								
0.40-0.59.....	5	157	114	27	10	44	62	57	{
0.60-0.79.....	4								
0.80-0.99.....	3								
1.00-1.49.....	9	918	793	89	14	147	269	108	41
1.50-1.99.....	4	319	249	27	4	55	84	15	...
2.00-2.99.....	3	284	247	43	...	80	141	...	...
3.00-6.99.....	9	2,968	2,318	176	10	359	649	39	310
7.00 and over.....	4	1,209	993	55	1	111	211	5	...
Unclassified ²	2	74	74	9	2	16	24	19	(D)
Unclassified ²	1								
Unclassified ²	29								

See footnotes at end of table.

Table 8.—GENERAL STATISTICS FOR SELECTED CLAY, CERAMIC, AND REFRACTORY MINERALS ESTABLISHMENTS CLASSIFIED BY OUTPUT PER MAN-HOUR, BY GEOGRAPHIC DIVISIONS, AND BY TYPE OF OPERATION: 1954—Continued

(For explanation of column captions, see INTRODUCTION)

Tons per man-hour ¹	Number of establishments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
FULLER'S EARTH INDUSTRY									
United States, total.....	16	6,012	4,179	510	54	1,109	1,381	363	497
0.10-0.19.....	1	810	490	69	6	172	187	26	127
0.20-0.39.....	1								
0.40-0.59.....	4								
1.00-1.49.....	1	5,202	3,689	441	48	937	1,194	337	370
Unclassified ²	9								
South Atlantic, total.....	6	5,362	3,679	447	48	981	1,212	340	360
0.10-0.19.....	1	5,362	3,679	447	48	981	1,212	340	360
0.40-0.59.....	1								
Unclassified ²	4								
South Central and West, total.....	10	650	500	63	6	128	169	23	137
0.20-0.39.....	1	650	500	63	6	128	169	23	137
0.40-0.59.....	3								
1.00-1.49.....	1								
Unclassified ²	5								
KAOLIN AND BALL CLAY INDUSTRY									
United States, total.....	54	31,892	25,249	2,820	328	6,159	8,115	1,828	4,291
Less than 0.10.....	1	572	525	41	3	75	87	18	46
0.10-0.19.....	3								
0.20-0.39.....	5								
0.40-0.59.....	4	9,583	8,150	884	152	1,909	2,524	824	1,326
0.60-0.79.....	4	4,155	3,675	317	33	692	981	200	1,074
0.80-0.99.....	4	1,727	1,238	108	11	208	251	60	47
1.50-1.99.....	2	1,137	907	52	11	102	149	64	22
3.00-6.99.....	1								
Unclassified ²	1								
Unclassified ²	33	14,718	10,754	1,418	118	3,173	4,123	662	1,776
CLAY, CERAMIC, AND REFRACTORY MINERALS, N.E.C., INDUSTRY									
United States, total.....	183	13,504	9,783	1,053	98	2,174	3,412	411	1,717
Less than 0.60.....	24	2,393	1,777	255	26	533	761	154	23
0.60-0.99.....	8	1,024	784	106	10	217	314	30	87
1.00-1.99.....	9	584	417	76	10	121	170	23	43
2.00-2.99.....	13	480	382	49	2	96	201	3	24
3.00-3.99.....	6	1,507	1,180	84	3	196	298	10	170
4.00-4.99.....	5	364	230	30	2	70	93	9	21
5.00-5.99.....	7	867	631	89	7	190	303	28	51
6.00-6.99.....	3	47	36	16	5	28	29	10	...
7.00-8.99.....	3	183	155	7	...	13	29	...	...
9.00-11.99.....	5	76	65	7	...	15	19	...	...
Unclassified ²	100	5,979	4,126	334	33	695	1,195	144	1,298
Geographic Division									
Northeast, total.....	30	2,106	1,480	154	22	316	541	84	23
Less than 0.60.....	5	515	379	60	15	121	187	61	...
0.60-0.99.....	1								
1.00-1.99.....	2								
2.00-2.99.....	4	238	202	15	...	30	52	...	...
3.00-3.99.....	1	513	372	32	...	65	130	...	14
4.00-4.99.....	...								
5.00-5.99.....	1								
6.00-6.99.....	1	840	527	47	7	100	172	23	9
7.00-8.99.....	1								
Unclassified ²	14								
East North Central, total.....	29	1,163	753	87	...	169	290	...	95
Less than 0.60.....	6	202	126	20	...	41	53	...	8
1.00-1.99.....	2	184	151	20	...	33	55	...	8
2.00-2.99.....	2								
3.00-3.99.....	1								
4.00-4.99.....	2	129	114	11	...	20	35	...	1
5.00-5.99.....	1								
9.00-11.99.....	1								
Unclassified ²	14	648	362	36	...	75	147	...	78

See footnotes at end of table.

Table 8.—GENERAL STATISTICS FOR SELECTED CLAY, CERAMIC, AND REFRACTORY MINERALS ESTABLISHMENTS CLASSIFIED BY OUTPUT PER MAN-HOUR, BY GEOGRAPHIC DIVISIONS, AND BY TYPE OF OPERATION: 1954—Continued

(For explanation of column captions, see INTRODUCTION)

Tons per man-hour ¹	Number of establish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
CLAY, CERAMIC, AND REFRACTORY MINERALS, N.E.C., INDUSTRY—Continued									
Geographic Division--Continued									
West North Central, total.....	14	1,636	1,135	106	10	254	443	45	114
Less than 0.60.....	1	212	172	20	2	48	62	3	14
0.60-0.99.....	2								
1.00-1.99.....	1								
2.00-2.99.....	1								
5.00-5.99.....	2	156	108	15	2	35	56	4	17
9.00-11.99.....	1								
Unclassified ²	6								
Unclassified ²	6	1,268	855	71	6	171	325	38	83
South Atlantic, total.....	19	3,293	2,538	291	34	610	728	162	119
Less than 0.60.....	6	1,406	1,034	118	13	280	312	102	3
0.60-0.99.....	2								
1.00-1.99.....	1								
3.00-3.99.....	2								
4.00-4.99.....	1	648	481	62	9	137	143	29	15
5.00-5.99.....	1								
6.00-6.99.....	1								
Unclassified ²	5								
Unclassified ²	5	458	420	25	2	38	50	10	2
East South Central, total.....	13	841	577	101	12	200	300	36	28
0.60-0.99.....	1	231	173	46	5	86	113	12	8
1.00-1.99.....	1								
2.00-2.99.....	2								
4.00-4.99.....	1								
5.00-5.99.....	1	162	138	26	1	53	94	6	...
6.00-6.99.....	1								
9.00-11.99.....	1								
Unclassified ²	5								
Unclassified ²	5	448	266	29	6	61	93	18	20
West South Central, total.....	16	2,284	1,803	151	13	337	463	59	387
Less than 0.60.....	1	759	573	54	2	121	155	9	189
2.00-2.99.....	1								
3.00-3.99.....	1								
4.00-4.99.....	1								
5.00-5.99.....	1	483	338	28	3	69	97	9	6
7.00-8.99.....	2								
9.00-11.99.....	1								
Unclassified ²	8								
Unclassified ²	8	1,042	892	69	8	147	211	41	192
Mountain, total.....	27	537	357	33	1	60	148	1	80
0.60-0.99.....	1	139	115	18	1	34	98	1	25
1.00-1.99.....	2								
2.00-2.99.....	3								
Unclassified ²	21								
Unclassified ²	21	398	242	15	...	26	50	...	55
Pacific, total.....	35	1,644	1,140	130	6	228	499	24	871
Less than 0.60.....	5	366	279	64	...	103	246	...	12
0.60-0.99.....	1								
3.00-3.99.....	1								
9.00-11.99.....	1								
Unclassified ²	27	877	562	42	4	77	147	14	859
Type of Operation									
Mines without preparation plants, total..	93	2,816	2,112	272	8	499	930	22	151
Less than 0.60.....	8	503	471	72	1	111	258	5	(D)
0.60-0.99.....	3								
1.00-1.99.....	2								
2.00-2.99.....	8								
3.00-3.99.....	1	306	214	21	2	46	100	6	(D)
4.00-4.99.....	2								
5.00-5.99.....	3								
6.00-6.99.....	2								
7.00-8.99.....	1	108	93	11	...	22	29
9.00-11.99.....	4								
Unclassified ²	59								
Unclassified ²	59	1,393	906	81	4	148	270	8	99

See footnotes at end of table.

MINERAL INDUSTRIES--INDUSTRY STATISTICS

Table 8.—GENERAL STATISTICS FOR SELECTED CLAY, CERAMIC, AND REFRACTORY MINERALS ESTABLISHMENTS CLASSIFIED BY OUTPUT PER MAN-HOUR, BY GEOGRAPHIC DIVISIONS, AND BY TYPE OF OPERATION: 1954--Continued

(For explanation of column captions, see INTRODUCTION)

Tons per man-hour ¹	Number of establishments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
CLAY, CERAMIC, AND REFRACTORY MINERALS, N.E.C., INDUSTRY--Continued									
Type of Operation--Continued									
Mines with preparation plants, total.....	90	10,688	7,671	781	90	1,675	2,482	389	1,566
Less than 0.60.....	16	1,890	1,306	183	25	422	503	149	(D)
0.60-0.99.....	5	898	676	73	10	155	236	30	} 117
1.00-1.99.....	7	568	402	73	10	116	165	23	
2.00-2.99.....	5	333	264	25	...	47	118	...	...
3.00-3.99.....	5	1,311	1,007	72	3	170	233	10	170
4.00-4.99.....	3	254	189	21	2	50	58	9	(D)
5.00-5.99.....	4	650	444	62	6	134	196	22	(D)
6.00-6.99.....	1	} 198	163	19	5	34	48	10	...
7.00-8.99.....	2								
9.00-11.99.....	1								
Unclassified ²	41	4,586	3,220	253	29	547	925	136	1,199

D Withheld to avoid approximately disclosing figures of individual companies.

¹Represents short tons (long tons for feldspar) of the primary products of the specified industry.²Principally, in terms of value of shipments and employment, represents reports indicating that a substantial proportion of the production was performed by contractors, for whom employee man-hours are not included above. This group also includes for the Fire Clay, Feldspar, and Clay, Ceramic, and Refractory Minerals, N.E.C., Industries, a number of reports for small establishments which indicated that a significant portion of the work was performed by proprietors or partners; man-hours for these proprietors are not included in this table. Significant ratios of output per man-hour could not be computed for these groups.

Table 9.—GENERAL STATISTICS FOR CLAY, CERAMIC, AND REFRACTORY MINERALS ESTABLISHMENTS CLASSIFIED BY RATIO OF WAGES AND SALARIES TO VALUE ADDED IN MINING, BY GEOGRAPHIC DIVISIONS: 1954

(For explanation of column captions, see INTRODUCTION)

Industry, geographic division, and ratio of wages and salaries to value added in mining	Number of establish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expendi- tures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
BENTONITE INDUSTRY									
United States, total.....	43	21,830	16,350	578	56	1,340	1,920	215	488
Less than 0.30.....	22	20,049	15,210	466	47	1,088	1,565	189	441
0.30-0.39.....	6	1,225	825	88	5	203	273	17	27
0.50-0.59.....	1	556	315	24	4	49	82	9	20
0.60-0.69.....	2								
1.00 and over.....	6								
Unclassified ¹	6								
West North Central and South Central, total.....	19	8,108	5,357	323	27	756	1,007	99	218
Less than 0.30.....	13	7,601	5,126	289	25	674	935	94	(D)
0.30-0.39.....	2	507	231	34	2	82	72	5	(D)
0.60-0.69.....	2								
Unclassified ¹	2								
West, total.....	24	13,722	10,993	255	29	584	913	116	270
Less than 0.30.....	9	12,448	10,084	177	22	414	630	95	(D)
0.30-0.39.....	4	1,274	909	78	7	170	283	21	(D)
0.50-0.59.....	1								
1.00 and over.....	6								
Unclassified ¹	4								
FIRE CLAY INDUSTRY									
United States, total.....	248	22,206	17,468	1,802	185	3,123	5,670	928	1,188
Less than 0.30.....	63	10,343	8,579	377	17	714	1,293	66	497
0.30-0.39.....	23	1,380	1,069	102	20	178	283	95	74
0.40-0.49.....	21	1,617	1,267	162	8	298	524	58	161
0.50-0.59.....	31	2,821	2,287	321	47	552	992	229	106
0.60-0.69.....	12	732	571	105	9	168	323	49	27
0.70-0.79.....	19	1,528	1,012	191	19	339	642	111	226
0.80-0.89.....	14	1,834	1,485	372	31	578	1,099	148	(D)
0.90-0.99.....	5	359	276	68	7	117	232	31	(D)
1.00 and over.....	24	450	289	104	27	179	282	141	37
Unclassified ¹	36	1,142	633	...	...	...	...	...	43
Middle Atlantic, total.....	66	6,128	5,165	651	70	1,117	2,065	305	160
Less than 0.30.....	13	2,663	2,353	88	7	150	265	24	84
0.30-0.39.....	5	200	135	19	2	28	45	3	3
0.40-0.49.....	5	176	143	24	2	40	59	6	(D)
0.50-0.59.....	7	861	781	117	12	188	387	42	24
0.60-0.69.....	4	363	309	61	2	92	187	14	...
0.70-0.79.....	6	338	285	55	10	96	175	41	12
0.80-0.89.....	7	988	762	166	13	320	583	65	(D)
0.90-0.99.....	2	539	397	121	22	203	364	110	25
1.00 and over.....	15								
Unclassified ¹	2								
North Central, total.....	102	11,735	8,880	681	67	1,287	2,294	379	644
Less than 0.30.....	31	6,195	4,991	217	3	437	802	21	366
0.30-0.39.....	13	1,033	820	62	17	115	203	87	54
0.40-0.49.....	7	995	763	87	3	172	318	39	113
0.50-0.59.....	20	1,855	1,410	185	34	331	555	185	58
0.60-0.69.....	3	1,040	547	119	4	218	394	16	31
0.70-0.79.....	7								
0.80-0.89.....	1								
0.90-0.99.....	2								
1.00 and over.....	3	77	33	11	6	14	22	31	(D)
Unclassified ¹	15	540	316	...	...	...	...	...	(D)
South, total.....	33	2,564	2,110	339	33	483	875	155	92
Less than 0.30.....	9	1,157	947	62	4	109	194	8	23
0.30-0.39.....	3	428	321	57	8	94	129	36	61
0.40-0.49.....	2								
0.50-0.59.....	2								
0.60-0.69.....	2								
0.70-0.79.....	4	132	117	19	4	29	57	30	(D)
0.80-0.89.....	5	847	725	201	17	251	495	81	(D)
0.90-0.99.....	1								
1.00 and over.....	1								
Unclassified ¹	4								

See footnotes at end of table.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 9.—GENERAL STATISTICS FOR CLAY, CERAMIC, AND REFRACTORY MINERALS ESTABLISHMENTS CLASSIFIED BY RATIO OF WAGES AND SALARIES TO VALUE ADDED IN MINING, BY GEOGRAPHIC DIVISIONS: 1954—Continued

(For explanation of column captions, see INTRODUCTION)

Industry, geographic division, and ratio of wages and salaries to value added in mining	Number of establish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expendi- tures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
FIRE CLAY INDUSTRY—Continued									
Mountain, total.....	25	749	549	76	4	138	219	13	39
Less than 0.30.....	2	128	106	9	2	12	16	9	(D)
0.30-0.39.....	2								
0.40-0.49.....	5	234	183	28	...	49	81	...	(D)
0.50-0.59.....	2								
0.60-0.69.....	2	81	72	13	1	23	38	2	...
0.70-0.79.....	1								
0.80-0.89.....	1	126	94	26	1	54	84	2	...
1.00 and over.....	4								
Unclassified ¹	6	180	94	...	...	...	...	...	...
Pacific, total.....	22	1,030	764	55	11	98	217	76	253
Less than 0.30.....	8	652	580	55	11	98	217	76	231
0.40-0.49.....	2								
0.60-0.69.....	1								
0.70-0.79.....	1								
1.00 and over.....	1	378	184	...	...	...	...	...	22
Unclassified ¹	9								
FULLER'S EARTH INDUSTRY									
United States, total.....	16	6,012	4,179	510	54	1,109	1,381	363	497
Less than 0.30.....	2	132	114	8	...	14	28	...	...
0.30-0.39.....	5	3,912	2,865	265	46	575	774	288	284
0.50-0.59.....	4	1,558	1,036	196	3	407	464	58	146
0.70-0.79.....	2	382	150	38	4	105	98	15	35
1.00 and over.....	2	14	12	3	1	8	17	2	32
Unclassified ¹	1	14	2	...	...	...	...	...	...
South Atlantic, total.....	6	5,362	3,679	447	48	981	1,212	340	360
0.30-0.39.....	2	5,362	3,679	447	48	981	1,212	340	360
0.50-0.59.....	1								
0.70-0.79.....	2								
Unclassified ¹	1								
South Central and West, total.....	10	650	500	63	6	128	169	23	137
Less than 0.30.....	2	650	500	63	6	128	169	23	137
0.30-0.39.....	3								
0.50-0.59.....	3								
1.00 and over.....	2								
KAOLIN AND BALL CLAY INDUSTRY									
United States, total.....	54	31,892	25,249	2,820	328	6,159	8,115	1,828	4,291
Less than 0.30.....	14	6,086	4,685	299	22	614	948	84	130
0.30-0.39.....	12	12,059	10,171	910	129	1,973	2,787	739	1,710
0.40-0.49.....	4	8,295	6,753	773	120	1,763	2,366	690	1,609
0.50-0.59.....	8	3,655	2,542	452	42	992	1,183	238	551
0.60-0.69.....	4	1,423	978	311	11	666	670	65	128
0.70-0.79.....	2								
0.80-0.89.....	2								
1.00 and over.....	4								
Unclassified ¹	4	319	77	75	4	151	161	12	163
Unclassified ¹	4	55	43	...	...	...	...	...	...
Middle Atlantic and South Atlantic, total..	29	25,517	20,355	2,436	285	5,351	6,943	1,581	4,135
Less than 0.30.....	7	2,112	1,425	106	10	211	270	37	60
0.30-0.39.....	6	10,813	9,399	821	125	1,787	2,528	716	1,681
0.40-0.49.....	2	10,930	8,528	1,136	135	2,555	3,335	763	2,106
0.50-0.59.....	5								
0.60-0.69.....	2	1,345	928	299	11	649	652	53	125
0.70-0.79.....	2								
0.80-0.89.....	2								
1.00 and over.....	3								
South Central, total.....	16	4,408	3,268	289	32	631	797	203	150
Less than 0.30.....	4	4,408	3,268	289	32	631	797	203	150
0.30-0.39.....	5								
0.40-0.49.....	2								
0.50-0.59.....	2								
0.60-0.69.....	2								
1.00 and over.....	1								

See footnotes at end of table.

Table 9.—GENERAL STATISTICS FOR CLAY, CERAMIC, AND REFRACTORY MINERALS ESTABLISHMENTS CLASSIFIED BY RATIO OF WAGES AND SALARIES TO VALUE ADDED IN MINING, BY GEOGRAPHIC DIVISIONS: 1954—Continued

(For explanation of column captions, see INTRODUCTION)

Industry, geographic division, and ratio of wages and salaries to value added in mining	Number of establish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expendi- tures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
KAOLIN AND BALL CLAY INDUSTRY—Continued									
West, total.....	9	1,967	1,626	95	11	177	375	44	6
Less than 0.30.....	3	1,912	1,583	95	11	177	375	44	6
0.30-0.39.....	1								
0.50-0.59.....	1								
Unclassified ¹	4	55	43	...	...	...	...	...	...
FELDSPAR INDUSTRY									
United States, total.....	84	6,669	4,048	579	37	1,235	1,523	199	389
Less than 0.30.....	11	2,205	1,440	98	7	205	270	48	42
0.30-0.39.....	5	387	190	31	...	62	67	...	7
0.40-0.49.....	4	467	297	51	1	116	126	4	12
0.50-0.59.....	5	702	506	88	6	188	234	35	32
0.60-0.69.....	9	2,093	1,104	222	13	472	609	77	114
0.70-0.79.....	4	153	119	26	5	54	66	19	3
1.00 and over.....	13	332	112	63	5	138	151	16	171
Unclassified ¹	33	330	280	...	...	...	...	...	8
New England, total.....	14	1,207	858	139	17	312	419	87	55
0.50-0.59.....	2	1,162	834	128	16	289	391	87	52
0.60-0.69.....	3								
0.70-0.79.....	2								
1.00 and over.....	4	36	16	11	1	23	28	...	3
Unclassified ¹	3	9	8	...	...	...	...	...	...
West North Central, total.....	14	800	502	72	2	180	218	8	49
Less than 0.30.....	1	800	502	72	2	180	218	8	49
0.40-0.49.....	1								
0.60-0.69.....	1								
1.00 and over.....	1								
Unclassified ¹	10								
South, total.....	34	3,867	2,206	330	11	652	754	64	274
Less than 0.30.....	5	2,061	1,356	120	7	232	279	48	39
0.30-0.39.....	3								
0.40-0.49.....	3								
0.50-0.59.....	2	1,318	586	162	...	315	366	...	65
0.60-0.69.....	4								
0.70-0.79.....	2								
1.00 and over.....	8	488	264	48	4	105	109	16	170
Unclassified ¹	7								
West, total.....	22	795	482	38	7	91	132	40	11
Less than 0.30.....	5	280	199	11	...	24	33	...	4
0.30-0.39.....	2	484	255	27	7	67	99	40	6
0.50-0.59.....	1								
0.60-0.69.....	1								
Unclassified ¹	13	31	28	...	...	...	...	...	1
MAGNESITE AND BRUCITE INDUSTRY									
United States, total.....	4	1,655	1,372	121	11	237	469	70	17
Less than 0.30.....	2	1,655	1,372	121	11	237	469	70	17
0.30-0.39.....	1								
0.50-0.59.....	1								
CLAY, CERAMIC, AND REFRACTORY MINERALS, N.E.C., INDUSTRY									
United States, total.....	183	13,504	9,783	1,053	98	2,174	3,412	411	1,717
Less than 0.30.....	30	3,782	3,224	192	6	373	587	26	488
0.30-0.39.....	23	3,494	2,583	235	27	576	835	123	144
0.40-0.49.....	23	3,296	2,200	274	34	541	820	150	172
0.50-0.59.....	15	636	380	67	6	124	197	16	47
0.60-0.69.....	10	591	458	72	13	164	237	61	6
0.70-0.79.....	5	498	417	89	...	150	319	...	19
0.80-0.89.....	5	260	173	40	2	81	154	7	20
0.90-0.99.....	3								
1.00 and over.....	29								
Unclassified ¹	40	532	190	...	...	...	...	...	800

See footnotes at end of table.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 9.—GENERAL STATISTICS FOR CLAY, CERAMIC, AND REFRACTORY MINERALS ESTABLISHMENTS CLASSIFIED BY RATIO OF WAGES AND SALARIES TO VALUE ADDED IN MINING, BY GEOGRAPHIC DIVISIONS: 1954—Continued

(For explanation of column captions, see INTRODUCTION)

Industry, geographic division, and ratio of wages and salaries to value added in mining	Number of establish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expendi- tures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
CLAY, CERAMIC, AND REFRACTORY MINERALS, N.E.C., INDUSTRY—Continued									
Northeast, total.....	30	2,106	1,480	154	22	316	541	84	23
Less than 0.30.....	4	1,114	778	49	7	115	182	23	3
0.30-0.39.....	6								
0.40-0.49.....	2								
0.50-0.59.....	6	723	546	77	13	144	256	52	6
0.60-0.69.....	3								
0.70-0.79.....	1								
0.80-0.89.....	1	211	123	28	2	57	103	9	14
1.00 and over.....	3								
Unclassified ¹	4								
East North Central, total.....	29	1,163	753	87	...	169	290	...	95
Less than 0.30.....	9	326	256	24	...	41	58	...	40
0.30-0.39.....	4	244	196	21	...	44	69	...	8
0.40-0.49.....	3	533	262	35	...	72	141	...	46
0.50-0.59.....	3								
0.80-0.89.....	1								
1.00 and over.....	3	35	22	7	...	12	22	...	1
Unclassified ¹	6	25	17	...	...	...	...	...	...
West North Central, total.....	14	1,636	1,135	106	10	254	443	45	114
Less than 0.30.....	1	812	633	45	2	107	218	15	76
0.30-0.39.....	3								
0.40-0.49.....	4								
0.50-0.59.....	1	669	397	33	6	90	146	26	32
0.60-0.69.....	1								
0.80-0.89.....	1								
1.00 and over.....	3	155	105	28	2	57	79	4	6
South Atlantic, total.....	19	3,293	2,538	291	34	610	728	162	119
Less than 0.30.....	3	841	747	38	5	81	84	20	2
0.30-0.39.....	4	814	658	78	6	195	208	38	15
0.40-0.49.....	6	1,461	1,034	144	18	271	362	94	101
0.50-0.59.....	2	177	99	31	5	63	74	10	1
0.60-0.69.....	1								
0.80-0.89.....	1								
0.90-0.99.....	1	1	1	1	1	1	1	1	1
1.00 and over.....	1								
East South Central, total.....	13	841	577	101	12	200	300	36	28
Less than 0.30.....	3	87	77	8	...	13	13	...	9
0.30-0.39.....	1	548	387	59	10	117	165	28	19
0.40-0.49.....	1								
0.60-0.69.....	1								
0.70-0.79.....	2	206	113	34	2	70	122	8	...
0.90-0.99.....	1								
1.00 and over.....	3								
Unclassified ¹	1	1	1	1	1	1	1	1	1
West South Central, total.....	16	2,284	1,803	151	13	337	463	59	387
Less than 0.30.....	3	1,071	1,018	58	...	108	168	...	338
0.30-0.39.....	2	1,103	742	83	13	208	263	59	37
0.40-0.49.....	2								
0.50-0.59.....	1								
0.60-0.69.....	2	110	43	10	...	21	32	...	12
0.70-0.79.....	1								
0.90-0.99.....	1								
1.00 and over.....	1	3	3	3	3	3	3	3	3
Unclassified ¹	3								
Mountain, total.....	27	537	357	33	1	60	148	1	80
Less than 0.30.....	3	252	241	22	1	42	81	1	71
0.30-0.39.....	1								
0.40-0.49.....	2								
0.50-0.59.....	2	58	35	11	...	18	67	...	9
1.00 and over.....	6								
Unclassified ¹	13								
Pacific, total.....	35	1,644	1,140	130	6	228	499	24	871
Less than 0.30.....	4	655	478	27	1	56	117	6	53
0.30-0.39.....	2	436	325	29	2	54	118	10	...
0.40-0.49.....	3								
0.60-0.69.....	2								
0.70-0.79.....	1	312	278	57	1	84	213	1	6
0.80-0.89.....	1								
1.00 and over.....	9								
Unclassified ¹	13	83	11	17	2	34	51	7	12
		158	48	...	...	...	...	...	800

D Withheld to avoid approximately disclosing figures for individual companies.

¹Represents establishments reporting less than \$500 for wages and salaries.

Table 10.—HORSEPOWER OF POWER EQUIPMENT USED IN THE CLAY, CERAMIC, AND REFRACTORY MINERALS INDUSTRIES,
BY GEOGRAPHIC DIVISIONS: 1954

(For explanation of column captions, see INTRODUCTION)

Industry and geographic division	Aggregate horsepower per production worker	Aggregate horsepower (prime movers and electric motors driven by purchased energy)					Prime movers (horsepower)			
		Total	Loading equip-ment	Transportation equipment		All other equip-ment	Total	By type of equipment		
				Highway type	Other			Loading equip-ment	Transportation equipment	
									Highway type	Other
BENTONITE INDUSTRY										
United States, total.....	63	36,354	6,709	11,122	343	18,180	20,187	6,587	11,122	343
West North Central and South Central.....	55	17,799	2,035	7,309	92	8,363	9,597	2,028	7,309	92
West.....	73	18,555	4,674	3,813	251	9,817	10,590	4,559	3,813	251
FIRE CLAY INDUSTRY										
United States, total.....	56	100,500	35,439	28,406	5,861	30,794	82,097	34,256	28,406	4,180
Middle Atlantic.....	38	24,609	6,821	5,862	2,677	9,249	18,545	6,491	5,862	1,767
North Central.....	78	52,838	22,079	12,083	2,064	16,612	43,647	21,662	12,083	1,433
South.....	35	11,814	3,551	5,031	170	3,062	9,333	3,184	5,031	160
Mountain.....	37	2,786	944	1,251	81	510	2,573	924	1,251	70
Pacific.....	154	8,453	2,044	4,179	869	1,361	7,999	1,995	4,179	750
FULLER'S EARTH INDUSTRY										
United States, total.....	46	23,231	5,692	4,378	45	13,116	11,862	4,904	4,378	45
South Atlantic.....	46	20,607	4,801	3,685	...	12,121	9,708	4,018	3,685	...
South Central and West.....	42	2,624	891	693	45	995	2,154	886	693	45
KAOLIN AND BALL CLAY INDUSTRY										
United States, total.....	34	97,253	21,632	35,467	6,974	33,180	64,460	20,738	35,467	4,198
Middle Atlantic and South Atlantic.....	33	81,429	16,679	28,215	6,891	29,644	51,299	15,830	28,215	4,115
South Central.....	49	14,177	4,609	6,166	...	3,402	11,520	4,564	6,166	...
West.....	17	1,647	344	1,086	83	134	1,641	344	1,086	83
FELDSPAR INDUSTRY										
United States, total.....	52	29,890	3,839	10,973	499	14,579	18,433	3,434	10,973	399
New England.....	58	8,008	1,154	2,428	259	4,167	5,385	854	2,428	159
West North Central.....	90	6,460	638	3,672	80	2,070	5,000	638	3,672	80
South.....	32	10,440	1,517	1,808	160	6,955	4,253	1,457	1,808	160
West.....	131	4,982	530	3,065	...	1,387	3,795	485	3,065	...
MAGNESITE AND BRUCITE INDUSTRY										
United States.....	115	13,857	2,392	5,930	2,098	3,437	10,420	2,392	5,930	2,098
CLAY, CERAMIC, AND REFRACTORY MINERALS, N.E.C., INDUSTRY										
United States, total.....	57	59,890	17,972	16,200	4,502	21,216	40,599	17,233	16,200	3,152
Northeast.....	72	11,087	4,055	2,485	200	4,347	7,540	3,707	2,485	30
East North Central.....	89	7,782	3,053	940	1,367	2,422	4,901	2,927	940	767
West North Central.....	52	5,517	1,825	1,609	100	1,983	3,659	1,825	1,609	...
South Atlantic.....	53	15,380	2,739	5,031	1,920	5,690	10,845	2,574	5,031	1,920
East South Central.....	30	3,079	1,081	319	372	1,307	1,558	981	319	142
West South Central.....	35	5,356	1,562	1,686	293	1,815	3,586	1,562	1,686	293
Mountain.....	106	3,493	1,643	1,790	...	60	3,483	1,643	1,790	...
Pacific.....	63	8,196	2,014	2,340	250	3,592	5,027	2,014	2,340	...

Table 10.—HORSEPOWER OF POWER EQUIPMENT USED IN THE CLAY, CERAMIC, AND REFRACTORY MINERALS INDUSTRIES,
BY GEOGRAPHIC DIVISIONS: 1954—Continued

(For explanation of column captions, see INTRODUCTION)

Industry and geographic division	Prime movers (horsepower)—Continued			Electric motors (horsepower)					
	By type of equip- ment—Con- tinued	By use		Total	By type of equipment			By type of energy used	
		Driving generators	Not driving generators		Loading equip- ment	Transpor- tation equip- ment	All other equip- ment	Driven by purchased energy	Driven by energy generated and used at same estab- lishment
BENTONITE INDUSTRY									
United States, total.....	2,135	...	20,187	16,167	122	...	16,045	16,167	...
West North Central and South Central.....	168	...	9,597	8,202	7	...	8,195	8,202	...
West.....	1,967	...	10,590	7,965	115	...	7,850	7,965	...
FIRE CLAY INDUSTRY									
United States, total.....	15,255	1,334	80,763	18,646	1,204	1,742	15,700	18,403	243
Middle Atlantic.....	4,425	428	18,117	6,164	330	910	4,924	6,064	100
North Central.....	8,469	686	42,961	9,191	417	631	8,143	9,191	...
South.....	958	...	9,333	2,481	367	10	2,104	2,481	...
Mountain.....	328	...	2,573	213	20	11	182	213	...
Pacific.....	1,075	220	7,779	597	70	180	347	454	143
FULLER'S EARTH INDUSTRY									
United States, total.....	2,535	...	11,862	11,369	788	...	10,581	11,369	...
South Atlantic.....	2,005	...	9,708	10,899	783	...	10,116	10,899	...
South Central and West.....	530	...	2,154	470	5	...	465	470	...
KAOLIN AND BALL CLAY INDUSTRY									
United States, total.....	4,057	550	63,910	33,191	894	2,776	29,521	32,793	398
Middle Atlantic and South Atlantic.....	3,139	550	50,749	30,528	849	2,776	26,903	30,130	398
South Central.....	790	...	11,520	2,657	45	...	2,612	2,657	...
West.....	128	...	1,641	6	...	...	6	6	...
FELDSPAR INDUSTRY									
United States, total.....	3,627	195	18,238	11,457	405	100	10,952	11,457	...
New England.....	1,944	135	5,250	2,623	300	100	2,223	2,623	...
West North Central.....	610	60	4,940	1,460	...	...	1,460	1,460	...
South.....	828	...	4,253	6,187	60	...	6,127	6,187	...
West.....	245	...	3,795	1,187	45	...	1,142	1,187	...
MAGNESITE AND BRUCITE INDUSTRY									
United States.....	...	...	10,420	3,437	...	...	3,437	3,437	...
CLAY, CERAMIC, AND REFRACTORY MINERALS, N.E.C., INDUSTRY									
United States, total.....	4,014	940	39,659	19,831	739	1,690	17,402	19,291	540
Northeast.....	1,318	...	7,540	3,547	348	170	3,029	3,547	...
East North Central.....	267	...	4,901	2,881	126	600	2,155	2,881	...
West North Central.....	225	...	3,659	1,858	...	100	1,758	1,858	...
South Atlantic.....	1,320	745	10,100	5,075	165	340	4,570	4,535	540
East South Central.....	116	...	1,558	1,521	100	230	1,191	1,521	...
West South Central.....	45	...	3,586	1,770	...	...	1,770	1,770	...
Mountain.....	50	...	3,483	10	...	...	10	10	...
Pacific.....	673	195	4,832	3,169	...	250	2,919	3,169	...

Table 11.—NUMBER OF POWER LOADING MACHINES IN THE CLAY, CERAMIC, AND REFRACTORY MINERALS INDUSTRIES: 1954 AND 1939,
AND BY GEOGRAPHIC DIVISIONS: 1954

Type of loading equipment	Bentonite industry			
	United States		West North Central and South Central	West
	1954	1939		
Surface loading equipment, total.....	62	22	19	43
By kind of power used				
Steam.....	...	...	...	...
Electric and Diesel-electric.....	1	1	...	1
Diesel.....	41	21	8	33
Gasoline and other.....	20	{	11	9
Power shovels, total.....	16	9	4	12
By kind of power used				
Steam.....	...	...	...	...
Electric and Diesel-electric.....	...	...	...	...
Diesel.....	14	9	4	10
Gasoline and other.....	2	{	...	2
By dipper or bucket capacity (cubic yards)				
Less than 3.....	16	9	4	12
3-5 inclusive.....	...	...	...	...
6-12 inclusive.....	...	...	...	...
More than 12.....	...	...	...	...
Dragline excavators, total.....	9	8	6	3
By kind of power used				
Steam.....	...	...	...	...
Electric and Diesel-electric.....	...	1	...	...
Diesel.....	3	7	1	2
Gasoline and other.....	6	{	5	1
By dipper or bucket capacity (cubic yards)				
Less than 3.....	9	7	6	3
3-5 inclusive.....	...	1	...	...
6-12 inclusive.....	...	...	...	...
Scraper loaders, total.....	24	2	2	22
By kind of power used				
Steam.....	...	...	...	...
Electric and Diesel-electric.....	...	...	...	...
Diesel.....	21	2	...	21
Gasoline and other.....	3	{	2	1
By rated horsepower				
Less than 10.....	...	...	...	...
10-25 inclusive.....	...	2	...	...
26-100 inclusive.....	20	...	2	18
More than 100.....	4	...	...	4
Clamshell and orange peel loaders, total.....	1	...	...	1
By kind of power used				
Steam.....	...	...	...	...
Electric and Diesel-electric.....	...	...	...	...
Diesel.....	...	...	...	...
Gasoline and other.....	1	...	...	1
Cranes and hoists, total.....	...	1	...	...
By kind of power used				
Electric and Diesel-electric.....	...	...	...	...
Diesel.....	...	1	...	...
Gasoline and other.....	...	{	...	...
All other types of equipment.....	12	2	7	5
By kind of power used				
Electric and Diesel-electric.....	1	...	...	1
Diesel.....	3	2	3	...
Gasoline and other.....	8	{	4	4
Underground loading equipment, total.....	1	1	...	1
By kind of power used				
Electric and Diesel-electric.....	...	...	...	...
Compressed air.....	...	...	...	...
Diesel.....	...	...	...	...
Gasoline and other.....	1	1	...	1
Shovel loaders requiring a minimum working height of 8 feet or less, total.....	...	...	...	...
By kind of power used				
Electric and Diesel-electric.....	...	...	...	...
Compressed air.....	...	...	...	...
Gasoline and other.....	...	...	...	...
Shovel loaders requiring a minimum working height of more than 8 feet (electric and Diesel-electric).....	...	...	...	...
Scraper loaders (including slushers), total.....	1	...	...	1
By kind of power used				
Electric and Diesel-electric.....	...	...	...	...
Compressed air.....	...	...	...	...
Gasoline and other.....	1	...	...	1
By rated horsepower				
Less than 10.....	...	...	...	...
10-25 inclusive.....	...	...	...	...
26-100 inclusive.....	1	...	...	1
Other types of equipment, total.....	...	1	...	...
By kind of power used				
Electric and Diesel-electric.....	...	...	...	...
Diesel.....	...	...	...	...
Gasoline and other.....	...	1	...	...

Table 11.—NUMBER OF POWER LOADING MACHINES IN THE CLAY, CERAMIC, AND REFRACTORY MINERALS INDUSTRIES: 1954 AND 1939,
AND BY GEOGRAPHIC DIVISIONS: 1954—Continued

Type of loading equipment	Fire clay industry						
	United States		Middle Atlantic	North Central	South	Mountain	Pacific
	1954	1939 ¹					
Surface loading equipment, total.....	392	131	81	224	52	13	22
By kind of power used							
Steam.....	3	33	3	...	...	...	...
Electric and Diesel-electric.....	13	23	5	1	2	1	4
Diesel.....	198	75	35	123	30	2	8
Gasoline and other.....	178	75	38	100	20	10	10
Power shovels, total.....	191	107	47	115	15	5	9
By kind of power used							
Steam.....	3	31	3	...	...	...	...
Electric and Diesel-electric.....	5	19	2	...	1	...	2
Diesel.....	80	57	17	50	9	1	3
Gasoline and other.....	103	57	25	65	5	4	4
By dipper or bucket capacity (cubic yards)							
Less than 3.....	180	103	46	109	11	5	9
3-5 inclusive.....	8	4	1	3	4	...	...
6-12 inclusive.....	1	...	...	1	...	...	...
More than 12.....	2	...	...	2	...	...	...
Dragline excavators, total.....	32	10	3	27	1	1	...
By kind of power used							
Steam.....	...	2	...	...	...	...	...
Electric and Diesel-electric.....	1	2	...	1	...	...	...
Diesel.....	23	6	3	19	1	...	...
Gasoline and other.....	8	6	...	7	...	1	...
By dipper or bucket capacity (cubic yards)							
Less than 3.....	27	10	3	22	1	1	...
3-5 inclusive.....	5	...	...	5	...	...	...
6-12 inclusive.....	...	...	...	...	...	...	...
Scraper loaders, total.....	51	2	2	29	8	5	7
By kind of power used							
Steam.....	...	...	...	...	...	...	...
Electric and Diesel-electric.....	3	1	...	...	...	1	2
Diesel.....	30	1	1	22	4	1	2
Gasoline and other.....	18	1	1	7	4	3	3
By rated horsepower							
Less than 10.....	7	1	1	4	...	2	...
10-25 inclusive.....	11	1	1	3	5	2	...
26-100 inclusive.....	29	...	...	20	2	...	7
More than 100.....	4	...	...	2	1	1	...
Clamshell and orange peel loaders, total.....	8	6	7	1	...	...	...
By kind of power used							
Steam.....	...	...	...	...	...	...	...
Electric and Diesel-electric.....	...	...	...	...	...	...	...
Diesel.....	2	6	2	...	...	...	...
Gasoline and other.....	6	6	5	1	...	...	...
Cranes and hoists, total.....	...	4	...	...	...	...	...
By kind of power used							
Electric and Diesel-electric.....	...	1	...	...	...	...	...
Diesel.....	...	3	...	...	...	...	...
Gasoline and other.....	...	3	...	...	...	...	...
All other types of equipment.....	110	2	22	52	28	2	6
By kind of power used							
Electric and Diesel-electric.....	4	...	3	...	1	...	...
Diesel.....	63	2	12	32	16	...	3
Gasoline and other.....	43	2	7	20	11	2	3
Underground loading equipment, total.....	48	2	18	7	6	4	13
By kind of power used							
Electric and Diesel-electric.....	35	2	13	6	5	2	9
Compressed air.....	6	...	...	...	...	2	4
Diesel.....	2	...	...	1	1	...	...
Gasoline and other.....	5	...	5	...	...	...	...
Shovel loaders requiring a minimum working height of 8 feet or less, total.....	6	...	3	...	1	2	...
By kind of power used							
Electric and Diesel-electric.....	3	...	2	...	1	...	...
Compressed air.....	2	...	...	...	...	2	...
Gasoline and other.....	1	...	1	...	...	...	...
Shovel loaders requiring a minimum working height of more than 8 feet (electric or Diesel-electric).....	1	...	...	1	...	...	...
Scraper loaders (including slushers), total.....	20	...	5	2	...	...	13
By kind of power used							
Electric and Diesel-electric.....	15	...	4	2	...	...	9
Compressed air.....	4	...	...	...	...	...	4
Gasoline and other.....	1	...	1	...	...	...	...
By rated horsepower							
Less than 10.....	12	...	3	...	...	...	9
10-25 inclusive.....	8	...	2	2	...	...	4
Other types of equipment, total.....	21	2	10	4	5	2	...
By kind of power used							
Electric and Diesel-electric.....	16	2	7	3	4	2	...
Diesel.....	2	...	...	1	1	...	...
Gasoline and other.....	3	...	3	...	...	...	...

See footnote at end of table.

Table 11.—NUMBER OF POWER LOADING MACHINES IN THE CLAY, CERAMIC, AND REFRACTORY MINERALS INDUSTRIES: 1954 AND 1939,
AND BY GEOGRAPHIC DIVISIONS: 1954—Continued

Type of loading equipment	Fuller's earth industry			
	United States		South Atlantic	South Central and West
	1954	1939		
Surface loading equipment, total.....	42	35	28	14
By kind of power used				
Steam.....	...	18	...	...
Electric and Diesel-electric.....	3	2	3	...
Diesel.....	28	15	20	8
Gasoline and other.....	11		5	6
Power shovels, total.....	13	26	7	6
By kind of power used				
Steam.....	...	17	...	...
Diesel.....	7	9	4	3
Gasoline and other.....	6		3	3
By dipper or bucket capacity (cubic yards)				
Less than 3.....	10	26	4	6
3-5 inclusive.....	3	...	3	...
6-12 inclusive.....	...	...	...	...
More than 12.....	...	...	...	...
Dragline excavators, total.....	14	6	12	2
By kind of power used				
Steam.....	...	1	...	...
Electric and Diesel-electric.....	2	...	2	...
Diesel.....	11	5	9	2
Gasoline and other.....	1		1	...
By dipper or bucket capacity (cubic yards)				
Less than 3.....	10	6	8	2
3-5 inclusive.....	3	...	3	...
6-12 inclusive.....	1	...	1	...
Scraper loaders, total.....	5	1	5	...
By kind of power used				
Steam.....	...	...	...	...
Diesel.....	5	1	5	...
Gasoline and other.....	...		...	...
By rated horsepower				
10-25 inclusive.....	...	1	...	...
26-100 inclusive.....	5	...	5	...
Clamshell and orange peel loaders (electric or Diesel-electric).....	1	1	1	...
All other types of equipment.....	9	1	3	6
By kind of power used				
Electric and Diesel-electric.....	...	1	...	...
Diesel.....	5	...	2	3
Gasoline and other.....	4	...	1	3

See footnote at end of table.

Table 11.—NUMBER OF POWER LOADING MACHINES IN THE CLAY, CERAMIC, AND REFRACTORY MINERALS INDUSTRIES: 1954 AND 1939,
AND BY GEOGRAPHIC DIVISIONS: 1954—Continued

Type of loading equipment	Kaolin and ball clay industry				
	United States		Middle Atlan- tic and South Atlantic	South Central	West
	1954	1939 ¹			
Surface loading equipment, total.....	173	87	123	41	9
By kind of power used					
Steam.....	1	24	1	...	...
Electric and Diesel-electric.....	6	4	6	...	...
Diesel.....	103	59	76	22	5
Gasoline and other.....	63		40	19	4
Power shovels, total.....	51	58	36	13	2
By kind of power used					
Steam.....	...	19	...	...	...
Electric and Diesel-electric.....	...	4	...	...	...
Diesel.....	37	35	27	10	...
Gasoline and other.....	14		9	3	2
By dipper or bucket capacity (cubic yards)					
Less than 3.....	48	58	33	13	2
3-5 inclusive.....	3	...	3	...	...
Dragline excavators, total.....	31	16	26	5	...
By kind of power used					
Steam.....	1	5	1	...	...
Electric and Diesel-electric.....	2	...	2	...	...
Diesel.....	21	11	16	5	...
Gasoline and other.....	7		7	...	...
By dipper or bucket capacity (cubic yards)					
Less than 3.....	27	15	23	4	...
3-5 inclusive.....	1	1	...	1	...
6-12 inclusive.....	3	...	3	...	...
Scraper loaders, total.....	56	7	37	16	3
By kind of power used					
Steam.....	...	...	...	...	...
Electric and Diesel-electric.....	1	...	1	...	...
Diesel.....	26	7	20	3	3
Gasoline and other.....	29		16	13	...
By rated horsepower					
Less than 10.....	...	1	...	...	...
10-25 inclusive.....	1	3	...	1	...
26-100 inclusive.....	28	3	10	15	3
More than 100.....	27	...	27	...	...
Clamshell and orange peel loaders, total.....	...	1	...	...	...
By kind of power used					
Steam.....	...	...	...	...	...
Electric and Diesel-electric.....	...	...	...	...	...
Diesel.....	...	1	...	...	...
Gasoline and other.....	...		...	...	...
All other types of equipment.....	35	5	24	7	4
By kind of power used					
Electric and Diesel-electric.....	3	...	3	...	...
Diesel.....	19	5	13	4	2
Gasoline and other.....	13		8	3	2
Underground loading equipment (compressed air).....	5	...	...	...	5
Shovel loaders requiring a minimum working height of 8 feet or less (compressed air).....	1	...	...	...	1
Scraper loaders, including slushers (compressed air).....	4	...	...	...	4
By rated horsepower					
Less than 10.....	4	...	...	...	4

See footnote at end of table.

Table 11.—NUMBER OF POWER LOADING MACHINES IN THE CLAY, CERAMIC, AND REFRACTORY MINERALS INDUSTRIES: 1954 AND 1939,
AND BY GEOGRAPHIC DIVISIONS: 1954—Continued

Type of loading equipment	Feldspar industry					
	United States		New England	West North Central	South	West
	1954	1939				
Surface loading equipment, total.....	56	13	12	8	26	10
By kind of power used						
Steam.....	...	2	...	...	...	...
Electric and Diesel-electric.....	2	1	...	...	...	2
Diesel.....	27	10	3	3	19	2
Gasoline and other.....	27		9	5	7	6
Power shovels, total.....	24	1	6	5	13	...
By kind of power used						
Steam.....	...	1	...	...	...	...
Diesel.....	17	...	2	2	13	...
Gasoline and other.....	7		4	3	...	...
By dipper or bucket capacity (cubic yards)						
Less than 3.....	24	1	6	5	13	...
Dragline excavators, total.....	1	...	...	...	1	...
By kind of power used						
Diesel.....	1	...	...	...	1	...
By dipper or bucket capacity (cubic yards)						
Less than 3.....	1	...	...	...	1	...
Scraper loaders, total.....	13	3	1	2	5	5
By kind of power used						
Diesel.....	5	3	...	...	5	...
Gasoline and other.....	8		1	2	...	5
By rated horsepower						
Less than 10.....	1	3	...	1	...	...
10-25 inclusive.....	3	...	...	1	2	...
26-100 inclusive.....	9	...	1	...	3	5
Cranes and hoists, total.....	...	8	...	...	...	...
By kind of power used						
Steam.....	...	1	...	...	...	...
Electric and Diesel-electric.....	...	1	...	...	...	...
Diesel.....	...	6	...	...	...	...
Gasoline and other.....	...		...	...	...	...
All other types of equipment.....	18	1	5	1	7	5
By kind of power used						
Electric and Diesel-electric.....	2	...	...	...	...	2
Diesel.....	4	1	1	1	...	2
Gasoline and other.....	12		4	...	7	1
Underground loading equipment, total.....	8	...	2	...	6	...
By kind of power used						
Electric and Diesel-electric.....	1	...	...	...	1	...
Gasoline and other.....	7	...	2	...	5	...
Scraper loaders (including slushers), total.....	1	...	1	...	...	...
By kind of power used						
Gasoline and other.....	1	...	1	...	...	...
By rated horsepower						
More than 100.....	1	...	1	...	...	...
Other types of equipment, total.....	7	...	1	...	6	...
By kind of power used						
Electric and Diesel-electric.....	1	...	...	...	1	...
Gasoline and other.....	6	...	1	...	5	...
Magnesite and brucite industry						
	United States		New England	West North Central	South	West
	1954	1939				
Surface loading equipment, total.....	12	2	...	...	...	12
By kind of power used						
Electric and Diesel-electric.....	...	2	...	...	...	...
Diesel.....	10	...	...	...	...	10
Gasoline and other.....	2	...	...	...	...	2
Power shovels, total.....	7	2	...	...	...	7
By kind of power used						
Electric and Diesel-electric.....	...	2	...	...	...	...
Diesel.....	6	...	...	...	...	6
Gasoline and other.....	1	...	...	...	...	1
By dipper or bucket capacity (cubic yards)						
Less than 3.....	4	2	...	...	...	4
3-5 inclusive.....	3	...	...	...	...	3
All other types of equipment.....	5	...	...	...	...	5
By kind of power used						
Diesel.....	4	...	...	...	...	4
Gasoline and other.....	1	...	...	...	...	1

Table 11.—NUMBER OF POWER LOADING MACHINES IN THE CLAY, CERAMIC, AND REFRACTORY MINERALS INDUSTRIES: 1954 AND 1939,
AND BY GEOGRAPHIC DIVISIONS: 1954—Continued

Type of loading equipment	Clay, ceramic, and refractory minerals, n.e.c., industry									
	United States		North-east	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific
	1954	1939 ¹								
Surface loading equipment, total.....	213	685	51	36	21	29	9	16	23	28
By kind of power used										
Steam.....	3	211	...	2	...	...	1	...	...	...
Electric and Diesel-electric.....	17	192	5	5	3	3	...	1	...	...
Diesel.....	107	282	27	17	12	19	2	8	11	11
Gasoline and other.....	86		19	12	6	7	6	7	12	17
Power shovels, total.....	97	542	32	14	9	16	3	5	6	12
By kind of power used										
Steam.....	3	190	...	2	...	...	1	...	...	...
Electric and Diesel-electric.....	15	160	5	3	3	3	...	1	...	...
Diesel.....	38	192	13	5	3	10	1	...	3	3
Gasoline and other.....	41		14	4	3	3	1	4	3	9
By dipper or bucket capacity (cubic yards)										
Less than 3.....	94	531	31	14	9	16	2	5	6	11
3-5 inclusive.....	3	9	1	...	...	...	1	...	...	1
6-12 inclusive.....	...	2	...	...	...	...	...	...	...	...
More than 12.....	...		...	...	...	...	...	...	...	...
Dragline excavators, total.....	22	70	2	10	...	4	4	1	1	...
By kind of power used										
Steam.....	...	17	...	...	...	...	...	...	...	...
Electric and Diesel-electric.....	1	22	...	1	...	...	...	...	...	...
Diesel.....	13	31	2	5	...	3	1	1	1	...
Gasoline and other.....	8		...	4	...	1	3	...	...	...
By dipper or bucket capacity (cubic yards)										
Less than 3.....	20	69	1	9	...	4	4	1	1	...
3-5 inclusive.....	2	1	1	1	...	...	...	...	...	...
Scraper loaders, total.....	33	22	8	3	4	3	...	6	2	7
By kind of power used										
Steam.....	...	1	...	...	...	...	...	...	...	...
Electric and Diesel-electric.....	...	3	...	...	...	...	...	...	...	...
Diesel.....	23	18	6	...	3	3	...	5	2	4
Gasoline and other.....	10		2	3	1	...	...	1	...	3
By rated horsepower										
Less than 10.....	6	2	5	1	...	...	...	...	...	...
10-25 inclusive.....	4	13	3	...	...	...	...	...	1	...
26-100 inclusive.....	16	7	...	2	4	3	...	2	1	4
More than 100.....	7	...	...	...	...	...	...	4	...	3
Clamshell and orange peel loaders, total.....	5	11	1	1	...	1	1	...	1	...
By kind of power used										
Steam.....	...	3	...	...	...	...	...	...	...	...
Electric and Diesel-electric.....	...	2	...	...	...	...	...	...	...	...
Diesel.....	3	6	1	1	...	1	...	...	...	...
Gasoline and other.....	2		...	...	...	...	1	...	1	...
Cranes and hoists, electric and Diesel-electric..	...	2	...	...	...	...	...	...	...	...
All other types of equipment.....	56	38	8	8	8	5	1	4	13	9
By kind of power used										
Electric and Diesel-electric.....	1	3	...	1	...	...	...	...	...	...
Diesel.....	30	35	5	6	6	2	...	2	5	4
Gasoline and other.....	25		3	1	2	3	1	2	8	5
Underground loading equipment (electric and Diesel-electric).....	2	2	...	...	...	...	2	...	...	...
Shovel loaders requiring a minimum working height of 8 feet or less (electric and Diesel-electric).....	...	2	...	...	...	...	...	...	...	...
Other types of equipment (electric and Diesel-electric).....	2	...	...	...	...	...	2	...	...	...

¹Includes equipment at pits operated as part of manufacturing establishments. No data on such equipment are available for 1954. For the extent of such operations see table 2B.

Table 12.—MATERIALS, SUPPLIES, FUELS, AND ELECTRIC ENERGY USED IN THE CLAY, CERAMIC, AND REFRACTORY MINERALS INDUSTRIES BY GEOGRAPHIC DIVISIONS AND STATES: 1954

(For explanation of line captions, see INTRODUCTION)

Item	Unit of measure for quantity	Bentonite industry					
		United States, total		West North Central and South Central		West	
		Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
Minerals prepared, total.....	1,000 short tons ¹	1,209	...	470	...	739	...
Crude ore mined and prepared at the same establishment.....	....do.....	(D)	...	(D)	...	739	...
Minerals received from other establishments for preparation ².....	....do.....	(D)	...	(D)	...	...	...
Supplies used.....	.....	xxx	2,916	xxx	1,824	xxx	1,092
Fuels used, total.....	Million kwh equivalent.	343	468	179	212	164	256
Bituminous coal.....	1,000 short tons	...	...	...	...	...	...
Distillate fuel oil.....	1,000 barrels...	69	215	12	51	68	196
Residual fuel oil.....	....do.....	11	32	(D)	(D)	(D)	(D)
Gas (natural and manufactured).....	Million cu. ft..	626	166	xxx	(D)	xxx	(D)
Other fuels.....	.....	xxx	55	xxx	(D)	xxx	(D)
Electric energy purchased.....	Million kwh....	26	305	12	144	14	161
Electric energy generated and used.....	....do.....	...	xxx	...	xxx	...	xxx
		Fire clay industry					
		United States, total		Middle Atlantic		North Central	
		Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
Minerals prepared, total.....	1,000 short tons ¹	2,042	...	607	...	1,126	...
Crude ore mined and prepared at the same establishment.....	....do.....	1,980	...	(D)	...	(D)	...
Minerals received from other establishments for preparation ².....	....do.....	62	160	(D)	...	(D)	...
Supplies used.....	.....	xxx	1,983	xxx	472	xxx	1,209
Fuels used, total.....	Million kwh equivalent.	283	639	49	117	204	438
Bituminous coal.....	1,000 short tons	3	15	2	11	1	4
Distillate fuel oil.....	1,000 barrels...	40	180	10	43	26	117
Residual fuel oil.....	....do.....	68	171	2	1	67	167
Gas (natural and manufactured).....	Million cu. ft..	31	8	2	1	2	...
Other fuels.....	.....	xxx	265	xxx	62	xxx	148
Electric energy purchased.....	Million kwh....	17	305	4	100	11	165
Electric energy generated and used.....	....do.....	...	xxx	...	xxx	...	xxx
		Fire clay industry--Continued				Fuller's earth industry	
		Mountain		Pacific		United States, total	
		Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
Minerals prepared, total.....	1,000 short tons ¹	38	...	106	...	449	...
Crude ore mined and prepared at the same establishment.....	....do.....	38	...	(D)	...	449	...
Minerals received from other establishments for preparation ².....	....do.....	...	...	(D)	...	...	...
Supplies used.....	.....	xxx	30	xxx	112	xxx	840
Fuels used, total.....	Million kwh equivalent.	11	19	6	23	280	538
Bituminous coal.....	1,000 short tons	...	...	...	...	...	...
Distillate fuel oil.....	1,000 barrels...	...	...	1	4	60	205
Residual fuel oil.....	....do.....	...	1	...	...	89	238
Gas (natural and manufactured).....	Million cu. ft..	26	5	2	...	84	18
Other fuels.....	.....	xxx	13	xxx	19	xxx	77
Electric energy purchased.....	Million kwh....	...	7	...	5	16	218
Electric energy generated and used.....	....do.....	...	xxx	...	xxx	...	xxx

See footnotes at end of table.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 12.—MATERIALS, SUPPLIES, FUELS, AND ELECTRIC ENERGY USED IN THE CLAY, CERAMIC, AND REFRACTORY MINERALS INDUSTRIES BY GEOGRAPHIC DIVISIONS AND STATES: 1954--Continued

(For explanation of line captions, see INTRODUCTION)

Item	Unit of measure for quantity	Fuller's earth industry—Con.				Kaolin and ball clay industry			
		South Atlantic		South Central and West		United States, total		Middle Atlantic and South Atlantic	
		Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Total	
								Quantity	Cost (\$1,000)
Minerals prepared, total.....	1,000 short tons ¹	395	...	54	...	2,292	...	2,059	...
Crude ore mined and prepared at the same establishment.....	....do.....	395	...	54	...	2,289	...	2,059	...
Minerals received from other establishments for preparation ².....	....do.....	...	...	...	...	3	...	14	...
Supplies used.....	.....	xxx	761	xxx	79	xxx	4,576	xxx	3,848
Fuels used, total.....	Million kwh equivalent.	264	495	16	43	1,050	1,524	935	1,302
Bituminous coal.....	1,000 short tons	...	...	...	...	6	53	6	53
Distillate fuel oil.....	1,000 barrels...	53	173	7	32	135	529	100	376
Residual fuel oil.....	....do.....	89	238	...	...	6	25	6	25
Gas (natural and manufactured).....	Million cu. ft..	70	16	14	2	2,316	714	2,166	681
Other fuels.....	.....	xxx	68	xxx	9	xxx	203	xxx	167
Electric energy purchased.....	Million kwh....	15	203	1	15	84	857	79	797
Electric energy generated and used.....	....do.....	...	xxx	...	xxx	...	xxx	...	xxx
Kaolin and ball clay industry—Continued									
Middle Atlantic and South Atlantic—Continued									
South Carolina				Georgia		South Central		West	
Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
Minerals prepared, total.....	1,000 short tons ¹	362	...	1,654	...	(D)	...	(D)	...
Crude ore mined and prepared at the same establishment.....	....do.....	362	...	1,654	...	(D)	...	(D)	...
Minerals received from other establishments for preparation ².....	....do.....	...	...	...	...	(D)	...	(D)	...
Supplies used.....	.....	xxx	704	xxx	2,947	xxx	578	xxx	164
Fuels used, total.....	Million kwh equivalent.	138	257	735	944	113	213	2	9
Bituminous coal.....	1,000 short tons	...	...	2	17	...	...	...	...
Distillate fuel oil.....	1,000 barrels...	32	120	56	220	35	151	...	2
Residual fuel oil.....	....do.....	223	78	1,943	603	150	33	...	...
Gas (natural and manufactured).....	Million cu. ft..	xxx	59	xxx	104	xxx	29	xxx	7
Other fuels.....	.....	10	111	63	608	5	52	...	8
Electric energy purchased.....	Million kwh....	...	xxx	...	xxx	...	xxx	...	xxx
Electric energy generated and used.....	....do.....	...	xxx	...	xxx	...	xxx	...	xxx
Feldspar industry									
United States, total									
New England				West North Central					
Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
Minerals prepared, total.....	1,000 short tons ¹	614	...	49	...	(D)	...	(D)	...
Crude ore mined and prepared at the same establishment.....	....do.....	552	...	(D)	...	(D)	...	(D)	...
Minerals received from other establishments for preparation ².....	....do.....	62	430	(D)	...	(D)	...	(D)	...
Supplies used.....	.....	xxx	1,400	xxx	173	xxx	167	xxx	167
Fuels used, total.....	Million kwh equivalent.	78	238	6	21	8	20	...	...
Bituminous coal.....	1,000 short tons	...	...	...	...	...	...	...	...
Distillate fuel oil.....	1,000 barrels...	39	190	2	12	4	14	...	...
Residual fuel oil.....	....do.....	...	...	...	...	...	...	...	...
Gas (natural and manufactured).....	Million cu. ft..	...	...	...	...	...	...	...	...
Other fuels.....	.....	xxx	48	xxx	9	xxx	6	...	...
Electric energy purchased.....	Million kwh....	24	302	5	74	3	35	...	...
Electric energy generated and used.....	....do.....	...	xxx	...	xxx	...	xxx	...	xxx

See footnotes at end of table.

Table 12.—MATERIALS, SUPPLIES, FUELS, AND ELECTRIC ENERGY USED IN THE CLAY, CERAMIC, AND REFRACTORY MINERALS INDUSTRIES BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

(For explanation of line captions, see INTRODUCTION)

Item	Unit of measure for quantity	Feldspar industry—Continued				Magnesite and brucite industry (United States)	
		South		West		Quantity	Cost
		Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)		
Minerals prepared, total.....	1,000 short tons ¹	493	...	(D)	...	(D)	...
Crude ore mined and prepared at the same establishment.....	....do.....	(D)	...	(D)	...	(D)	...
Minerals received from other establishments for preparation ²	....do.....	(D)	...	(D)	...	...	...
Supplies used.....	.....	xxx	1,272	xxx	218	xxx	212
Fuels used, total.....	Million kwh equivalent.	61	182	3	15	11	32
Bituminous coal.....	1,000 short tons	...	...	...	...	...	...
Distillate fuel oil.....	1,000 barrels...	33	162	...	2	5	24
Residual fuel oil.....	....do.....	...	...	...	...	...	...
Gas (natural and manufactured).....	Million cu. ft..	xxx	20	xxx	13	xxx	8
Other fuels.....	.....	...	...	...	...	...	...
Electric energy purchased.....	Million kwh....	15	176	1	17	5	39
Electric energy generated and used.....	....do.....	...	xxx	...	xxx	...	xxx
Clay, ceramic, and refractory minerals, n.e.c., industry							
		United States, total		Northeast		East North Central	
		Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
Minerals prepared, total.....	1,000 short tons ¹	2,892	...	(D)	...	194	...
Crude ore mined and prepared at the same establishment.....	....do.....	(D)	...	(D)	...	...	...
Minerals received from other establishments for preparation ²	....do.....	(D)	...	(D)	...	...	...
Supplies used.....	.....	xxx	1,621	xxx	392	xxx	123
Fuels used, total.....	Million kwh equivalent.	1,105	1,212	31	99	54	166
Bituminous coal.....	1,000 short tons	7	54	...	6	1	10
Distillate fuel oil.....	1,000 barrels...	54	236	10	41	9	38
Residual fuel oil.....	....do.....	25	71	...	...	2	1
Gas (natural and manufactured).....	Million cu. ft..	2,709	552	xxx	52	xxx	117
Other fuels.....	.....	xxx	299	xxx	...	xxx	...
Electric energy purchased.....	Million kwh....	21	389	3	66	3	68
Electric energy generated and used.....	....do.....	1	xxx	...	xxx	...	xxx
Clay, ceramic, and refractory minerals, n.e.c., industry—Continued							
		West North Central		South Atlantic		East South Central	
		Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
Minerals prepared, total.....	1,000 short tons ¹	340	...	844	...	176	...
Crude ore mined and prepared at the same establishment.....	....do.....	340	...	844	...	176	...
Minerals received from other establishments for preparation ²	....do.....	...	...	...	...	...	...
Supplies used.....	.....	xxx	125	xxx	457	xxx	96
Fuels used, total.....	Million kwh equivalent.	279	238	58	163	54	59
Bituminous coal.....	1,000 short tons	...	...	...	3	6	35
Distillate fuel oil.....	1,000 barrels...	10	36	26	114	1	3
Residual fuel oil.....	....do.....	...	...	...	...	...	...
Gas (natural and manufactured).....	Million cu. ft..	844	189	25	19	...	...
Other fuels.....	.....	xxx	13	xxx	27	xxx	21
Electric energy purchased.....	Million kwh....	1	38	8	119	1	23
Electric energy generated and used.....	....do.....	...	xxx	1	xxx	...	xxx

See footnotes at end of table.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 12.—MATERIALS, SUPPLIES, FUELS, AND ELECTRIC ENERGY USED IN THE CLAY, CERAMIC, AND REFRACTORY MINERALS INDUSTRIES BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

(For explanation of line captions, see INTRODUCTION)

Item	Unit of measure for quantity	Clay, ceramic, and refractory minerals, n.e.c., industry—Continued					
		West South Central		Mountain		Pacific	
		Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
Minerals prepared, total.....	1,000 short tons ¹	600	...	(D)	...	281	...
Crude ore mined and prepared at the same establishment.....	....do.....	600	...	(D)	...	281	...
Minerals received from other establishments for preparation ²	....do.....	...	...	...	...	...	...
Supplies used.....	.....	xxx	273	xxx	27	xxx	128
Fuels used, total.....	Million kwh equivalent.	489	269	5	17	135	201
Bituminous coal.....	1,000 short tons	...	...	...	...	...	...
Distillate fuel oil.....	1,000 barrels...	1	7	1	4	21	64
Residual fuel oil.....	....do.....	...	...	...	...	...	...
Gas (natural and manufactured).....	Million cu. ft..	1,577	253	3	1	258	89
Other fuels.....	.....	xxx	9	xxx	12	xxx	48
Electric energy purchased.....	Million kwh....	3	45	...	...	2	30
Electric energy generated and used.....	....do.....	...	xxx	...	xxx	...	xxx

D Withheld to avoid approximately disclosing figures of individual companies.

xxx Not applicable.

¹Figures for the Feldspar Industry are shown in thousands of long tons.²The figures for the Fire Clay Industry include minerals received for milling on a custom basis.

Table 13.—WATER USE IN THE CLAY, CERAMIC, AND REFRACTORY MINERALS INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954

(For explanation of column captions, see INTRODUCTION)

Industry, geographic division, and State	Number of produc- tion and develop- ment workers	Value added in mining (\$1,000)	Water intake (except mine water)			Water dis- charged (except mine water) (Million gallons)	Mine water (Million gallons)		Gross water use, in- clud- ing re- circu- lation (Million gallons)	Percent of total water intake (except mine water) by principal source				
			Million gallons	Million gallons per produc- tion worker ¹	Gallons per dollar value added		Used	Drained and dis- charged		Public water systems	Company surface water systems	Company ground water systems	Not speci- fied	
BENTONITE INDUSTRY														
United States, total.....	578	16,350	12	0.02	1	2	...	...	12	8	...	92	...
West North Central and South Central.....	323	5,357	11	0.03	2	1	...	...	11	9	...	91	...
West.....	255	10,993	1	(²)	(³)	1	...	...	1	...	...	100	...
FIRE CLAY INDUSTRY														
United States, total.....	1,802	17,468	113	0.06	6	101	44	1,665	597	41	11	48	(³)	
Middle Atlantic, total.....	651	5,165	32	0.05	6	31	44	1,299	516	19	...	81	...	
New Jersey.....	97	501	26	0.27	52	25	44	1,000	510	...	...	100	...
Pennsylvania.....	554	4,664	6	0.01	1	6	...	299	6	100	...	...	...
North Central.....	681	8,880	67	0.10	8	65	...	272	67	46	12	42	...	
Ohio.....	389	6,103	51	0.13	8	49	...	259	51	62	16	24	...	
Missouri.....	219	1,893	16	0.07	8	16	...	13	16	...	...	100	...
South.....	339	2,110	5	0.01	2	5	...	94	5	...	...	...	100
Kentucky.....	238	969	...	...	...	...	...	2	...	...	...	...	...
Alabama.....	61	707	5	0.08	7	5	...	...	5	...	...	...	100
Mountain.....	76	549	9	0.12	16	...	...	...	9	100	...	...	...
Colorado.....	66	433	9	0.14	21	...	...	...	9	...	...	...	...
Pacific.....	55	764	...	...	...	...	...	...	...	...	...	...	...
FULLER'S EARTH INDUSTRY														
United States, total.....	510	4,179	51	0.10	12	51	...	...	51	43	...	57	...
South Atlantic.....	447	3,679	30	0.07	8	30	...	...	30	67	...	33	...
South Central and West.....	63	500	21	0.33	42	21	...	...	21	10	...	90	...
Texas.....	10	115	...	...	...	...	...	...	...	...	...	...	...
KAOLIN AND BALL CLAY INDUSTRY														
United States, total.....	2,820	25,249	3,788	1.34	150	3,732	102	213	4,481	...	35	65	...	
Middle Atlantic and South Atlantic.....	2,436	20,355	3,743	1.54	184	3,688	101	213	4,435	...	36	64	...	
South Carolina.....	366	3,009	7	0.02	2	7	...	...	7	...	...	100	...
Georgia.....	1,828	16,486	2,582	1.41	157	2,527	101	112	3,274	...	7	93	...	
South Central.....	289	3,268	43	0.15	13	43	...	...	43	...	...	100	...
Tennessee.....	178	1,783	43	0.24	24	43	...	...	43	...	...	100	...
West.....	95	1,626	2	0.02	1	1	1	...	3	50	...	50	...	
FELDSPAR INDUSTRY														
United States, total.....	579	4,048	1,211	2.1	299	1,139	13	21	1,224	12	88	...	...
South.....	330	2,206	1,211	3.7	549	1,139	13	21	1,224	12	88	...	...
North Carolina.....	279	2,079	1,211	4.3	582	1,139	13	21	1,224	12	88	...	...
MAGNESITE AND BRUCITE INDUSTRY														
United States.....	121	1,372	...	...	...	...	1,152	1,152	2,201	...	...	...	...
CLAY, CERAMIC, AND REFRACTORY MINERALS, N.E.C., INDUSTRY														
United States, total.....	1,053	9,783	246	0.23	25	238	21	21	736	16	59	21	4	
Northeast.....	154	1,480	2	0.01	1	2	3	3	10	50	50	...	...
New Jersey.....	52	586	1	...	...	...	3	3	3	...	...	...	...
Pennsylvania.....	49	554	1	0.02	2	1	...	...	1	100	...	...	...
East North Central.....	87	753	12	0.14	16	12	18	18	30	67	...	33	...	
Ohio.....	19	203	4	0.21	20	4	...	...	4	...	...	100	...
Indiana.....	23	182	8	(⁴)	44	8	...	...	8	100	...	...	...
West North Central.....	106	1,135	20	0.19	18	20	...	...	20	50	...	50	...
Missouri.....	48	588	10	0.21	17	10	...	...	10	...	...	100	...

See footnotes at end of table.

Table 13.—WATER USE IN THE CLAY, CERAMIC, AND REFRACTORY MINERALS INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

(For explanation of column captions, see INTRODUCTION)

Industry, geographic division, and State	Number of production and development workers	Value added in mining (\$1,000)	Water intake (except mine water)			Water discharged (except mine water) (Million gallons)	Mine water (Million gallons)		Gross water use, including recirculation (Million gallons)	Percent of total water intake (except mine water) by principal source			
			Million gallons	Million gallons per production worker ¹	Gallons per dollar value added		Used	Drained and discharged		Public water systems	Company surface water systems	Company ground water systems	Not specified
CLAY, CERAMIC, AND REFRACTORY MINERALS, N.E.C., INDUSTRY—Con.													
South Atlantic.....	291	2,538	165	0.57	65	158	...	...	629	3	88	3	6
Virginia.....	100	887	46	0.46	52	46	...	...	61	11	89	...	...
North Carolina.....	55	513	102	1.85	199	96	...	...	102	...	100	...	...
East South Central.....	101	577	20	0.20	35	20	...	...	20	...	...	100	...
Kentucky.....	40	300	20	0.50	67	20	...	...	20	...	...	...	...
West South Central.....	151	1,803	21	0.14	12	20	...	...	21	48	...	48	4
Louisiana.....	79	1,061	11	0.14	10	10	...	...	11	...	...	91	9
Mountain (Idaho).....	33	357	1	0.03	3	1	...	...	1	...	...	100	...
Pacific.....	130	1,140	5	0.04	4	5	...	...	5	100	...	...	...
California.....	100	815	3	0.03	4	3	...	...	3	100	...	...	...

¹For computations of water intake per production worker, including mine water used, see table 3.²Less than 5 thousand gallons per production worker.³Less than 0.5.⁴See table 3, footnote 26.

Natural Abrasives, Except Sand

This report shows 1954 Census of Mineral Industries statistics for establishments classified in Industry 1462, Abrasive stones, natural, and Industry 1469, Natural abrasives, except sand, n.e.c. Industry 1462 represents establishments primarily engaged in mining, quarrying, or shaping at the quarry, grindstones, pulpstones, millstones, burrstones, and sharpening stones (such as oilstones, whetstones, and scythestones). Industry 1469 represents establishments primarily engaged in mining, quarrying, milling, or otherwise preparing natural abrasives, not elsewhere classified, such as tripoli, emery, garnet, corundum, and industrial diamonds. Establishments primarily engaged in the production of blast, grinding, or polishing sand are classified in Industry 1441, and those primarily engaged in the production of diatomite in Industry 1499. Establishments primarily producing quartz were also included in Industry 1469 for 1954 and most years prior to 1939 since large amounts of quartz are used for abrasive purposes. For 1939, there was no specific provision on the report forms for quartz. It is probable that quartz producers for 1939 classified their product on the basis of its use and included at least part of it in the items "Ground natural abrasives" and "Other natural abrasives."

The total value of shipments of the natural abrasives industries in 1954 amounted to \$4.5 million, representing \$4.3 million for natural abrasives and \$0.2 million for secondary products and services. The "Natural abrasives, except sand, n.e.c.," industry accounted for \$4.1 million while the "Abrasive stones, natural" industry accounted for the remaining \$0.3 million. The total net value of natural abrasives produced in all industries amounted to \$5.6 million of which the natural abrasives industries accounted for approximately \$4.3 million and other mineral industries and manufacturing industries accounted for the remaining \$1.3 million (see Table 5A).

The 1954 report form used by the Bureau of the Census to collect information on quartz also provided information required by the Bureau of Mines for its annual statistics on quartz. The pub-

lished Bureau of Mines figures show a combined total for quartz, sand, and sandstone for abrasive purposes. Since the Bureau of the Census figures on quartz represent quartz produced for all purposes but include no figures on sand and sandstone for abrasive purposes, no comparison can be shown between the figures compiled by the two Bureaus for this commodity.

Figures on other products in this report were collected independently by the Bureau of the Census and the Bureau of Mines. Figures compiled by the two Bureaus on tube mill liners and grinding pebbles are identical. There are some differences, mostly small, between the figures collected by the two Bureaus for tripoli, emery, and garnet as shown in the following table:

Product	Bureau of the Census (short tons produced)	Bureau of Mines (short tons sold or used)
Tripoli.....	44,997	41,625
Emery and garnet.....	25,854	23,941
Tube mill liners and grinding pebbles....	4,003	4,003

The reasons for these differences are summarized below:

1. The Bureau of the Census collects information on production and shipments whereas the Bureau of Mines generally obtains figures on products sold or used.

2. A respondent may report different figures for the same product to the two Bureaus.

3. The Bureau of the Census may have better coverage of certain industries than the Bureau of Mines.

Direct comparisons between the figures obtained by the two Bureaus on miscellaneous natural abrasives cannot be shown. However, the differences between the figures for these products were relatively small.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 1.—COMPARATIVE STATISTICS FOR THE NATURAL ABRASIVES INDUSTRIES IN THE UNITED STATES: 1954, 1939, 1909, 1902, 1860, AND 1850
(For explanation of line captions and for statement on the minimum size of establishments included for each year, see INTRODUCTION)

Item	1954			1939 ¹	1909 ²	1902 ³	1860 ⁴	1850 ⁵
	Natural abrasives, total	Natural abrasive stones industry	Natural abrasives, except sand, n.e.c. industry					
Number of operating companies.....	32	11	21	27	77	65	49	35
Number of establishments.....	32	11	21	(NA)	(NA)	(NA)	(NA)	(NA)
Number of mines.....	32	11	21	36	119	71	(NA)	(NA)
Number of preparation plants.....	24	6	18	25	(NA)	(NA)	(NA)	(NA)
Production of natural abrasives.....1,000 short tons..	201	4	197	44	(NA)	(NA)	(NA)	(NA)
Shipments of natural abrasives.....do....	201	4	197	(NA)	(NA)	(NA)	(NA)	(NA)
Value of shipments, total ⁶.....\$1,000..	4,474	326	4,148	1,335	1,071	1,122	425	236
Natural abrasives.....do....	4,293	326	4,148	1,168	1,071	1,122	425	236
Other products and services.....do....	181			167	(NA)	(NA)	(NA)	
Value added in mining.....do....	3,681	236	3,445	1,115	831	1,044	278	139
Number of persons engaged, total.....	310	50	260	455	1,092	642	370	152
Production and development workers.....	251	42	209	383	972	757	370	152
All other employees.....	34	...	34	60	56	67	(NA)	(NA)
Proprietors and firm members.....	25	8	17	12	64	(NA)	(NA)	(NA)
Performing manual labor.....	12	3	9	3	31	(NA)	(NA)	(NA)
Man-hours worked by production and development workers, total.....1,000..	524	78	446	798	(NA)	(NA)	(NA)	(NA)
At mines, total.....do....	145	42	103	8450	(NA)	(NA)	(NA)	(NA)
Underground.....do....	2	...	2	822	(NA)	(NA)	(NA)	(NA)
Open-pit or quarry.....do....	140	42	98	8418	(NA)	(NA)	(NA)	(NA)
Surface (including mine shops and yards).....do....	3	...	3	810	(NA)	(NA)	(NA)	(NA)
At preparation plants.....do....	379	36	343	8343	(NA)	(NA)	(NA)	(NA)
Tons of natural abrasives produced per man hour.....	0.38	0.05	0.44	0.06	(NA)	(NA)	(NA)	(NA)
Principal expenses designated below, total.....\$1,000..	2,229	222	2,007	699	681	405	273	152
Wages of production and development workers.....do....	932	132	800	346	384	283	126	55
Salaries of all other employees.....do....	229	...	229	133	57	44		
Supplies and minerals received for preparation ⁹.....do....	612	31	581	149	150	78	147	97
Fuel.....do....	192	10	182	50	41			
Purchased electric energy.....do....	76	...	76	21		...	...	...
Contract work.....do....	188	49	139	...	49	...	(NA)	(NA)
Purchased machinery installed.....do....	123	(D)	(D)	(NA)	(NA)	(NA)	(NA)	(NA)
Capital expenditures, total.....do....	398	(D)	(D)	(NA)	(NA)	(NA)	(NA)	(NA)
Development and exploration of mineral property.....do....	11	...	11	(NA)	(NA)	(NA)	(NA)	(NA)
Preparation plant construction.....do....	193	...	193	30	(NA)	(NA)	(NA)	(NA)
Other construction.....do....	70	...	70		(NA)	(NA)	(NA)	(NA)
New machinery and equipment.....do....	103	(D)	(D)	51	(NA)	(NA)	(NA)	(NA)
Used plant and equipment.....do....	21	(D)	(D)	7	(NA)	(NA)	(NA)	(NA)
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	14,373	1,032	13,341	5,279	3,895	2,085	(NA)	(NA)
Per production worker.....	57	25	64	14	4	4	(NA)	(NA)
Prime movers.....	11,898	1,024	10,874	3,617	3,877	2,073	(NA)	(NA)
Electric motors driven by purchased energy.....	2,475	8	2,467	1,662	18	12	(NA)	(NA)
Horsepower rating of electric motors driven by energy generated and used at same establishment.....	2,198	298	1,900	902	100	...	(NA)	(NA)
Energy used.....million kwh equivalent..	89	3	86	109	(NA)	(NA)	(NA)	(NA)
Coal.....1,000 short tons..	2	(D)	(D)	12	(NA)	(NA)	(NA)	(NA)
Fuel oils.....1,000 barrels..	32	1	31	5	(NA)	(NA)	(NA)	(NA)
Manufactured and mixed gas.....million cu. ft..	23	(D)	(D)	8	(NA)	(NA)	(NA)	(NA)
Electric energy purchased.....million kwh..	5	...	5	1	(NA)	(NA)	(NA)	(NA)
Electric energy generated and used.....do....	...	...	...	1	(NA)	(NA)	(NA)	(NA)

D Withheld to avoid approximately disclosing figures of individual companies.

NA Not available.

¹The 1939 figures for the "Natural abrasives" industry, as published in the 1939 Census of Mineral Industries volumes, included establishments primarily engaged in producing pumice and pumicite, but excluded establishments primarily engaged in producing tripoli. The 1939 figures have been retabulated to represent for the "Natural abrasives" industries the combined statistics for the 1939 industries "Natural abrasives" and "Tripoli", adjusted to exclude figures for establishments primarily engaged in producing pumice and pumicite.

²For 1909, represents establishments primarily producing grindstones; buhrstones and millstones; oilstones, scythestones, and whetstones; corundum and emery; garnet; quartz; and tripoli.

³For 1902, represents establishments primarily producing grindstones and pulpstones; buhrstones and millstones; oilstones, whetstones, and scythestones; corundum and emery; garnet; and crystalline quartz. Excludes establishments primarily producing tripoli; in 1909, the value of production of tripoli establishments represents 6 percent of the total value of production for the natural abrasive industries.

⁴For 1860, represents grindstones and grindstone quarrying; millstones and mill furnishing; oilstones; scythestones; whetstones; corundum; and emery.

⁵For 1850, represents establishments primarily producing grindstones, burr millstones, and millstones only. Such establishments accounted for about 80 percent of the total value of products of natural abrasives establishments reported for 1860.

⁶Figures for 1939 and earlier years represent value of production.

⁷Figures for average number employed were reduced to a 300-day basis for establishments which operated for a shorter period.

⁸Excludes man-hours worked on inactive days. The distribution of these man-hours by department is not available.

⁹Figures for 1939, 1902, and earlier years exclude the cost of minerals received for preparation.

Table 2.—COMPARATIVE STATISTICS BY STATES: 1954, 1939, 1929, AND 1919

(These statistics are not available for these industries)

NATURAL ABRASIVES, EXCEPT SAND

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Table 3.—DETAILED STATISTICS FOR THE NATURAL ABRASIVES INDUSTRIES, BY GEOGRAPHIC DIVISIONS: 1954

(For explanation of line captions, see INTRODUCTION)

Item	United States, total	East ¹	South and West ²
Number of operating companies.....	32	15	17
Number of establishments.....	32	15	17
Number of mines.....	32	16	16
Number of preparation plants.....	24	12	12
Production of natural abrasives.....1,000 short tons..	201	72	129
Shipments of natural abrasives.....do....	201	71	130
Value of shipments.....\$1,000..	4,474	2,620	1,854
Value added in mining.....do....	3,681	2,049	1,632
Number of persons engaged, total.....	310	219	91
Production and development workers.....	251	192	59
All other employees.....	34	19	15
Proprietors and firm members.....	25	8	17
Performing manual labor.....	12	4	8
Man-hours worked by production and development workers, total.....1,000..	524	399	125
At mines, total.....do....	145	100	45
Underground.....do....	2	2	...
Open-pit or quarry.....do....	140	96	44
Surface (including mine shops and yards).....do....	3	2	1
At preparation plants.....do....	379	299	80
Man-hours spent on development and exploration work (included above).....do....	2	1	1
Tons of natural abrasives produced per man hour.....	0.38	0.18	1.04
Principal expenses designated below, total.....\$1,000..	2,229	1,457	772
Wages of production and development workers.....	932	700	232
Salaries of all other employees.....do....	229	117	112
Supplies and minerals received for preparation.....do....	612	408	204
Fuel.....do....	192	162	30
Purchased electric energy.....do....	76	38	38
Contract work.....do....	188	32	156
Purchased machinery installed.....do....	123	27	96
Capital expenditures, total.....do....	398	96	302
Development and exploration of mineral property.....do....	11	...	11
Preparation plant construction.....do....	193	...	193
Other construction.....do....	70	70	...
New machinery and equipment.....do....	103	26	77
Used plant and equipment.....do....	21	...	21
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	14,373	9,402	4,971
Per production worker.....	57	49	84
Prime movers.....	11,898	8,349	3,549
Electric motors driven by purchased energy.....	2,475	1,053	1,422
Horsepower rating of electric motors driven by energy generated and used at same establishments.....	2,198	2,037	161
Energy used.....million kwh equivalent..	89	75	14
Coal.....1,000 short tons..	2	2	...
Fuel oils.....1,000 barrels..	32	28	4
Manufactured and mixed gas.....million cu. ft..	23	23	...
Electric energy purchased.....million kwh..	5	2	3
Water intake, including mine water used.....million gallons..	203	(D)	(D)
Per production worker.....do....	0.81	(D)	(D)

D Withheld to avoid approximately disclosing figures of individual companies.

¹New Hampshire, 1 establishment; Massachusetts, 1 establishment; Connecticut, 1 establishment; New York, 4 establishments; Pennsylvania, 1 establishment; Ohio, 2 establishments; Indiana, 1 establishment; Illinois, 2 establishments; Minnesota, 1 establishment; and South Dakota, 1 establishment.

²Virginia, 1 establishment; Georgia, 1 establishment; Arkansas, 4 establishments; Oklahoma, 1 establishment; Texas, 1 establishment; Idaho, 2 establishments; Arizona, 2 establishments; Nevada, 1 establishment; Washington, 1 establishment; and California, 3 establishments.

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Table 4.—NUMBER OF ESTABLISHMENTS WITH PREPARATION PLANTS IN THE NATURAL ABRASIVES INDUSTRIES REPORTING SPECIFIED PREPARATION METHODS, CLASSIFIED BY NUMBER OF EMPLOYEES: 1954

Preparation methods	Total number of establishments	Establishments with an average of—					
		No employees	1-4 employees	5-9 employees	10-19 employees	20-49 employees	50-99 employees
Number of establishments with preparation plants.....	¹ 24	4	8	3	5	3	1
Number of establishments reporting specified preparation methods: ²							
Crushing.....	16	3	4	3	2	3	1
Grinding.....	5	...	1	...	1	2	1
Screening.....	11	3	4	2	1	1	...
Washing.....	5	1	...	2	...	1	1
Heavy-media.....	2	...	1	...	...	...	1
Gravity concentration.....	2	...	...	1	...	...	1
Flotation concentration.....	1	...	...	...	...	...	1
Drying.....	4	...	1	1	...	1	1
Air separation.....	1	...	...	...	...	1	...
Calcining.....	1	...	...	...	...	...	1
Dimension stone preparation.....	5	1	2	...	2	...	...
Trimming.....	1	1	...	...	...	...	...

¹One establishment did not specify the preparation methods used.²Some establishments reported more than one mineral preparation method used and are included in the line for each method reported.

Table 5A.—VALUE OF SHIPMENTS OF PRIMARY PRODUCTS OF THE NATURAL ABRASIVES INDUSTRIES PRODUCED IN ALL INDUSTRIES AND VALUE OF SECONDARY PRODUCTS AND SERVICES IN THE NATURAL ABRASIVES INDUSTRIES IN THE UNITED STATES: 1954

(For explanation of column captions, see INTRODUCTION)

Industry group and industry	Value of shipments and interplant transfers (\$1,000)				
	Total primary and secondary products produced in specified industry	Primary products			Secondary products and services
		Total	Produced in specified industry	Produced in other mineral industries and in manufacturing industries	
Natural abrasives, except sand.....	4,474	15,635	4,293	1,342	² 181
Abrasive stones, natural.....	326	415	324	91	2
Natural abrasives, except sand, n.e.c.....	4,148	15,220	3,969	1,251	179

¹Represents net shipments which are equal to shipments and interplant transfers less crude minerals received from other establishments for preparation. Receipts of minerals from other establishments for preparation by establishments in the "Natural abrasives, except sand, n.e.c." industry were subtracted from figures for abrasives produced in other mineral industries and in manufacturing industries in order to avoid approximately disclosing figures of individual companies. The value of these receipts amounted to less than 2 percent of the total value of shipments of primary products.

²Represents glass sand, miscellaneous sand, ground sand for abrasive purposes, crushed and broken sandstone, crude feldspar, common clay, and receipts for contract services.

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Table 5B.—PRIMARY PRODUCTS OF THE NATURAL ABRASIVE INDUSTRIES PRODUCED IN ALL INDUSTRIES IN THE UNITED STATES: 1954 AND 1939

(For explanation of column captions, see INTRODUCTION)

Product	1954			1939	
	Production (short tons)	Shipments and interplant transfers		Production	
		Quantity (short tons)	Value f.o.b. mine or plant (\$1,000)	Quantity (short tons)	Value f.o.b. mine or plant (\$1,000)
Natural abrasives ¹ (except quartz), total.....	...	...	3,596	...	1,180
Millstones, chasers, dragstones, pavers, grindstones, and pulpstones.....	3,614	3,638	186	10,192	440
Scythestones, oilstones, whetstones, hones, and rubbing stones.....	162	161	70		
Tube-mill liners and grinding pebbles.....	4,003	4,003	159	4,707	308
Emery and garnet.....	25,854	24,088	1,668		
Tripoli.....	44,997	45,549	1,513	30,195	432
Quartz:					
Crude.....	237,022	2,236,147	2,039	313,739	346
Crushed and ground.....	235,276			321,220	3107

¹Figures for 1939 represent only natural abrasives reported by establishments classified in 1939 in the "Natural abrasives" and the "Tripoli" industries. The 1939 figures exclude natural abrasives reported by establishments classified in other industries. These were valued at less than \$25 thousand and were primarily from operations too small to come within the scope of the 1939 Census. Available tabulations do not show the identification of these abrasives by type.

²Represents net shipments of crude and prepared quartz. Net shipments are equal to shipments and interplant transfers less crude minerals received from other establishments for preparation. Crude quartz accounts for less than 15 percent of the total quantity and less than 4 percent of the total value of net shipments of crude and prepared quartz.

³Represents quartz sold or used by producers, as reported by the Bureau of Mines, U. S. Department of Interior.

Table 6.—GENERAL STATISTICS FOR NATURAL ABRASIVES ESTABLISHMENTS IN THE UNITED STATES, CLASSIFIED BY EMPLOYMENT SIZE: 1954

(For explanation of column captions, see INTRODUCTION)

Number of employees in establishment	Number of establish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
United States, total.....	32	4,474	3,681	251	34	524	932	229	377
0.....	9	101	60	...	...	...	...	...	282
1-4.....	10	179	125	21	...	31	55	...	
5-9.....	3	486	550	21	3	40	90	8	
10-19.....	6	818	620	72	9	144	262	50	
20-49.....	3	2,890	2,326	137	22	309	525	171	95
50-99.....	1								

Table 7.—MONTHLY EMPLOYMENT IN THE NATURAL ABRASIVES INDUSTRIES, BY GEOGRAPHIC DIVISIONS: 1954

(For explanation of column captions, see INTRODUCTION)

Geographic division	Average employ- ment for the year ¹	Number of employees by month											
		January	February	March	April	May	June	July	August	September	October	November	December
United States, total....	285	262	283	286	316	313	281	272	273	282	292	294	276
East.....	211	200	202	194	221	218	219	206	212	217	218	220	205
South and West.....	74	62	81	92	95	95	62	66	61	65	74	74	71

¹Represents the sum of the average employment figures for the year as shown in the separate establishment reports. These are the averages shown in other tables of this report. Because of roundings, the sum of such average figures may differ slightly from the average of the January to December totals shown.

Table 8.—GENERAL STATISTICS FOR ESTABLISHMENTS CLASSIFIED BY OUTPUT PER MAN-HOUR: 1954

(Such statistics are not available for these industries)

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 9.—GENERAL STATISTICS FOR NATURAL ABRASIVES ESTABLISHMENTS CLASSIFIED BY RATIO OF WAGES AND SALARIES TO VALUE ADDED IN MINING, FOR THE UNITED STATES: 1954

(For explanation of column captions, see INTRODUCTION)

Ratio of wages and salaries to value added in mining	Number of establish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
United States, total.....	32	4,474	3,681	251	34	524	932	229	377
Less than 0.30.....	8	2,316	2,086	86	14	179	289	100	377
0.30-0.39.....	1								
0.40-0.49.....	8	1,936	1,453	141	19	296	552	128	
0.50-0.59.....	2								
0.60-0.69.....	...	...	...	...	...	...	...
0.70-0.79.....	1								
0.80-0.99.....	...	121	82	24	1	49	91	1	
1.00 and over.....	3								
Unclassified ¹	9	101	60	...	...	...	...	...

¹Represents establishments reporting less than \$500 for wages and salaries.

Table 10.—HORSEPOWER OF POWER EQUIPMENT USED IN THE NATURAL ABRASIVES INDUSTRIES, BY GEOGRAPHIC DIVISIONS: 1954

(For explanation of column captions, see INTRODUCTION)

Geographic division	Aggregate horsepower per production worker	Aggregate horsepower (prime movers and electric motors driven by purchased energy)				
		Total	Loading equipment	Transportation equipment		All other equipment
				Highway type	Other	
United States, total.....	57	14,373	2,282	3,222	2,142	6,727
East.....	49	9,402	1,697	1,524	1,950	4,231
South and West.....	84	4,971	585	1,698	192	2,496

Geographic division	Prime movers (horsepower)							Electric motors (horsepower)				
	Total	By type of equipment				By use		Total	By type of equipment		By source of energy	
		Loading equip-ment	Transportation equipment		All other equip-ment	Driv-ing gener-ators	Not driving gener-ators		Loading equip-ment	All other equip-ment ¹	Driven by pur-chased energy	Driven by energy generated at the establish-ment
			Highway type	Other								
United States, total.....	11,898	2,282	3,222	2,142	4,252	3,186	8,712	4,673	51	4,622	2,475	2,198
East.....	8,349	1,697	1,524	1,950	3,178	2,826	5,523	3,090	51	3,039	1,053	2,037
South and West.....	3,549	585	1,698	192	1,074	360	3,189	1,583	...	1,583	1,422	161

¹No transportation equipment driven by electric motors was reported.

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Table 11.—NUMBER OF POWER LOADING MACHINES IN THE NATURAL ABRASIVES INDUSTRIES IN THE UNITED STATES, 1954 AND 1939,
AND BY GEOGRAPHIC DIVISIONS: 1954

Type of loading equipment	United States		East	South and West
	1954	1939		
Surface loading equipment, total.....	22	35	22	...
By kind of power used				
Steam.....	...	26	...	...
Electric and Diesel-electric.....	1	3	1	...
Diesel.....	10	6	10	...
Gasoline and other.....	11		11	...
Power shovels, total ¹	10	10	10	...
By kind of power used				
Steam.....	...	4	...	...
Electric and Diesel-electric.....	1	3	1	...
Diesel.....	4	3	4	...
Gasoline and other.....	5		5	...
Dragline excavators, total ¹	1	3	1	...
By kind of power used				
Steam.....	...	3	...	...
Diesel.....	1	...	1	...
Scraper loaders (gasoline and other power), total.....	5	...	5	...
By rated horsepower				
10-25 inclusive.....	2	...	2	...
26-100 inclusive.....	3	...	3	...
Clamshell and orange peel loaders (steam power).....	...	1	...	...
Cranes and hoists, total.....	...	20	...	...
By kind of power used				
Steam.....	...	18	...	...
Diesel, gasoline, and other.....	...	2	...	...
All other types of equipment, total.....	6	1	6	...
By kind of power used				
Diesel.....	5	1	5	...
Gasoline and other.....	1		1	...
Underground loading equipment, total.....	4	...	...	4
By kind of power used				
Compressed air.....	2	...	...	2
Gasoline and other.....	2	...	...	2
Shovel loaders requiring a minimum working height of more than 8 feet (gasoline and other power).....	2	...	...	2
Scraper loaders (including slushers) (compressed air-operated with less than 10 rated horsepower).....	2	2

¹All with reported bucket capacity of less than three cubic yards.

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Table 12.—MATERIALS, SUPPLIES, FUELS, AND ELECTRIC ENERGY USED IN THE NATURAL ABRASIVES INDUSTRIES, BY GEOGRAPHIC DIVISIONS: 1954

(For explanation of line captions, see INTRODUCTION)

Item	Unit of measure for quantity	United States, total		East		South and West	
		Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
Crude minerals prepared, total.....	1,000 short tons..	199	xxx	72	xxx	127	xxx
Mined and prepared at the same establishment.....	....do.....	199	xxx 612	72 ...	xxx ...	127	xxx 204
Received from other establishments.....	....do.....						
Supplies.....	.....	xxx		xxx	408	xxx	
Fuels used, total.....	Million kwh equivalent.	84	192	73	162	11	30
Bituminous coal.....	1,000 short tons..	2	8	2	8	...	...
Distillate fuel oil.....	1,000 barrels.....	32	147	28	132	4	15
Manufactured and mixed gas.....	Million cu. ft....	23	7	23	7	...	...
Other fuels.....	.....	xxx	30	xxx	15	xxx	15
Electric energy purchased ¹	Million kwh.....	5	76	2	38	3	38

xxx Not applicable.

¹Less than 0.5 million kwh of electric energy was reported generated and used.

Table 13.—WATER USE IN THE NATURAL ABRASIVES INDUSTRIES, BY GEOGRAPHIC DIVISIONS: 1954

(For explanation of column captions, see INTRODUCTION)

Item	Number of production and development workers	Value added in mining (\$1,000)	Water intake (except mine water)			Water discharged (except mine water) (million gallons)	Mine water (million gallons)		Gross water use, including recirculation (million gallons)	Percent of total water intake (except mine water) by principal source		
			Million gallons	Million gallons per production worker ¹	Gallons per dollar value added		Used	Drained and discharged		Company surface water systems	Company ground water systems	Not specified
United States, total.	251	3,681	103	0.41	28	101	100	105	465	87	3	10
East.....	192	2,049	(D)	(D)	(D)	(D)	(D)	(D)	405	97	3	...
South and West.....	59	1,632	(D)	(D)	(D)	(D)	(D)	(D)	60	...	...	100

D Withheld to avoid disclosing figures of individual companies.

¹For computations of water intake per production worker, including mine water used, see table 3.

**CHEMICAL AND FERTILIZER
MINERAL MINING**

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Chemical and Fertilizer Mineral Mining

This report shows 1954 Census of Mineral Industries statistics for establishments classified in Industry Group 147, Chemical and Fertilizer Mineral Mining. The separate industries included in this group are as follows:

- 1472--Barite
- 1473--Fluorspar
- 1474--Potash, soda, and borate minerals
- 1475--Phosphate rock
- 1476--Rock salt
- 1477--Sulfur
- 1479--Chemical and fertilizer mineral mining, n.e.c.

Industry 1472, Barite, represents establishments primarily engaged in mining, milling, or otherwise preparing crude barite. Establishments engaged in grinding barite which do not include a mine are classified in the manufacturing Industry 3295, Minerals: Ground or Treated. Nearly 60 percent of all ground barite produced in 1954 was prepared at such establishments. Approximately one-half of the output at these establishments was produced from imported crude barite.

Industry 1473, Fluorspar, represents establishments primarily engaged in mining, milling, or otherwise preparing fluorspar.

Industry 1474, Potash, soda, and borate minerals, represents establishments primarily engaged in mining natural potassium, sodium, or boron compounds (other than common salt). Products of the industry include potash salts, sodium borates (borax, kernite, ulexite), sodium carbonates (soda ash, trona), sodium sulfates (Glauber's salt), and colemanite. Dry-lake brine and well-brine operations are included in this industry as well as establishments engaged in producing the specified minerals from underground and open-pit mines.

Industry 1475, Phosphate rock, represents establishments primarily engaged in mining, milling, drying, or otherwise preparing phosphate rock, including apatite. Establishments primarily engaged in the production of phosphoric acid, superphosphate, or other manufactured phosphate compounds or chemicals are classified in Major Group 28, Chemicals and Allied Products.

Industry 1476, Rock salt, represents establishments primarily engaged in mining, crushing, and screening rock salt. Establishments primarily engaged in manufacturing edible salt from rock salt and from natural or artificial brines are classified in the manufacturing Industry 2898, Salt. In 1954, such establishments shipped 3,906 thousand short tons of salt valued at \$71,636 thousand; as compared with 4,618 thousand short tons valued at \$35,658 thousand shipped by establishments in the rock salt industry. An additional 157 thousand tons of evaporated salt valued at \$4,812 thousand were shipped as secondary products by establishments in the rock salt industry. Another source of salt is brine produced and used as such. Separate Census statistics for salt from this source are not available since such brine salts are usually produced and consumed by the same manufacturing plant in the production of chemicals and other manufactured products. According to the Bureau of Mines, salt in brine accounted for 59 percent of the total quantity of all kinds of salt sold or used by producers in 1954.

Industry 1477, Sulfur, represents establishments primarily engaged in mining native sulfur, including the extraction of native sulfur at well operations and mining and beneficiating sulfur ore. The mining of pyrites for sulfur and the recovery of sulfur from beneficiation of natural gas are included in Industry 1479, Chemical and fertilizer mineral mining, not elsewhere classified.

Industry 1479, Chemical and fertilizer mineral mining, not elsewhere classified, represents establishments primarily engaged in mining, milling, or otherwise preparing chemical or fertilizer mineral raw materials, not elsewhere classified, such as arsenic minerals, lithium minerals (lepidolite, spodumene, and amblygonite), pyrites, natural mineral pigments, strontium minerals (celestite and strontianite), witherite, and guano and similar ancient natural fertilizers. Separate subindustry figures have been tabulated for "Pyrites" and "Miscellaneous chemical and fertilizer minerals."

The total value of shipments of the chemical and fertilizer mineral mining industries in 1954 was \$458 million, of which primary products of these industries amounted to \$445 million and secondary products, products purchased and resold without further processing, and receipts for services amounted to \$13 million. Of the total value of shipments for this group, the barite industry accounted for \$18 million; the fluorspar industry, \$15 million; the potash, soda, and borate minerals industry, \$108 million; the phosphate rock industry, \$118 million; the rock salt industry, \$36 million; the sulfur industry, \$141 million; and the chemical and fertilizer mineral mining, n.e.c., industry, \$22 million.

These figures represent gross value of shipments and some of them contain duplication due to the inclusion of the value of minerals transferred from one establishment to other establishments in the same industry for preparation. For the group as a whole, the cost of minerals received for preparation amounted to about \$39 million, or 8 percent, of the gross value of shipments of all industries in this group. (However, included in this cost of minerals received for preparation are freight and other transportation charges, where applicable. Separate figures on such charges are not available.) For the barite industry, the rock salt industry, and the sulfur industry, no receipts of minerals for preparation were reported. For the chemical and fertilizer mineral mining, n.e.c., industry, receipts of minerals for preparation were very small. For the fluorspar industry, the cost of minerals received for preparation amounted to \$1.7 million, or 11 percent, of the gross value of shipments. The cost of minerals received for preparation in the potash, soda, and borate minerals industry cannot be shown separately without approximately disclosing figures of individual companies. However, these receipts amounted to less than 2 percent of the gross value of shipments of this industry. For the phosphate rock industry, the cost of minerals received for preparation totaled \$35.4 million, or 30 percent, of the gross value of shipments. Separate figures on gross and net shipments are shown in Tables 1 and 5B of this report.

The 1954 report forms used by the Bureau of the Census for the potash, soda, and borate minerals industry, the sulfur industry, and pyrites establishments and recovered elemental sulfur establishments in the chemical and fertilizer mineral mining, n.e.c., industry also provided the information required by the Bureau of Mines for its annual statistics on these commodities.

A comparison of the figures tabulated by the two Bureaus on these commodities is shown in the following table:

Product	Unit of measure	Quantity produced	
		Bureau of the Census	Bureau of Mines
Prepared potassium salts..	1,000 short tons	3,323	3,322
Natural sodium carbonates (except borax).....	.....do.....	¹ 527	² 527
Natural sodium sulfates...	.....do.....	¹ 251	² 250
Boron minerals.....	.....do.....	³ 556	² 778
Native sulfur and sulfur ore.....	1,000 long tons	5,729	5,729
Pyrites.....	.....do.....	912	909
Recovered elemental sulfur	.....do.....	366	361

¹Represents shipments.

²Represents sold or used by producers.

³Represents net shipments.

As the table indicates, there are no differences (except for those caused by rounding of figures and tabulating procedures) between the figures compiled by the two Bureaus on prepared potassium salts, natural sodium carbonates, natural sodium sulfates, native sulfur and sulfur ore, pyrites, and recovered elemental sulfur. For boron minerals, Bureau of the Census quantity figures represent net shipments (gross shipments less minerals received for preparation) whereas Bureau of Mines quantity figures represent gross shipments. Moreover, Bureau of the Census figures for value of shipments of boron minerals represent value of net shipments of crude boron minerals and boron minerals prepared by crushing, grinding, magnetic separation, drying, fusing, evaporation, and carbonation. Bureau of Mines figures for value of shipments represent value of gross shipments of boron minerals prepared by the methods described above and, in addition, include the value of shipments of refined boron compounds, such as refined borax, boric acid, and ammonium borate, obtained from crude or prepared boron minerals. The refining of crude or prepared boron minerals to obtain boron compounds is classified by Census in the manufacturing Industry 2819, Industrial inorganic chemicals, n.e.c.

Figures on other products in this report were collected independently by the Bureau of the Census and the Bureau of Mines. There are some differences, mostly small, between the figures compiled by the two Bureaus for these products as shown in the following table:

Product	Unit of measure	Quantity produced	
		Bureau of the Census	Bureau of Mines
Barite (crude).....	1,000 short tons	960	947
Fluorspar (crushed, ground, and flotation concentrates).....	.....do.....	253	248
Phosphate rock.....	1,000 long tons	¹ 13,386	² 13,044
Rock salt.....	1,000 short tons	³ 4,879	² 4,825

¹Represents net shipments.

²Represents sold or used by producers.

³Represents shipments.

As the table indicates, the figures compiled by the two Bureaus on barite, fluorspar, and rock salt differ by 2 percent or less. For phosphate rock, the amount of the difference between the two figures is less than 3 percent. The reasons for these differences are summarized below:

1. The Bureau of the Census collects information on production and shipments and calculates net shipments (as for phosphate rock) whereas the Bureau of Mines generally obtains figures on products sold or used.

2. A respondent may report different figures for the same product to the two Bureaus.

3. The Bureau of the Census may have better coverage of certain industries than the Bureau of Mines.

Direct comparisons between the figures obtained by the two Bureaus on miscellaneous chemical and fertilizer minerals cannot be shown. However, the differences between the figures for these products were relatively small.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 1.—COMPARATIVE STATISTICS FOR THE CHEMICAL AND FERTILIZER MINERAL MINING INDUSTRIES

(For explanation of line captions and for statement on the minimum

Item	Chemical and fertilizer mineral mining industries, total		Barite industry					
	1954	1939 ⁴	1954	1939	1929	1919 ⁴	1909	1902
1 Number of operating companies.....	243	5176	36	37	(NA)	(NA)	23	42
2 Number of establishments.....	317	(NA)	44	(NA)	(NA)	89	(NA)	(NA)
3 Number of mines.....	298	197	45	47	44	98	42	49
4 Number of preparation plants.....	185	171	35	32	(NA)	5	(NA)	(NA)
5 Shipments of primary products ⁶.....1,000 short tons ⁷ ..	xxx	xxx	903	348	272	(NA)	(NA)	62
6 Value of shipments, total ⁸.....\$1,000..	457,586	(NA)	18,269	(NA)	(NA)	1,592	225	(NA)
7 Minerals received from other establishments for preparation ⁹ .do....	38,838	(NA)	...	(NA)	(NA)	18	...	(NA)
8 Net shipments, total ⁸.....do....	418,748	74,089	18,269	2,065	1,802	1,574	225	203
9 Primary products ⁶.....do....	405,640	74,089	18,269	2,010	1,794	1,556	225	(NA)
10 Other products and services.....do....	13,108			55	8	18		(NA)
11 Value added in mining.....do....	340,520	61,682	14,051	1,652	1,489	1,276	183	194
12 Number of persons engaged, total.....	21,821	12,324	1,160	870	924	1,071	282	364
13 Production and development workers.....	17,295	10,586	1,036	792	844	919	240	10336
14 All other employees.....	4,314	1,645	89	62	71	59	19	28
15 Proprietors and firm members.....	212	93	35	16	9	93	23	(NA)
16 Performing manual labor.....do....	129	24	18	4	(NA)	3	11	(NA)
17 Man-hours worked by production and development workers, total..1,000..	36,418	21,062	2,403	1,439	(NA)	(NA)	(NA)	(NA)
18 At mines and well operations, total.....do....	21,380	112,201	1,201	11889	(NA)	(NA)	(NA)	(NA)
19 Underground.....do....	7,561	113,066	469	1157	(NA)	(NA)	(NA)	(NA)
20 Open-pit or quarry.....do....	4,050	113,737	674	11687	(NA)	(NA)	(NA)	(NA)
21 Well operations.....do....	3,369			...	(NA)	(NA)	(NA)	(NA)
22 Surface (including mine shops and yards).....do....	6,400	115,398	58	11145	(NA)	(NA)	(NA)	(NA)
23 At preparation plants.....do....	15,038	118,670	1,202	11538	(NA)	(NA)	(NA)	(NA)
24 Tons of primary products per man-hour ⁷	xxx	xxx	0.38	0.24	(NA)	(NA)	(NA)	(NA)
25 Principal expenses designated below, total.....\$1,000..	228,044	29,677	7,854	1,165	1,147	1,195	152	154
26 Wages of production and development workers.....do....	73,324	12,230	3,451	597	648	769	90	130
27 Salaries of all other employees.....do....	26,067	5,040	423	155	186	110	20	15
28 Minerals received for preparation.....do....	38,838	(NA)	...	(NA)	(NA)	18	...	(NA)
29 Supplies.....do....	55,156	6,944	2,251	246	155	219	22	8
30 Fuel.....do....	15,921	3,751	327	94	58	50	6	1
31 Purchased electric energy.....do....	9,018	1,442	552	52	76	19		
32 Contract work.....do....	9,720	270	850	21	24	10	14	1
33 Purchased machinery installed.....do....	26,054	(NA)	1,250	(NA)	154	(NA)	(NA)	(NA)
34 Capital expenditures, total.....do....	37,641	(NA)	1,012	(NA)	(NA)	(NA)	(NA)	(NA)
35 Development and exploration of mineral property.....do....	5,152	(NA)	24	(NA)	12	21	(NA)	(NA)
36 Preparation plant construction.....do....	4,454	775	61	31	(NA)	(NA)	(NA)	(NA)
37 Other construction.....do....	5,207				(NA)	(NA)	(NA)	(NA)
38 New machinery and equipment.....do....	22,499	1,996	853	57	(NA)	(NA)	(NA)	(NA)
39 Used plant and equipment.....do....	329	240	57	39	(NA)	(NA)	(NA)	(NA)
40 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	927,967	274,817	67,526	10,452	6,066	3,029	262	110
41 Per production worker.....	54	26	65	13	7	3	1	...
42 Prime movers.....	489,417	162,931	40,855	8,303	2,698	2,049	262	110
43 Electric motors driven by purchased energy.....	438,550	111,886	26,671	2,149	3,368	980	...	...
44 Horsepower rating of electric motors driven by energy generated and used at same establishment.....	165,112	93,748	231	102	113	225	...	...
45 Energy used.....million kwh equivalent	23,077	8,329	269	56	84	50	(NA)	(NA)
46 Coal.....1,000 short tons..	49	135	1	3	9	6	(NA)	(NA)
47 Fuel oils.....1,000 barrels..	2,937	1,528	17	8	3	...	(NA)	(NA)
48 Gas (natural and manufactured).....million cu. ft..	53,335	15,487	484	7	...	...	(NA)	(NA)
49 Electric energy purchased.....million kwh..	1,023	158	47	3	6	(NA)	(NA)	(NA)
50 Electric energy generated and used.....do....	409	176	...	...	...	(NA)	(NA)	(NA)

See footnotes at end of table.

IN THE UNITED STATES: 1954, 1939, 1929, 1919, 1909, 1902, 1889, 1880, 1870, and 1860

size of establishments included for each year, see INTRODUCTION)

Barite industry—Continued				Fluorspar industry							Potash, soda, and borate minerals industry ¹			
1889	1880	1870	1860	1954	1939 ⁴	1929 ⁴	1919	1909	1902	1889	1954	1939 ⁴	1902	
(NA)	(NA)	(NA)	(NA)	94	60	(NA)	(NA)	16	18	(NA)	15	15	6	1
(NA)	(NA)	1	1	104	(NA)	(NA)	54	(NA)	(NA)	(NA)	20	(NA)	(NA)	2
(NA)	6	(NA)	(NA)	105	61	36	72	18	22	(NA)	20	17	6	3
(NA)	(NA)	(NA)	(NA)	33	53	(NA)	25	(NA)	(NA)	(NA)	16	13	(NA)	4
21	4	(NA)	(NA)	265	202	156	(NA)	(NA)	49	10	4,606	787	19	5
(NA)	(NA)	(NA)	(NA)	15,461	(NA)	(NA)	3,335	289	(NA)	(NA)	107,757	(NA)	(NA)	6
(NA)	(NA)	(NA)	(NA)	1,728	(NA)	(NA)	...	...	(NA)	(NA)	(D)	(NA)	(NA)	7
106	37	100	25	13,733	3,397	2,858	3,335	289	276	(NA)	(D)	17,031	2,384	8
(NA)	(NA)	(NA)	(NA)	12,774	3,312	2,825	3,287	289	(NA)	(NA)	105,452	(NA)	(NA)	9
(NA)	(NA)	(NA)	(NA)	959	85	33	48	{	(NA)	(NA)	2,305	(NA)	(NA)	10
98	37	94	20	9,914	2,655	2,038	2,392	228	245	41	82,213	13,330	2,170	11
215	63	110	40	1,374	1,445	1,184	1,279	334	311	101	6,323	2,444	167	12
204 11 }	63	110	40	{ 997 263	1,287 109	1,053 118	1,124 119	296 27	¹⁰ 269 42	97 4	4,738 1,584	2,049 389	¹⁰ 153 14	13 14
(NA)	(NA)	(NA)	(NA)	114	49	13	36	11	(NA)	(NA)	1	6	(NA)	15
(NA)	(NA)	(NA)	(NA)	82	13	(NA)	7	5	(NA)	(NA)	...	1	(NA)	16
(NA)	(NA)	(NA)	(NA)	2,001	2,568	(NA)	(NA)	(NA)	(NA)	(NA)	9,381	4,388	(NA)	17
(NA)	(NA)	(NA)	(NA)	1,141	¹¹ 1,477	(NA)	(NA)	(NA)	(NA)	(NA)	3,997	¹¹ 879	(NA)	18
(NA)	(NA)	(NA)	(NA)	826	¹¹ 1,124	(NA)	(NA)	(NA)	(NA)	(NA)	3,045	¹¹ 555	(NA)	19
(NA)	(NA)	(NA)	(NA)	116	¹¹ 5	(NA)	(NA)	(NA)	(NA)	(NA)	...	¹¹ 44	(NA)	20
(NA)	(NA)	(NA)	(NA)	...	...	(NA)	(NA)	(NA)	(NA)	(NA)	...	...	(NA)	21
(NA)	(NA)	(NA)	(NA)	199	¹¹ 348	(NA)	(NA)	(NA)	(NA)	(NA)	952	¹¹ 280	(NA)	22
(NA)	(NA)	(NA)	(NA)	860	¹¹ 1,007	(NA)	(NA)	(NA)	(NA)	(NA)	5,384	¹¹ 3,471	(NA)	23
(NA)	(NA)	(NA)	(NA)	0.13	0.08	(NA)	(NA)	(NA)	(NA)	(NA)	0.49	0.18	(NA)	24
63	8	84	17	10,601	2,104	2,222	2,434	257	168	19	59,649	8,457	347	25
55	8	78	12	{ 3,451 1,415	1,134 228	1,112 290	1,196 295	170 26	110 27	14	{ 23,028 10,411	3,445 1,311	115 18	26 27
(NA)	(NA)	(NA)	(NA)	1,728	(NA)	(NA)	...	...	(NA)	(NA)	{ 17,329	(NA)	(NA)	28
8	...	6	5	{ 2,195 495	506 118	626 153	634 163	35 25	31	5	{ 5,594 1,641	2,036 1,425	214 (NA)	29 30
(NA)	(NA)	(NA)	(NA)	513	61	24	...	...	...	(NA)	1,646	198	(NA)	31
(NA)	(NA)	(NA)	(NA)	804	57	17	146	1	...	(NA)	1,646	42	(NA)	32
(NA)	(NA)	(NA)	(NA)	561	(NA)	140	(NA)	(NA)	(NA)	(NA)	8,390	(NA)	(NA)	33
(NA)	(NA)	(NA)	(NA)	749	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	9,056	(NA)	(NA)	34
(NA)	(NA)	(NA)	(NA)	140	(NA)	157	393	(NA)	(NA)	(NA)	525	(NA)	(NA)	35
(NA)	(NA)	(NA)	(NA)	81	{ 106	{ (NA)	(NA)	(NA)	(NA)	(NA)	310	{ 377	{ (NA)	36
(NA)	(NA)	(NA)	(NA)	64	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	1,289	(NA)	(NA)	37
(NA)	(NA)	(NA)	(NA)	429	429	(NA)	(NA)	(NA)	(NA)	(NA)	6,866	675	(NA)	38
(NA)	(NA)	(NA)	(NA)	35	27	(NA)	(NA)	(NA)	(NA)	(NA)	66	16	(NA)	39
(NA)	(NA)	70	(NA)	49,351	20,506	6,513	7,138	1,189	669	(NA)	194,843	60,666	338	40
(NA)	(NA)	2	(NA)	49	16	6	6	4	2	(NA)	41	30	2	41
(NA)	(NA)	70	(NA)	27,977	15,956	6,182	7,138	1,189	669	(NA)	111,656	48,792	338	42
(NA)	(NA)	(NA)	(NA)	21,374	4,550	331	...	...	...	(NA)	83,187	11,874	...	43
(NA)	(NA)	(NA)	(NA)	8,676	2,966	2,830	729	140	25	(NA)	89,927	31,495	1	44
(NA)	(NA)	(NA)	(NA)	380	358	387	328	(NA)	(NA)	(NA)	5,812	2,231	(NA)	45
(NA)	(NA)	(NA)	(NA)	24	45	49	42	(NA)	(NA)	(NA)	1	1	(NA)	46
(NA)	(NA)	(NA)	(NA)	65	2	2	...	(NA)	(NA)	(NA)	1,667	1,051	(NA)	47
(NA)	(NA)	(NA)	(NA)	109	7	...	...	(NA)	(NA)	(NA)	8,820	1,309	(NA)	48
(NA)	(NA)	(NA)	(NA)	34	3	1	(NA)	(NA)	(NA)	(NA)	195	22	(NA)	49
(NA)	(NA)	(NA)	(NA)	14	6	4	(NA)	(NA)	(NA)	(NA)	267	105	(NA)	50

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 1.—COMPARATIVE STATISTICS FOR THE CHEMICAL AND FERTILIZER MINERAL MINING INDUSTRIES

Item	Phosphate rock industry					
	1954	1939 ⁴	1935	1929	1919 ⁴	1909
1 Number of operating companies.....	53	33	(NA)	(NA)	(NA)	56
2 Number of establishments.....	75	(NA)	(NA)	(NA)	48	(NA)
3 Number of mines.....	73	40	(NA)	33	69	186
4 Number of preparation plants.....	54	50	(NA)	(NA)	20	(NA)
5 Shipments of primary products ⁶.....1,000 short tons ⁷ ..	13,387	3,958	(NA)	3,829	1,989	(NA)
6 Value of shipments, total ⁸.....\$1,000..	117,976	(NA)	(NA)	(NA)	10,300	10,781
7 Minerals received from other establishments for preparation ⁹ .do...	35,393	(NA)	(NA)	(NA)	...	...
8 Net shipments, total ⁸.....do...	82,583	12,286	11,423	13,044	10,300	10,781
9 Primary products ⁶.....do...	82,516	12,286	11,420	13,044	10,293	10,781
10 Other products and services.....do...	67	...	3	...	7	...
11 Value added in mining.....do...	62,089	9,003	8,442	9,497	6,155	8,265
12 Number of persons engaged, total.....	5,484	3,766	2,912	3,508	4,761	8,320
13 Production and development workers.....	4,579	3,372	2,638	3,201	4,373	7,923
14 All other employees.....	861	382	274	305	374	378
15 Proprietors and firm members.....	44	12	(NA)	2	14	19
16 Performing manual labor.....	21	...	(NA)	(NA)	...	1
17 Man-hours worked by production and development workers, total..1,000..	10,119	6,680	(NA)	(NA)	(NA)	(NA)
18 At mines and well operations, total.....do...	5,192	114,203	(NA)	(NA)	(NA)	(NA)
19 Underground.....do...	691	11,162	(NA)	(NA)	(NA)	(NA)
20 Open-pit or quarry.....do...	2,941	11,913	(NA)	(NA)	(NA)	(NA)
21 Well operations.....do...	...	...	(NA)	(NA)	(NA)	(NA)
22 Surface (including mine shops and yards).....do...	1,560	112,128	(NA)	(NA)	(NA)	(NA)
23 At preparation plants.....do...	4,927	112,373	(NA)	(NA)	(NA)	(NA)
24 Tons of primary products per man-hour ⁷	1.32	0.59	(NA)	(NA)	(NA)	(NA)
25 Principal expenses designated below, total.....\$1,000..	80,598	7,012	5,438	7,629	8,807	6,352
26 Wages of production and development workers.....do...	17,089	2,871	1,807	3,304	3,901	3,240
27 Salaries of all other employees.....do...	4,440	858	650	778	761	596
28 Minerals received for preparation.....do...	35,393	(NA)	(NA)	(NA)	...	...
29 Supplies.....do...	11,917	1,503	1,520	1,543	2,162	900
30 Fuel.....do...	3,348	826	740	891	1,740	...
31 Purchased electric energy.....do...	5,507	931	721	1,092	79	1,364
32 Contract work.....do...	2,904	23	(NA)	21	164	252
33 Purchased machinery installed.....do...	8,156	(NA)	(NA)	805	(NA)	(NA)
34 Capital expenditures, total.....do...	11,338	(NA)	(NA)	(NA)	(NA)	(NA)
35 Development and exploration of mineral property.....do...	1,083	(NA)	(NA)	190	353	(NA)
36 Preparation plant construction.....do...	2,310	109	(NA)	(NA)	(NA)	(NA)
37 Other construction.....do...	174	...	(NA)	(NA)	(NA)	(NA)
38 New machinery and equipment.....do...	7,662	425	(NA)	(NA)	(NA)	(NA)
39 Used plant and equipment.....do...	109	46	(NA)	(NA)	(NA)	(NA)
40 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	356,544	112,531	(NA)	104,146	49,639	50,981
41 Per production worker.....	78	33	(NA)	33	11	6
42 Prime movers.....	116,564	35,510	(NA)	46,518	46,976	50,881
43 Electric motors driven by purchased energy.....	239,980	77,021	(NA)	57,628	2,663	100
44 Horsepower rating of electric motors driven by energy generated and used at same establishment.....	16,358	33,341	(NA)	30,966	33,107	2,138
45 Energy used.....million kwh equivalent..	2,990	1,513	(NA)	1,648	2,296	(NA)
46 Coal.....1,000 short tons..	21	84	(NA)	72	121	(NA)
47 Fuel oils.....1,000 barrels..	1,111	436	(NA)	575	657	(NA)
48 Gas (natural and manufactured).....million cu. ft..	613	...	(NA)	...	...	(NA)
49 Electric energy purchased.....million kwh..	652	114	(NA)	110	(NA)	(NA)
50 Electric energy generated and used.....do...	49	32	(NA)	51	(NA)	(NA)

See footnotes at end of table.

CHEMICAL AND FERTILIZER MINERAL MINING

14H-7

IN THE UNITED STATES: 1954, 1939, 1929, 1919, 1909, 1902, 1889, 1880, 1870, and 1860—Continued

Phosphate rock industry--Continued			Rock salt industry		Sulfur industry ²						
1902	1889	1880	1954	1939	1954	1939 ⁴	1929 ⁴	1919 ⁴	1909	1902	1889
87	(NA)	(NA)	11	17	12	8	(NA)	(NA)	4	18	(NA)
(NA)	(NA)	21	15	(NA)	20	(NA)	(NA)	4	(NA)	(NA)	(NA)
115	(NA)	(NA)	15	17	16	10	10	4	4	23	1
(NA)	(NA)	(NA)	13	17	5	2	(NA)	1	(NA)	(NA)	(NA)
1,549	550	211	4,618	2,047	5,510	2,091	2,328	(NA)	(NA)	196	1
(NA)	(NA)	(NA)	35,658	(NA)	140,685	(NA)	(NA)	17,936	4,432	(NA)	(NA)
(NA)	(NA)	(NA)	...	(NA)	...	(NA)	(NA)	...	...	(NA)	(NA)
4,923	2,938	1,124	35,658	6,896	140,685	31,812	37,126	17,936	4,432	918	8
(NA)	(NA)	(NA)	30,769	6,896	140,661	31,802	37,032	17,934	4,432	(NA)	(NA)
(NA)	(NA)	(NA)	4,889		24	10	94	2		(NA)	(NA)
3,967	2,505	(NA)	30,013	5,721	124,166	28,863	29,302	13,720	3,476	697	6
6,362	5,011	2,475	1,928	1,565	4,095	2,025	2,505	1,273	418	1,024	12
105,971	4,901	2,475	1,659	1,380	3,077	1,517	2,199	1,129	366	10970	10
391	110		266	181	1,018	507	305	144	52	54	2
(NA)	(NA)	(NA)	3	4	...	1	1	...	...	(NA)	(NA)
(NA)	(NA)	(NA)	1	4	...	1	(NA)	...	...	(NA)	(NA)
(NA)	(NA)	(NA)	3,861	2,608	6,229	3,031	(NA)	(NA)	(NA)	(NA)	(NA)
(NA)	(NA)	(NA)	2,078	111,446	6,209	3,026	(NA)	(NA)	(NA)	(NA)	(NA)
(NA)	(NA)	(NA)	1,500	111,020	...	...	(NA)	(NA)	(NA)	(NA)	(NA)
(NA)	(NA)	(NA)	45	1119	33	...	(NA)	(NA)	(NA)	(NA)	(NA)
(NA)	(NA)	(NA)	...	...	3,369	101,037	(NA)	(NA)	(NA)	(NA)	(NA)
(NA)	(NA)	(NA)	533	11407	2,807	101,989	(NA)	(NA)	(NA)	(NA)	(NA)
(NA)	(NA)	(NA)	1,783	111,114	20	104	(NA)	(NA)	(NA)	(NA)	(NA)
(NA)	(NA)	(NA)	1.20	0.78	0.88	0.69	(NA)	(NA)	(NA)	(NA)	(NA)
3,241	1,642	(NA)	14,868	3,149	43,747	7,405	12,262	6,311	1,391	670	5
1,930	1,209	470	7,117	1,434	14,619	2,545	3,483	1,682	325	399	2
355	(NA)	(NA)	1,454	540	6,567	1,911	955	413	110	50	1
(NA)	(NA)	(NA)	...	(NA)	...	(NA)	(NA)	...	...	(NA)	(NA)
799	317	(NA)	5,351	868	14,055	1,690	3,340	1,452	248	217	2
157	116	(NA)	335	153	5,629	1,128	4,433	2,764	708	4	(NA)
(NA)	(NA)	(NA)	367	151	44	15	41	...	...	...	31
(NA)	(NA)	(NA)	244	3	2,833	116	10	...	...	...	32
(NA)	(NA)	(NA)	1,534	(NA)	2,803	(NA)	1,634	(NA)	(NA)	(NA)	(NA)
(NA)	(NA)	(NA)	2,186	(NA)	8,845	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
(NA)	(NA)	(NA)	53	(NA)	3,069	(NA)	325	56	(NA)	(NA)	(NA)
(NA)	(NA)	(NA)	704	149	48	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
(NA)	(NA)	(NA)	169		3,062	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
(NA)	(NA)	(NA)	1,259	143	2,635	252	(NA)	(NA)	(NA)	(NA)	(NA)
(NA)	(NA)	(NA)	1	69	31	44	(NA)	(NA)	(NA)	(NA)	(NA)
14,229	50	(NA)	47,871	23,002	159,128	45,135	33,932	15,291	3,114	6,305	(NA)
2	...	(NA)	29	17	52	30	15	14	9	6	(NA)
14,229	50	(NA)	17,454	9,391	155,690	44,700	31,643	15,291	3,114	6,255	(NA)
...	(NA)	(NA)	30,417	13,611	3,438	435	2,289	...	...	50	(NA)
500	(NA)	(NA)	7,489	7,741	42,411	18,103	13,528	1,284	...	80	(NA)
(NA)	(NA)	(NA)	549	336	12,854	4,129	7,318	1,858	(NA)	(NA)	(NA)
(NA)	(NA)	(NA)	1	1	...	...	...	...	(NA)	(NA)	(NA)
(NA)	(NA)	(NA)	21	20	44	11	122	1,088	(NA)	(NA)	(NA)
(NA)	(NA)	(NA)	1,522	858	41,383	13,306	23,073	...	(NA)	(NA)	(NA)
(NA)	(NA)	(NA)	29	11	5	2	3	(NA)	(NA)	(NA)	(NA)
(NA)	(NA)	(NA)	6	8	73	25	15	(NA)	(NA)	(NA)	(NA)

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 1.—COMPARATIVE STATISTICS FOR THE CHEMICAL AND FERTILIZER MINERAL MINING INDUSTRIES

Item	Chemical and fertilizer mineral mining, not elsewhere classified, industry				
	Total 1954	Pyrites subindustry ²			
		1954	1939	1919 ⁴	1909 ⁴
1 Number of operating companies.....	36	5	6	(NA)	11
2 Number of establishments.....	39	5	(NA)	17	(NA)
3 Number of mines.....	24	3	5	18	12
4 Number of preparation plants.....	29	5	4	12	(NA)
5 Shipments of primary products ⁶.....1,000 short tons ⁷ ..	xxx	870	170	(NA)	(NA)
6 Value of shipments, total ⁸.....\$1,000..	21,780	12,001	(NA)	2,409	677
7 Minerals received from other establishments for preparation ⁹ .do....	(D)	...	(NA)	...	...
8 Net shipments, total ⁸.....do....	(D)	12,001	602	2,409	677
9 Primary products ⁶.....do....	(D)	12,001	576	2,215	677
10 Other products and services.....do....	(D)	...	26	194	...
11 Value added in mining.....do....	18,074	9,855	458	1,484	450
12 Number of persons engaged, total.....	1,457	903	209	1,268	1,164
13 Production and development workers.....	1,209	783	189	1,172	1,115
14 All other employees.....	233	120	15	96	45
15 Proprietors and firm members.....	15	...	5	...	4
16 Performing manual labor.....	7	...	1	...	...
17 Man-hours worked by production and development workers, total..1,000..	2,424	1,447	348	(NA)	(NA)
18 At mines and well operations, total.....do....	1,562	1,140	11281	(NA)	(NA)
19 Underground.....do....	1,030	972	11148	(NA)	(NA)
20 Open-pit or quarry.....do....	241	...	1132	(NA)	(NA)
21 Well operations.....do....	...	...	...	(NA)	(NA)
22 Surface (including mine shops and yards).....do....	291	168	11101	(NA)	(NA)
23 At preparation plants.....do....	862	307	1163	(NA)	(NA)
24 Tons of primary products per man-hour ⁷	xxx	0.60	0.49	(NA)	(NA)
25 Principal expenses designated below, total.....\$1,000..	10,727	6,354	385	2,495	690
26 Wages of production and development workers.....do....	4,569	2,971	204	1,385	408
27 Salaries of all other employees.....do....	1,357	708	37	185	55
28 Minerals received for preparation.....do....	...	...	(NA)	...	...
29 Supplies.....do....	3,775	2,408	95	616	152
30 Fuel.....do....	193	22	7	163	...
31 Purchased electric energy.....do....	394	211	34	59	72
32 Contract work.....do....	439	34	8	87	3
33 Purchased machinery installed.....do....	3,360	83	(NA)	(NA)	(NA)
34 Capital expenditures, total.....do....	4,455	612	(NA)	(NA)	(NA)
35 Development and exploration of mineral property.....do....	258	56	(NA)	146	(NA)
36 Preparation plant construction.....do....	940	372	3	(NA)	(NA)
37 Other construction.....do....	432	101	...	(NA)	(NA)
38 New machinery and equipment.....do....	2,795	83	15	(NA)	(NA)
39 Used plant and equipment.....do....	30	...	...	(NA)	(NA)
40 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	52,704	29,186	2,525	7,338	5,758
41 Per production worker.....	44	37	13	6	5
42 Prime movers.....	19,221	3,280	279	3,224	4,850
43 Electric motors driven by purchased energy.....	33,483	25,906	2,246	4,114	908
44 Horsepower rating of electric motors driven by energy generated and used at same establishment.....	...	...	...	3,696	20
45 Energy used.....million kwh equivalent..	223	56	6	248	(NA)
46 Coal.....1,000 short tons..	1	1	1	32	(NA)
47 Fuel oils.....1,000 barrels..	12	1	...	...	(NA)
48 Gas (natural and manufactured).....million cu. ft..	404	4	...	...	(NA)
49 Electric energy purchased.....million kwh..	61	43	3	(NA)	(NA)
50 Electric energy generated and used.....do....	...	...	...	(NA)	(NA)

NA Not available.

D Withheld to avoid approximately disclosing figures for individual companies.

¹For 1929, 2 borate minerals establishments were reported, and for 1909, 3 were reported, but separate figures cannot be shown for them. For 1902, represents borax only.²For 1929 and 1902, figures for the pyrites subindustry are included with those for the sulfur industry.³For 1954 represents the following establishments: miscellaneous sulfur bearing minerals, 12; mineral pigments, 10; spodumene, 3; mineral soil builders, 2; bat guano, 2; lignaceous shale, 1; bismuthinite, 1; and 3 nonproducing establishments searching for chemical and fertilizer minerals not specified by type. For 1939, 2 lithium minerals mines were reported, but separate statistics for them cannot be shown. Statistics for these mines are included with those for graphite and other miscellaneous nonmetallic minerals mines, see the report Miscellaneous Nonmetallic Minerals (Except Fuels). For 1929, 4 lithium minerals and 4 mineral pigments establishments were reported, but separate statistics cannot be shown for them. For 1902, represents 3 lithium minerals mines and 35 mineral pigments mines. In all other years, represents mineral pigments operations only.⁴Excludes nonproducing operations as follows: For 1939, 1 fluorspar mine, 2 mines and 1 preparation plant in the potash, soda, and borate minerals industry, 1 mine and 1 preparation plant in the phosphate rock industry, and 3 sulfur mines. For 1929, 4 fluorspar and 2 sulfur establishments. For 1919, 1 barite, 1 phosphate rock, 1 sulfur, and 1 pyrites establishment. For 1909, 1 pyrites, 1 lithium minerals, and 2 mineral pigments establishments.

CHEMICAL AND FERTILIZER MINERAL MINING

14H-9

IN THE UNITED STATES: 1954, 1939, 1929, 1919, 1909, 1902, 1889, 1880, 1870, and 1860—Continued

Chemical and fertilizer mineral mining, not elsewhere classified, industry—Continued								
Pyrites subindustry ² —Continued		Miscellaneous chemical and fertilizer minerals subindustry ³						
1889	1880	1954	1919	1909 ⁴	1902	1889	1880	1810
(NA)	1	31	(NA)	23	38	(NA)	(NA)	4
(NA)	(NA)	34	23	(NA)	(NA)	(NA)	(NA)	(NA)
1	1	21	23	26	38	(NA)	7	(NA)
(NA)	(NA)	24	11	(NA)	(NA)	(NA)	(NA)	(NA)
94	2	xxx	(NA)	(NA)	xxx	36	4	(NA)
(NA)	(NA)	9,779	481	151	(NA)	(NA)	(NA)	(NA)
(NA)	(NA)	(D)	...	...	(NA)	(NA)	(NA)	(NA)
202	(NA)	(D)	481	151	387	464	136	15
(NA)	(NA)	(D)	461	151	(NA)	(NA)	(NA)	(NA)
(NA)	(NA)	(D)	20	151	(NA)	(NA)	(NA)	(NA)
137	(NA)	8,219	366	108	328	370	134	13
237	6	539	223	190	326	395	100	12
230	6	426	185	153	¹⁰ 262	387	100	12
7	(NA)	98	25	17	64	8		12
(NA)	(NA)	15	13	20				15
(NA)	(NA)	7	4	2				16
(NA)	(NA)	977	(NA)	(NA)				17
(NA)	(NA)	422	(NA)	(NA)				18
(NA)	(NA)	58	(NA)	(NA)	(NA)	(NA)	(NA)	19
(NA)	(NA)	241	(NA)	(NA)				20
(NA)	(NA)	...	(NA)	(NA)				21
(NA)	(NA)	123	(NA)	(NA)				22
(NA)	(NA)	555	(NA)	(NA)				23
(NA)	(NA)	xxx	(NA)	(NA)				24
133	1	4,258	329	104	223	230	26	8
58	1	1,598	174	44	110	130	24	6
10	(NA)	534	40	17	54	6	(NA)	(NA)
(NA)	(NA)	1,367	...	...	(NA)	(NA)	(NA)	(NA)
42	...	171	83	15	59	85	2	2
23	(NA)	183	28	8	(NA)	(NA)	(NA)	(NA)
(NA)	(NA)	405	3	20	(NA)	(NA)	(NA)	(NA)
(NA)	(NA)	3,277	1		...	9	(NA)	(NA)
(NA)	(NA)	3,843	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
(NA)	(NA)	202	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
(NA)	(NA)	568	5	(NA)	(NA)	(NA)	(NA)	(NA)
(NA)	(NA)	331	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
(NA)	(NA)	2,712	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
(NA)	(NA)	30	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
(NA)	(NA)	23,518	1,630	849	1,840	(NA)	158	70
(NA)	(NA)	55	9	6	7	(NA)	(NA)	(NA)
(NA)	(NA)	15,941	1,460	849	1,840	(NA)	158	70
(NA)	(NA)	7,577	170	...	...	(NA)	...	...
(NA)	(NA)	...	...	...	...	(NA)	...	...
(NA)	(NA)	167	40	(NA)	(NA)	(NA)	7	(NA)
(NA)	(NA)	...	5	(NA)	(NA)	(NA)	(NA)	(NA)
(NA)	(NA)	11	...	(NA)	(NA)	(NA)	(NA)	(NA)
(NA)	(NA)	400	...	(NA)	(NA)	(NA)	(NA)	(NA)
(NA)	(NA)	18	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
(NA)	(NA)	...	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)

⁵Represents the sum of the figures shown for the separate industries or subindustries and probably includes some duplication due to the same company operating in more than one industry.

⁶Represents the product indicated by the name of the industry or subindustry.

⁷Represents long tons for phosphate rock, sulfur, and pyrites, and represents short tons for all other products.

⁸The total value of shipments contains duplication for some industries, since it includes the value of ores shipped for preparation by other establishments within the specified industry as well as the value of prepared minerals produced from such ores. For the "Potash, soda, and borate minerals" and "Chemical and fertilizer mineral mining, n.e.c.," industries, for which figures on minerals received for preparation cannot be shown separately, the total cost of minerals received for preparation in each industry amounted to less than 2 percent of the total value of shipments for the industry. Net shipments, which are equal to total shipments less minerals received from other establishments for preparation, exclude this duplication. Figures for 1939 and earlier years represent production.

⁹The figure shown below for cost of "Minerals received for preparation" is repeated here to permit an approximation of "Net shipments". Separate figures were not collected for mining establishments for the value of ores shipped for preparation within the same industry. However, cost of ores received at preparation plants in these industries should closely approximate that figure, since almost all ores were received from nearby mines in the same industry.

¹⁰Figures for average employment were reduced to a 300-day basis for establishments which operated for a shorter period.

¹¹Excludes man-hours worked on inactive days. Such man-hours were not distributed by department.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 1.—COMPARATIVE STATISTICS FOR THE BARITE, FLUORSPAR, PHOSPHATE ROCK, AND ROCK SALT INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954, 1939, 1929, AND 1919

(For explanation of column captions, see INTRODUCTION. Figures for years prior to 1939 represent producing operations only)

Industry, geographic division, State, and year	Number of mines	Value of shipments ¹ (\$1,000)	Number of employees		Designated principal expenses (\$1,000)						Aggregate horse- power rating of power equipment	
			Produc- tion and develop- ment workers	All other employees	Wages of produc- tion and develop- ment workers	Salaries of all other em- ployees	Supplies and minerals received for prepa- ration	Fuel	Purchased electric energy	Contract work		
BARITE INDUSTRY												
United States, total												
1954.....	45	18,269	1,036	89	3,451	423	2,251	327	552	850	67,526	
1939.....	47	2,065	792	62	597	155	² 246	94	52	21	10,452	
1929.....	44	1,801	844	³ 71	648	³ 186	² 155	58	76	24	6,066	
1919.....	98	1,575	919	59	769	110	219	50	19	10	3,029	
West North Central (Missouri)												
1954.....	24	3,416	354	25	1,022	115	578	139	204	75	26,100	
1939.....	23	837	328	28	265	69	² 84	21	21	4	3,359	
1929.....	31	836	545	21	375	30	² 56	21	14	13	2,469	
1919.....	70	528	480	22	400	26	19	2	...	7	100	
Other States ⁴												
1954.....	21	14,853	682	64	2,429	308	1,673	188	348	775	41,426	
1939.....	24	1,228	464	34	332	86	² 162	73	31	17	7,093	
1929.....	13	965	299	24	273	72	² 99	37	62	11	3,597	
1919.....	28	1,047	439	37	369	84	200	48	19	3	2,929	
FLUORSPAR INDUSTRY												
United States, total												
1954.....	105	15,461	997	263	3,451	1,415	3,923	495	513	804	49,351	
1939.....	61	3,398	1,287	⁵ 109	1,134	⁵ 228	² 506	118	61	57	20,506	
1929.....	36	2,858	1,053	118	1,112	290	² 627	153	24	17	6,513	
1919.....	72	3,335	1,124	119	1,196	295	634	163	...	146	7,138	
East North Central (Illinois)												
1954.....	26	8,110	545	137	1,719	733	1,936	217	293	323	26,409	
1939.....	18	1,493	506	55	488	105	² 179	63	17	45	12,129	
1929.....	7	1,434	474	58	563	138	² 245	71	9	10	2,879	
East South Central (Kentucky)												
1954.....	25	1,949	184	31	584	148	767	76	49	81	6,189	
1939.....	30	1,633	663	39	549	81	² 285	44	36	12	6,669	
1929.....	23	1,329	529	57	488	147	² 375	77	14	...	3,108	
1919.....	40	777	370	53	281	112	151	44	...	146	2,293	
West ⁶												
1954.....	54	5,402	268	95	1,148	534	1,220	202	171	400	16,753	
1939.....	13	272	118	13	97	19	² 42	11	8	...	1,708	
1929.....	6	95	50	3	62	5	² 7	5	1	7	526	
Colorado												
1954.....	10	3,643	186	33	822	182	791	155	139	281	8,491	
1939.....	4	105	42	7	42	7	² 15	4	...	...	529
PHOSPHATE ROCK INDUSTRY												
United States, total												
1954.....	74	117,976	4,579	861	17,089	4,440	47,310	3,348	5,507	2,904	356,544	
1939.....	40	12,286	3,372	⁷ 382	2,871	⁷ 858	² 1,503	826	931	23	112,531	
1929.....	33	13,044	3,201	³ 305	3,304	³ 778	² 1,543	891	1,092	21	104,146	
1919.....	69	10,300	4,373	374	3,901	761	2,162	1,740	79	164	49,639	
South Atlantic (Florida)												
1954.....	29	94,441	3,283	665	12,352	3,443	41,575	2,601	5,108	1,242	263,909	
1939.....	23	7,975	1,943	249	1,659	529	² 1,113	548	714	21	92,694	
1929.....	18	9,715	1,936	225	2,181	553	² 1,231	664	956	19	91,268	
1919 ⁸	40	6,679	2,330	250	2,372	550	1,455	1,278	70	115	40,996	
East South Central (Tennessee)												
1954.....	28	14,502	685	106	2,066	512	3,675	456	172	720	65,669	
1939.....	14	3,753	1,308	76	1,033	134	² 265	268	199	...	18,311	
1929.....	12	3,129	1,189	46	1,010	122	² 249	223	119	2	11,811	
1919 ⁹	23	3,140	1,568	101	1,175	175	639	379	2	35	7,168	
Mountain ¹⁰												
1954.....	17	9,033	611	90	2,671	485	2,060	291	227	942	26,966	
1939.....	3	558	121	19	179	42	² 125	10	18	2	1,526	
1929.....	3	200	76	16	113	33	² 63	4	17	...	1,067	
1919.....	3	70	37	4	54	8	8	1	1	13	200	

See footnotes at end of table.

Table 2.--COMPARATIVE STATISTICS FOR THE BARITE, FLUORSPAR, PHOSPHATE ROCK, AND ROCK SALT INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954, 1939, 1929, AND 1919--Continued

(For explanation of column captions, see INTRODUCTION. Figures for years prior to 1939 represent producing operations only)

Industry, geographic division, State, and year	Number of mines	Value of ship- ments ¹ (\$1,000)	Number of employees		Designated principal expenses (\$1,000)						Aggregate horse- power rating of power equipment
			Produc- tion and develop- ment workers	All other employees	Wages of produc- tion and develop- ment workers	Salaries of all other em- ployees	Supplies and minerals received for prepa- ration	Fuel	Purchased electric energy	Contract work	
ROCK SALT INDUSTRY											
United States, total											
1954.....	15	35,658	1,659	266	7,117	1,454	5,351	335	367	244	47,871
1939.....	17	6,896	1,380	181	1,434	540	2868	153	151	3	23,002
Louisiana											
1954.....	4	13,109	704	151	2,330	700	113,268	147	99	(11)	16,794
1939.....	4	2,189	551	66	416	191	2258	116	54	3	8,367
Other States ¹²											
1954.....	11	22,549	955	115	4,787	754	112,327	188	268	(11)	31,077
1939.....	13	4,707	829	115	1,018	349	2610	37	97	...	14,635

¹See table 1, footnote 8. ²Excludes the cost of minerals received for preparation. ³Includes figures for central office employees not distributed by States. ⁴For all years includes South Carolina, Georgia, Tennessee, and California. For 1954, also includes Arkansas, Montana, Idaho, Arizona, and Nevada. For 1939, also includes Virginia, Alabama, Colorado, and Nevada. For 1929, also includes Wisconsin and Virginia. For 1919, also includes Wisconsin, Virginia, North Carolina, Kentucky, and Alabama. ⁵Includes figures for central office employees in Missouri where no fluorspar mines were located. ⁶For all years includes Colorado, New Mexico, and Nevada. For 1954, also includes Montana, Arizona, Utah, and California; and central office employees in Missouri and Oklahoma. For 1939, also includes Arizona and Utah. ⁷Includes figures for central office employees in New York, Illinois, Maryland, Virginia, and Georgia where no phosphate rock mines were located. ⁸In 1919, there were also 2 producing mines in South Carolina. Figures for this State are included in the United States total but are not included by Geographic Division. ⁹In 1919, there was one producing mine in Kentucky. Figures for this State are included in the United States total but are not included by Geographic Division. ¹⁰For all years includes Idaho. For 1954, also includes Montana, Wyoming, and Utah. For 1939, also includes Montana. For 1929, also includes Wyoming. For 1919, also includes Utah. ¹¹Figures for cost of contract work are included with cost of supplies. ¹²For both years includes New York, Michigan, Kansas, Texas, Utah, and California. For 1954, also includes Nevada. For 1939, also includes New Mexico.

Table 3.—DETAILED STATISTICS FOR THE CHEMICAL AND FERTILIZER MINERAL

(For explanation of line

Item	Barite industry				Fluorspar industry		
	United States, total	West North Central (Missouri)	South ¹	West ²	United States, total	East North Central (Illinois)	East South Central (Kentucky)
1 Number of operating companies.....	36	20	9	10	94	22	29
2 Number of establishments.....	44	23	9	12	104	24	29
3 Number of mines.....	45	24	9	12	105	26	25
4 Number of preparation plants.....	35	19	8	8	33	8	7
5 Shipments of primary products ¹¹.....1,000 tons ¹² ..	903	316	452	135	265	104	41
6 Value of shipments, total ¹⁴.....\$1,000..	18,269	3,416	13,628	1,225	15,461	8,110	1,949
7 Primary products ¹¹.....do....	18,269	3,416	13,628	1,225	{ 14,502 959 }	8,110	1,949
8 All other products and services.....do....							
9 Value added in mining.....do....	14,051	2,381	10,967	703	9,914	5,426	974
10 Number of persons engaged, total.....	1,160	402	690	68	1,374	710	240
11 Production and development workers.....	1,036	354	625	57	997	545	184
12 All other employees.....	89	25	62	2	263	137	31
13 Proprietors and firm members.....	35	23	3	9	114	28	25
14 Performing manual labor.....	18	9	2	7	82	15	21
15 Man-hours worked by production and development workers, total.....1,000..	2,403	853	1,413	137	2,001	1,035	371
16 At mines and well operations, total.....do....	1,201	412	693	96	1,141	539	241
17 Underground.....do....	469	...	429	40	826	400	182
18 Open-pit or quarry.....do....	674	391	247	36	116	50	2
19 Well operations.....do....	...	...	...	...	...	...	...
20 Surface (including mine shops and yards).....do....	58	21	17	20	199	89	57
21 At preparation plants.....do....	1,202	441	720	41	860	496	130
22 Man-hours spend on development and exploration work (included above).....do....	6	...	3	3	50	10	15
23 Tons of primary products per man-hour ¹²	0.38	0.37	0.32	0.99	0.13	0.10	0.11
24 Principal expenses designated below, total.....\$1,000..	7,854	2,133	4,918	803	10,601	5,221	1,705
25 Wages of production and development workers.....do....	3,451	1,022	2,176	253	3,451	1,719	584
26 Salaries of all other employees.....do....	423	115	296	12	1,415	733	148
27 Minerals received for preparation.....do....	...	...	...	...	1,728	1,936	{ 569 198 }
28 Supplies ¹⁵.....do....	2,251	578	1,521	152	2,195		
29 Fuel.....do....	327	139	167	21	495	217	76
30 Purchased electric energy.....do....	552	204	321	27	513	293	49
31 Contract work.....do....	850	75	437	338	804	323	81
32 Purchased machinery installed.....do....	1,250	205	1,006	39	561	302	45
33 Capital expenditures, total.....do....	1,012	166	791	55	749	387	43
34 Development and exploration of mineral property.....do....	24	3	15	6	140	50	...
35 Preparation plant construction.....do....	61	...	55	6	81	16	10
36 Other construction.....do....	17	7	1	9	64	62	2
37 New machinery and equipment.....do....	853	117	703	33	429	236	31
38 Used plant and equipment.....do....	57	39	17	1	35	23	...
39 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	67,526	26,100	35,940	5,486	49,351	26,409	6,189
40 Per production worker.....	65	74	58	96	49	48	34
41 Prime movers.....	40,855	20,228	17,234	3,393	27,977	15,081	2,598
42 Electric motors driven by purchased energy.....	26,671	5,872	18,706	2,093	21,374	11,328	3,591
43 Horsepower rating of electric motors driven by energy generated and used at same establishment.....	251	186	...	65	8,676	8,676	...
44 Energy used.....million kwh equivalent..	269	55	202	12	380	224	33
45 Coal.....1,000 short tons..	1	1	...	...	24	22	2
46 Fuel oils.....1,000 barrels..	17	8	7	2	65	16	11
47 Natural gas.....million cu. ft..	484	...	473	11	109	...	...
48 Electric energy purchased.....million kwh..	47	9	35	3	34	18	3
49 Electric energy generated and used.....do....	...	...	...	...	14	14	...
50 Water intake, including mine water used.....million gallons..	6,047	4,777	1,170	100	1,091	650	69
51 Per production worker.....do....	5.84	13.49	1.87	1.75	1.09	1.19	0.38

See footnotes at end of table.

MINING INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954

captions, see INTRODUCTION)

Fluorspar industry— Continued		Potash, soda, and borate minerals industry				Phosphate rock industry				
West ³		United States, total	West South Central and Mountain ⁴		Pacific (California)	United States, total	South Atlantic (Florida)	East South Central (Tennessee)	Mountain ⁵	
Total	Colorado		Total	New Mexico					Total	Montana
46	4	15	11	5	4	53	19	27	10	6
51	6	20	11	5	9	75	33	28	14	6
54	10	20	11	5	9	73	28	28	17	9
18	4	16	10	5	6	54	30	15	9	2
120	84	4,606	3,347	2,954	1,259	13,387	13,641	2,147	1,599	455
5,402	3,643	107,757	73,102	64,747	34,655	117,976	94,441	14,502	9,033	3,435
5,402	3,643	{ 105,452 2,305 }	73,102	64,747	34,655	{ 117,909 67 }	94,441	14,502	9,033	3,435
3,514	2,336	82,213	57,912	51,778	24,301	62,089	46,015	9,605	6,469	3,237
424	221	6,323	3,986	3,439	2,337	5,484	3,963	816	705	373
268	186	4,738	3,189	2,787	1,549	4,579	3,283	685	611	311
95	33	1,584	796	652	788	861	665	106	90	58
61	2	1	1	...	...	44	15	25	4	4
46	...	...	...	...	...	21	6	15	...	...
595	415	9,381	6,267	5,429	3,114	10,119	7,495	1,410	1,214	625
361	249	3,997	3,733	3,426	264	5,192	3,580	631	981	602
244	147	3,045	2,830	2,614	215	691	...	...	691	504
64	54	...	...	...	...	2,941	2,342	444	155	2
...
53	48	952	903	812	49	1,560	1,238	187	135	96
234	166	5,384	2,534	2,003	2,850	4,927	3,915	779	233	23
25	18	50	25	22	25	303	225	21	57	44
0.20	0.20	0.49	0.53	0.54	0.40	1.32	1.29	1.52	1.32	0.73
3,675	2,370	59,649	37,460	32,411	22,189	80,598	66,321	7,601	6,676	2,883
1,148	822	23,028	16,488	14,626	6,540	17,089	12,352	2,066	2,671	1,460
534	182	10,411	5,762	4,998	4,649	4,440	3,443	512	485	301
1,220	{ ... 791 }	17,329	{ ... 16,12,726 }	{ ... 9,631 }	{ ... 16,6,249 }	{ 35,393 11,917 }	{ 32,212 9,363 }	3,675	2,060	{ ... 775 }
202	155	5,594	1,437	1,118	4,157	3,348	2,601	456	291	19
171	139	1,641	1,047	992	594	5,507	5,108	172	227	84
400	281	1,646	(16)	1,046	(16)	2,904	1,242	720	942	244
214	154	8,390	5,512	5,238	2,878	8,156	5,902	502	1,752	203
319	213	9,056	5,532	5,056	3,524	11,338	8,002	628	2,708	1,127
90	52	525	245	243	280	1,083	131	4	948	921
55	48	310	194	58	116	2,310	2,119	191	...	...
...	...	1,289	1,289	1,206	...	174	128	3	43	3
162	108	6,866	3,738	3,483	3,128	7,662	5,618	340	1,704	190
12	5	66	66	66	...	109	6	90	13	13
16,753	8,491	194,843	114,801	92,738	80,042	356,544	263,909	65,669	26,966	9,802
63	46	41	36	33	52	78	80	96	44	32
10,298	3,963	111,656	56,985	37,145	54,671	116,564	73,279	28,971	14,314	4,454
6,455	4,528	83,187	57,816	55,593	25,371	239,980	190,630	36,698	12,652	5,348
...	...	89,927	58,366	45,615	31,561	16,358	16,158	...	200	...
123	99	5,812	2,895	2,267	2,917	2,990	2,445	382	163	16
...	...	1	1	...	...	21	1	13	7	(D) 45
38	34	1,667	24	9	1,643	1,111	1,041	24	46	2
109	76	8,820	8,820	6,910	...	613	...	613	...	...
13	11	195	127	122	68	652	600	28	24	9
...	...	267	115	84	152	49	49	...	...	...
372	281	10,561	5,058	4,498	5,503	62,618	56,718	5,601	299	20
1.39	1.51	2.23	1.59	1.61	3.55	13.68	17.28	8.18	0.49	0.06

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 3.—DETAILED STATISTICS FOR THE CHEMICAL AND FERTILIZER MINERAL MINING INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

(For explanation of line captions, see INTRODUCTION)

Item	Rock salt industry			
	United States, total	Middle Atlantic and North Central ⁶	West South Central and West ⁷	
			Total	Louisiana
Number of operating companies.....	11	5	8	4
Number of establishments.....	15	6	9	4
Number of mines.....	15	6	9	4
Number of preparation plants.....	13	6	7	4
Shipments of primary products ¹¹.....1,000 tons ¹² ..	4,618	3,352	1,266	956
Value of shipments, total ¹⁴.....\$1,000..	35,658	20,879	14,779	13,109
Primary products ¹¹.....do....	30,769	20,879	14,779	13,109
All other products and services.....do....	4,889			
Value added in mining.....do....	30,013	18,555	11,458	10,113
Number of persons engaged, total.....	1,928	926	1,002	855
Production and development workers.....	1,659	843	816	704
All other employees.....	266	83	183	151
Proprietors and firm members.....	3	...	3	...
Performing manual labor.....	1	...	1	...
Man-hours worked by production and development workers, total.....1,000..	3,861	2,015	1,846	1,574
At mines and well operations, total.....do....	2,078	1,491	587	467
Underground.....do....	1,500	1,090	410	368
Open-pit or quarry.....do....	45	...	45	...
Well operations.....do....	...	...	...	...
Surface (including mine shops and yards).....do....	533	401	132	99
At preparation plants.....do....	1,783	524	1,259	1,107
Man-hours spent on development and exploration work (included above).....do....	12	12	...	...
Tons of primary products per man-hour ¹²	1.20	1.66	0.69	0.61
Principal expenses designated below, total.....\$1,000..	14,868	7,441	7,427	6,544
Wages of production and development workers.....do....	7,117	4,329	2,788	2,330
Salaries of all other employees.....do....	1,454	583	871	700
Minerals received for preparation.....do....	...	...	...	...
Supplies ¹⁵.....do....	5,351	1,978	3,373	163,268
Fuel.....do....	335	151	184	147
Purchased electric energy.....do....	367	253	114	99
Contract work.....do....	244	147	97	(16)
Purchased machinery installed.....do....	1,534	707	827	668
Capital expenditures, total.....do....	2,186	912	1,274	1,186
Development and exploration of mineral property.....do....	53	53	...	...
Preparation plant construction.....do....	704	9	695	674
Other construction.....do....	169	143	26	26
New machinery and equipment.....do....	1,259	707	552	486
Used plant and equipment.....do....	1	...	1	...
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	47,871	27,890	19,981	16,794
Per production worker.....	29	33	24	24
Prime movers.....	17,454	6,880	10,574	8,178
Electric motors driven by purchased energy.....	30,417	21,010	9,407	8,616
Horsepower rating of electric motors driven by energy generated and used at same establishment.....	7,489	4,150	3,339	3,278
Energy used.....million kwh equivalent..	549	196	353	342
Coal.....1,000 short tons..	1	1	...	...
Fuel oils.....1,000 barrels..	21	16	5	2
Natural gas.....million cu. ft..	1,522	455	1,067	1,067
Electric energy purchased.....million kwh..	29	19	10	9
Electric energy generated and used.....do....	6	...	6	6
Water intake, including mine water used.....million gallons..	2,968	782	2,186	2,112
Per production worker.....do....	1.79	0.93	2.68	3.00

See footnotes at end of table.

CHEMICAL AND FERTILIZER MINERAL MINING

14H-15

Table 3.—DETAILED STATISTICS FOR THE CHEMICAL AND FERTILIZER MINERAL MINING INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

(For explanation of line captions, see INTRODUCTION)

Item	Sulfur industry	Chemical and fertilizer mineral mining, n.e.c., industry		
	United States ⁸	United States, total	Pyrites subindustry ⁹	Miscellaneous chemical and fertilizer mineral mining subindustry ¹⁰
Number of operating companies.....	12	36	5	31
Number of establishments.....	20	39	5	34
Number of mines.....	16	24	3	21
Number of preparation plants.....	5	29	5	24
Shipments of primary products ¹¹.....1,000 tons ¹² ..	5,510	xxx	870	xxx
Value of shipments, total ¹⁴.....\$1,000..	140,685	21,780	12,001	9,779
Primary products ¹¹.....do....	140,661	21,780	12,001	9,779
All other products and services.....do....	24			
Value added in mining.....do....	124,166	18,074	9,855	8,219
Number of persons engaged, total.....	4,095	1,457	918	539
Production and development workers.....	3,077	1,209	783	426
All other employees.....	1,018	233	135	98
Proprietors and firm members.....	...	15	...	15
Performing manual labor.....	...	7	...	7
Man-hours worked by production and development workers, total.....1,000..	6,229	2,424	1,447	977
At mines and well operations, total.....do....	6,209	1,562	1,140	422
Underground.....do....	...	1,030	972	58
Open-pit or quarry.....do....	33	241	...	241
Well operations.....do....	3,369	...	...	...
Surface (including mine shops and yards).....do....	2,807	291	168	123
At preparation plants.....do....	20	862	307	555
Man-hours spent on development and exploration work (included above).....do....	113	242	187	55
Tons of primary products per man-hour ¹²	0.88	xxx	0.60	xxx
Principal expenses designated below, total.....\$1,000..	43,747	10,727	6,469	4,258
Wages of production and development workers.....do....	14,619	4,569	2,971	1,598
Salaries of all other employees.....do....	6,567	1,357	823	534
Minerals received for preparation.....do....	...	3,775	2,408	1,367
Supplies ¹⁵.....do....	14,055			
Fuel.....do....	5,629	193	22	171
Purchased electric energy.....do....	44	394	211	183
Contract work.....do....	2,833	439	34	405
Purchased machinery installed.....do....	2,803	3,360	83	3,277
Capital expenditures, total.....do....	8,845	4,455	612	3,843
Development and exploration of mineral property.....do....	3,069	258	56	202
Preparation plant construction.....do....	48	940	372	568
Other construction.....do....	3,062	432	101	331
New machinery and equipment.....do....	2,635	2,795	83	2,712
Used plant and equipment.....do....	31	30	...	30
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	159,128	52,704	29,186	23,518
Per production worker.....	52	44	37	55
Prime movers.....	155,690	19,221	3,280	15,941
Electric motors driven by purchased energy.....	3,438	33,483	25,906	7,577
Horsepower rating of electric motors driven by energy generated and used at same establishment.....	42,411	...	...	...
Energy used.....million kwh equivalent..	12,854	223	56	167
Coal.....1,000 short tons..	...	1	1	...
Fuel oils.....1,000 barrels..	44	12	1	11
Natural gas.....million cu. ft..	41,383	404	4	400
Electric energy purchased.....million kwh..	5	61	43	18
Electric energy generated and used.....do....	73	...	...	...
Water intake, including mine water used.....million gallons..	15,969	14,167	985	13,182
Per production worker.....do....	5.19	11.72	1.20	30.94

xxx Not Applicable. D Withheld to avoid approximately disclosing figures of individual companies. ¹South Carolina, 1 establishment; Georgia, 4 establishments; Tennessee, 2 establishments; and Arkansas, 2 establishments. ²Montana, 1 establishment; Idaho, 1 establishment; Arizona, 1 establishment; Nevada, 7 establishments; and California, 2 establishments. Nevada was the most important barite-producing State in this geographic area and shipped 89 thousand tons of crude and crushed barite valued at \$680,000. ³In addition to Colorado, Montana, 1 establishment; New Mexico, 28 establishments; Arizona, 1 establishment; Utah, 4 establishments; Nevada, 9 establishments; and California, 2 establishments. Also includes data for central office employees in Missouri and Oklahoma. ⁴In addition to New Mexico, Texas, 1 establishment; Wyoming, 3 establishments; and Utah, 2 establishments. ⁵In addition to Montana, Idaho, 5 establishments; Wyoming, 1 establishment; and Utah, 2 establishments. ⁶New York, 2 establishments; Michigan, 1 establishment; and Kansas, 3 establishments. ⁷In addition to Louisiana, Texas, 1 establishment; Utah, 2 establishments; Nevada, 1 establishment; and California, 1 establishment. ⁸Louisiana, 4 establishments; Texas, 10 establishments; Wyoming, 3 establishments; Utah, 1 establishment; and California, 2 establishments. ⁹Virginia, 1 establishment; Tennessee, 1 establishment; Montana, 1 establishment; New Mexico, 1 establishment; and California, 1 establishment. ¹⁰Maine, 1 establishment; New York, 1 establishment; Pennsylvania, 1 establishment; Illinois, 2 establishments; South Dakota, 2 establishments; Virginia, 1 establishment; North Carolina, 1 establishment; Georgia, 2 establishments; Arkansas, 3 establishments; Louisiana, 1 establishment; Oklahoma, 1 establishment; Texas, 6 establishments; Wyoming, 3 establishments; Colorado, 2 establishments; New Mexico, 1 establishment; Arizona, 1 establishment; Utah, 1 establishment; Oregon, 3 establishments; and California, 1 establishment. ¹¹See table 1, footnote 6. ¹²See table 1, footnote 7. ¹³Of this total, land pebble accounted for 9,458 thousand long tons, and soft rock and hard rock combined accounted for 183 thousand long tons. ¹⁴See table 1, footnote 8. ¹⁵Includes products purchased for resale without further processing. ¹⁶See table 2, footnote 11.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 4A.—DETAILED STATISTICS FOR SELECTED CHEMICAL AND FERTILIZER MINERAL MINING INDUSTRIES IN THE UNITED STATES, BY TYPE OF OPERATION: 1954

Part I.—Establishments Classified by Mining Method

(For explanation of line captions, see INTRODUCTION)

Item	Barite industry			Fluorspar industry		
	All types of establishments	Open-pit mines with preparation plants	Other mines ¹	All types of establishments	Producing establishments	
					Open-pit mines	Combination open-pit and underground mines
Number of operating companies.....	36	26	12	94	8	4
Number of establishments.....	44	32	12	104	8	5
Number of mines.....	45	33	12	105	8	9
Number of preparation plants.....	35	31	4	33	5	3
Crude minerals mined ⁷.....1,000 tons ⁸ ..	960	717	243	656	40	252
Value of shipments.....\$1,000..	18,269	13,497	4,772	15,461	848	3,167
Value added in mining.....do....	14,051	10,308	3,743	9,914	628	2,027
Number of persons engaged, total.....	1,160	731	429	⁹ 1,374	58	153
Production and development workers.....	1,036	643	393	997	42	125
All other employees.....	89	65	24	⁹ 263	4	23
Proprietors and firm members.....	35	23	12	114	12	5
Performing manual labor.....	18	10	8	82	2	3
Man-hours worked by production and development workers, total.....1,000..	2,403	1,551	852	2,001	83	292
At mines, total.....do....	1,201	669	532	1,141	55	163
Underground.....do....	469	...	469	826	...	72
Open-pit or quarry.....do....	674	632	42	116	55	54
Surface (including mine shops and yards).....do....	58	37	21	199	...	37
At preparation plants.....do....	1,202	882	320	860	28	129
Man-hours spent on development and exploration work (included above).....do....	6	3	3	50	3	...
Tons of crude minerals per man-hour at mine ⁸	0.80	1.07	0.46	0.57	0.73	1.55
Principal expenses designated below, total.....\$1,000..	7,854	5,294	2,560	⁹ 10,601	366	1,889
Wages of production and development workers.....do....	3,451	2,044	1,407	3,451	132	615
Salaries of all other employees.....do....	423	336	87	⁹ 1,415	16	130
Minerals received for preparation.....do....	...	...	...	1,728	...	...
Supplies ¹².....do....	2,251	1,461	790	2,195	¹³ 190	¹³ 903
Fuel.....do....	327	270	57	495	17	130
Purchased electric energy.....do....	552	357	195	513	11	111
Contract work.....do....	850	826	24	804	(¹³)	(¹³)
Purchased machinery installed.....do....	1,250	1,064	186	561	20	132
Capital expenditures, total.....do....	1,012	789	223	749	18	136
Development and exploration of mineral property.....do....	24	16	8	140	5	5
Preparation plant construction.....do....	61	37	24	81	...	48
Other construction.....do....	17	7	10	64	...	...
New machinery and equipment.....do....	853	675	178	429	11	78
Used plant and equipment.....do....	57	54	3	35	2	5
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	67,526	53,896	13,630	49,351	2,737	8,066
Per production worker.....	65	84	35	49	65	65
Prime movers.....	40,855	36,118	4,737	27,977	2,267	4,403
Electric motors driven by purchased energy.....	26,671	17,778	8,893	21,374	470	3,663
Horsepower rating of electric motors driven by energy generated and used at same establishment.....	251	251	...	8,676	...	...
Energy used.....million kwh equivalent..	269	179	90	380	4	72
Bituminous coal.....1,000 short tons..	1	1	...	24	...	...
Fuel oils.....1,000 barrels..	17	16	1	65	...	33
Natural gas.....million cu. ft..	484	279	205	109	...	...
Electric energy purchased.....million kwh..	47	27	20	34	1	9
Electric energy generated and used.....do....	...	...	...	14	...	...
Water intake, including mine water used.....million gallons..	6,047	5,929	118	1,091	1	229
Per production worker.....do....	5.84	9.22	0.30	1.09	0.02	1.83

See footnotes at end of table.

Table 4A.—DETAILED STATISTICS FOR SELECTED CHEMICAL AND FERTILIZER MINERAL MINING INDUSTRIES IN THE UNITED STATES, BY TYPE OF OPERATION: 1954—Con.

Part I.—Establishments Classified by Mining Method

(For explanation of line captions, see INTRODUCTION)

Item	Fluorspar industry--Continued						
	Producing establishments--Continued						Non-producing establishments
	Underground mines					Preparation plants only	
	Total		Principal mining method				
	Without preparation plant	With preparation plant	Open stoping	Shrinkage stoping	Other methods ²		
Number of operating companies.....	57	16	12	5	58	5	10
Number of establishments.....	58	18	13	5	58	5	10
Number of mines.....	58	20	15	5	58	...	10
Number of preparation plants.....	...	18	9	3	6	5	2
Crude minerals mined ⁷.....1,000 tons ⁸ ..	46	318	92	125	147	...	...
Value of shipments.....\$1,000..	859	9,545	3,576	4,808	2,020	1,042	...
Value added in mining.....do....	602	6,152	1,828	3,566	1,360	496	9
Number of persons engaged, total.....	158	877	234	503	298	58	30
Production and development workers.....	77	697	180	397	197	40	16
All other employees.....	12	164	37	104	35	18	2
Proprietors and firm members.....	69	16	17	2	66	...	12
Performing manual labor.....	57	9	11	1	54	...	11
Man-hours worked by production and development workers, total.....1,000..	153	1,352	365	779	361	91	30
At mines, total.....do....	153	740	184	458	251	...	30
Underground.....do....	126	609	133	408	194	...	19
Open-pit or quarry.....do....	...	...	...	...	...	...	7
Surface (including mine shops and yards).....do....	27	131	51	50	57	...	4
At preparation plants.....do....	...	612	181	321	110	91	...
Man-hours spent on development and exploration work (included above).....do....	3	20	1	2	20	...	24
Tons of crude minerals per man-hour at mine ⁸	(¹¹)	0.43	0.50	0.27	0.59	xxx	xxx
Principal expenses designated below, total.....\$1,000..	518	6,734	2,596	3,153	1,503	772	68
Wages of production and development workers.....do....	229	2,288	556	1,368	593	133	54
Salaries of all other employees.....do....	44	877	223	502	196	87	7
Minerals received for preparation.....do....	...	1,256	1,285	1,046	{ 330 }	477	{ ... 4
Supplies ¹².....do....	121	1,284					
Fuel.....do....	23	280	88	150	65	44	1
Purchased electric energy.....do....	6	363	136	62	171	21	1
Contract work.....do....	95	386	308	25	148	10	1
Purchased machinery installed.....do....	23	366	83	175	131	17	3
Capital expenditures, total.....do....	11	542	152	216	185	23	19
Development and exploration of mineral property.....do....	6	113	60	5	54	...	11
Preparation plant construction.....do....	...	26	15	8	3	7	...
Other construction.....do....	...	59	7	28	24	...	5
New machinery and equipment.....do....	5	319	50	174	100	16	...
Used plant and equipment.....do....	...	25	20	1	4	...	3
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	1,511	33,646	9,296	17,367	8,494	1,845	1,546
Per production worker.....	(¹¹)	48	52	44	43	46	97
Prime movers.....	1,408	18,515	3,678	13,488	2,757	773	611
Electric motors driven by purchased energy.....	103	15,131	5,618	3,879	5,737	1,072	935
Horsepower rating of electric motors driven by energy generated and used at same establishment.....	...	8,676	...	8,676	...	...	...
Energy used.....million kwh equivalent..	7	281	45	184	59	16	...
Bituminous coal.....1,000 short tons..	...	24	...	22	2	...	...
Fuel oils.....1,000 barrels..	3	21	14	5	5	8	...
Natural gas.....million cu. ft..	...	108	33	...	75	1	...
Electric energy purchased.....million kwh..	...	23	8	4	11	1	...
Electric energy generated and used.....do....	...	14	...	14	...	...	...
Water intake, including mine water used.....million gallons..	10	787	213	347	237	63	1
Per production worker.....do....	(¹¹)	1.13	1.18	0.87	1.20	1.58	.063

See footnotes at end of table.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 4A.—DETAILED STATISTICS FOR SELECTED CHEMICAL AND FERTILIZER MINERAL MINING INDUSTRIES IN THE UNITED STATES, BY TYPE OF OPERATION: 1954—Con.

Part I.—Establishments Classified by Mining Method

(For explanation of line captions, see INTRODUCTION)

Item	Potash, soda, and borate minerals industry			Phosphate rock industry				
	All types of establishments	Brine operations (dry lake and well brines)	Other methods ³	All types of establishments	Open-pit mines		Other mines ⁴	Preparation plants only
					Without preparation plant ⁵	With preparation plant ⁶		
Number of operating companies.....	15	7	9	53	17	29	8	7
Number of establishments.....	20	7	13	75	17	43	8	7
Number of mines.....	20	7	13	73	17	45	11	...
Number of preparation plants.....	16	6	10	54	...	43	4	7
Crude minerals mined ⁷.....1,000 tons ⁸ ..	(10)	(10)	10,895	46,398	1,436	43,948	1,014	...
Value of shipments.....\$1,000..	107,757	28,371	79,386	117,976	2,147	57,285	4,880	53,664
Value added in mining.....do....	82,213	19,898	62,315	62,089	1,627	38,779	4,157	17,526
Number of persons engaged, total.....	6,323	1,988	4,335	5,484	167	3,543	554	1,220
Production and development workers.....	4,738	1,224	3,514	4,579	139	2,994	478	968
All other employees.....	1,584	763	821	861	6	529	74	252
Proprietors and firm members.....	1	1	...	44	22	20	2	...
Performing manual labor.....	...	...	...	21	10	11	...	...
Man-hours worked by production and development workers, total.....1,000..	9,381	2,521	6,860	10,119	274	6,784	942	2,119
At mines, total.....do....	3,997	91	3,906	5,192	274	4,078	840	...
Underground.....do....	3,045	...	3,045	691	...	...	691	...
Open-pit or quarry.....do....	...	...	...	2,941	228	2,699	14	...
Surface (including mine shops and yards).....do....	952	91	861	1,560	46	1,379	135	...
At preparation plants.....do....	5,384	2,430	2,954	4,927	...	2,706	102	2,119
Man-hours spent on development and exploration work (included above).....do....	50	4	46	303	...	208	45	50
Tons of crude minerals per man-hour at mine ⁸	(NA)	(NA)	2.79	8.94	5.24	10.78	1.21	xxx
Principal expenses designated below, total.....\$1,000..	59,649	18,530	41,119	80,598	995	34,000	4,171	41,432
Wages of production and development workers.....do....	23,028	5,098	17,930	17,089	408	11,021	2,121	3,539
Salaries of all other employees.....do....	10,411	4,439	5,972	4,440	62	2,775	388	1,215
Minerals received for preparation.....do....	17,329	...	13,323	35,393	...	3,103	...	32,290
Supplies ¹².....do....	...	4,006	...	11,917	173	9,389	1,076	1,279
Fuel.....do....	5,594	4,095	1,499	3,348	61	1,238	100	1,949
Purchased electric energy.....do....	1,641	494	1,147	5,507	4	4,401	130	972
Contract work.....do....	1,646	398	1,248	2,904	287	2,073	356	188
Purchased machinery installed.....do....	8,390	2,782	5,608	8,156	98	6,841	489	728
Capital expenditures, total.....do....	9,056	3,302	5,754	11,338	103	8,539	1,428	1,268
Development and exploration of mineral property.....do....	525	(D)	(D)	1,083	7	159	917	...
Preparation plant construction.....do....	310	(D)	(D)	2,310	...	1,905	31	374
Other construction.....do....	1,289	(D)	(D)	174	...	115	7	52
New machinery and equipment.....do....	6,866	3,035	3,831	7,662	92	6,268	460	842
Used plant and equipment.....do....	66	...	66	109	4	92	13	...
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	194,843	74,634	120,209	356,544	11,085	279,766	16,079	49,614
Per production worker.....	41	61	34	78	80	93	34	51
Prime movers.....	111,656	58,978	52,678	116,564	10,978	75,126	7,868	22,592
Electric motors driven by purchased energy.....	83,187	15,656	67,531	239,980	107	204,640	8,211	27,022
Horsepower rating of electric motors driven by energy generated and used at same establishment.....	89,927	32,785	57,142	16,358	...	11,800	...	4,558
Energy used.....million kwh equivalent..	5,812	2,952	2,860	2,990	28	1,404	62	1,496
Bituminous coal.....1,000 short tons..	1	1	...	21	...	19	2	...
Fuel oils.....1,000 barrels..	1,667	1,590	77	1,111	10	282	17	802
Natural gas.....million cu. ft..	8,820	411	8,409	613	3	610	...	...
Electric energy purchased.....million kwh..	195	57	138	652	...	537	12	103
Electric energy generated and used.....do....	267	154	113	49	...	...	...	49
Water intake, including mine water used.....million gallons..	10,561	5,797	4,764	62,618	...	59,447	48	3,123
Per production worker.....do....	2.23	4.74	1.36	13.68	...	19.88	0.10	3.23

See footnotes at end of table.

CHEMICAL AND FERTILIZER MINERAL MINING

14H-19

Table 4A.—DETAILED STATISTICS FOR SELECTED CHEMICAL AND FERTILIZER MINERAL MINING INDUSTRIES IN THE UNITED STATES, BY TYPE OF OPERATION: 1954—Con.
Part II. Establishments Classified by Preparation Method.

(For explanation of line captions, see INTRODUCTION)

Item	Barite industry						
	All estab- lishments	Mines only ¹⁴	Mines and preparation plants, by principal preparation method				
			Total	Flotation and gravity concentrating	Washing	Crushing and screening	Sorting and other methods ¹⁵
Number of operating companies.....	36	9	28	5	10	4	13
Number of establishments.....	44	9	35	5	11	6	13
Number of mines.....	45	9	36	5	12	6	13
Number of preparation plants.....	35	...	35	5	11	6	13
Minerals prepared ⁷.....1,000 tons ⁸ ..	857	...	857	278	157	232	190
Value of shipments.....\$1,000..	18,269	302	17,967	1,746	1,668	4,914	1,639
Value added in mining.....do....	14,051	237	13,814	7,881	1,177	3,623	1,133
Number of persons engaged, total.....	1,160	36	1,124	324	200	399	201
Production and development workers.....	1,036	24	1,012	281	175	379	177
All other employees.....	89	2	87	42	13	20	12
Proprietors and firm members.....	35	10	25	1	12	...	12
Performing manual labor.....	18	8	10	1	3	...	6
Man-hours worked by production and development workers, total...1,000..	2,403	39	2,364	693	433	820	418
At mines, total.....do....	1,201	39	1,162	266	211	479	206
Underground.....do....	469	...	469	22	...	429	18
Open-pit or quarry.....do....	674	37	637	207	201	50	179
Surface (including mine shops and yards).....do....	58	2	56	37	10	...	9
At preparation plants.....do....	1,202	...	1,202	427	222	341	212
Man-hours spent on development and exploration work (included above).....do....	6	...	6	3	...	...	3
Tons of minerals prepared per man-hour at preparation plants ⁸	0.71	xxx	0.71	0.65	0.71	0.68	0.90
Principal expenses designated below, total.....\$1,000..	7,854	138	7,716	2,879	1,014	2,664	1,159
Wages of production and development workers.....do....	3,451	56	3,395	1,066	496	1,329	504
Salaries of all other employees.....do....	423	7	416	225	61	69	61
Minerals received for preparation.....do....	...	...	...	...	...	...	...
Supplies ¹².....do....	2,251	39	2,212	884	232	750	346
Fuel.....do....	327	6	321	129	73	42	77
Purchased electric energy.....do....	552	6	546	175	109	183	79
Contract work.....do....	850	24	826	436	43	340	7
Purchased machinery installed.....do....	1,250	6	1,244	753	108	218	165
Capital expenditures, total.....do....	1,012	16	996	512	74	242	168
Development and exploration of mineral property.....do....	24	5	19	11	...	...	8
Preparation plant construction.....do....	61	...	61	34	...	24	3
Other construction.....do....	17	7	10	3	...	...	7
New machinery and equipment.....do....	853	1	852	450	48	218	136
Used plant and equipment.....do....	57	3	54	14	26	...	14
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	67,526	2,164	65,362	25,773	11,117	11,551	16,921
Per production worker.....	65	90	65	92	64	30	96
Prime movers.....	40,855	1,897	38,958	13,832	7,846	4,506	12,774
Electric motors driven by purchased energy.....	26,671	267	26,404	11,941	3,271	7,045	4,147
Horsepower rating of electric motors driven by energy generated and used at same establishment.....	251	...	251	...	186	65	...
Energy used.....million kwh equivalent..	269	1	268	126	32	79	31
Coal.....1,000 short tons..	1	...	1	...	1	...	...
Fuel oils.....1,000 barrels..	17	...	17	8	2	...	7
Natural gas.....million cu. ft..	484	...	484	275	...	194	15
Electric energy purchased.....million kwh..	47	...	47	20	5	18	4
Electric energy generated and used.....do....	...	...	...	...	...	...	...
Water intake, including mine water used.....million gallons..	6,047	11	6,036	1,130	3,048	68	1,790
Per production worker.....do....	5.84	0.46	5.96	4.0	17.4	0.18	10.11

See footnotes at end of table.

Table 4A.—DETAILED STATISTICS FOR SELECTED CHEMICAL AND FERTILIZER
Part II. Establishments Classified

(For explanation of line

Item	Fluorspar industry						
	All pro- ducing estab- lish- ments	Mines only	Mines with preparation plants, by prin- cipal preparation method				Prepa- ration plants only
			Total	Flotation and gravity concentrating	Sorting	Other methods ¹⁶	
1 Number of operating companies.....	87	61	22	4	8	10	5
2 Number of establishments.....	94	63	26	7	8	11	5
3 Number of mines.....	95	63	32	13	8	11	...
4 Number of preparation plants.....	31	...	26	7	8	11	5
5 Minerals prepared ⁷.....1,000 tons ⁸	629	...	591	320	27	244	38
6 Value of shipments.....\$1,000..	15,461	1,552	12,867	6,073	531	6,263	1,042
7 Value added in mining.....do....	9,905	1,229	8,180	3,141	404	4,635	496
8 Number of persons engaged, total.....	⁹ 1,344	205	1,041	404	37	600	58
9 Production and development workers.....	981	116	825	328	17	480	40
10 All other employees.....	⁹ 261	13	190	76	4	110	18
11 Proprietors and firm members.....	102	76	26	...	16	10	...
12 Performing manual labor.....	71	61	10	...	8	2	...
13 Man-hours worked by production and development workers, total..1,000..	1,971	237	1,643	659	34	950	91
14 At mines, total.....do....	1,111	237	874	329	27	518	...
15 Underground.....do....	807	154	653	210	17	426	...
16 Open-pit or quarry.....do....	109	51	58	45	10	3	...
17 Surface (including mine shops and yards).....do....	195	32	163	74	...	89	...
18 At preparation plants.....do....	860	...	769	330	7	432	91
19 Man-hours spent on development and exploration work (included above).....do....	26	3	23	19	3	1	...
20 Tons of minerals prepared per man-hour at preparation plants ⁸	0.73	xxx	0.77	0.97	3.86	0.56	0.42
21 Principal expenses designated below, total.....\$1,000..	⁹ 10,533	741	8,766	4,732	212	3,822	772
22 Wages of production and development workers.....do....	3,397	380	2,884	1,252	56	1,576	133
23 Salaries of all other employees.....do....	⁹ 1,408	47	1,020	435	13	572	87
24 Minerals received for preparation.....do....	1,728	...	...	807	...	...	477
25 Supplies ¹².....do....	2,191	175	3,267	1,214	34	1,212	44
26 Fuel.....do....	494	28	422	219	10	193	21
27 Purchased electric energy.....do....	512	16	475	270	2	203	10
28 Contract work.....do....	803	95	698	535	97	66	...
29 Purchased machinery installed.....do....	558	25	516	194	32	290	17
30 Capital expenditures, total.....do....	730	16	691	307	48	336	23
31 Development and exploration of mineral property.....do....	129	11	118	101	16	1	...
32 Preparation plant construction.....do....	81	...	74	51	...	23	7
33 Other construction.....do....	59	...	59	2	...	57	...
34 New machinery and equipment.....do....	429	5	408	128	30	250	16
35 Used plant and equipment.....do....	32	...	32	25	2	5	...
36 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy) total.....	47,805	3,041	42,919	18,698	2,592	21,629	1,845
37 Per production worker.....	49	(¹¹)	52	57	152	45	46
38 Prime movers.....	27,366	2,483	24,110	7,341	2,547	14,222	773
39 Electric motors driven by purchased energy.....	20,439	558	18,809	11,357	45	7,407	1,072
40 Horsepower rating of electric motors driven by energy generated and used at same establishment.....	8,676	...	8,676	...	...	8,676	...
41 Energy used.....million kwh equivalent..	380	9	355	143	4	208	16
42 Coal.....1,000 short tons..	24	...	24	1	...	23	...
43 Fuel oils.....1,000 barrels..	65	3	54	44	1	9	8
44 Natural gas.....million cu. ft..	109	...	108	108	...	...	1
45 Electric energy purchased.....million kwh..	34	1	32	19	...	13	1
46 Electric energy generated and used.....do....	14	...	14	...	...	14	...
47 Water intake, including mine water used.....million gallons..	1,090	10	1,017	455	...	562	63
48 Per production worker.....do....	1.11	(¹¹)	1.23	1.39	...	1.17	1.58

(D) Withheld to avoid approximately disclosing figures of individual companies. NA Not available. ¹Represents 6 open-pit mines, 1 combination open-pit and underground mine, 2 underground mines, 1 mine for which the mining method was not reported, and 2 nonproducing mines. ²Represents 2 mines reporting square-setting as the principal mining method; one mine reporting cut and fill stoping as the principal mining method, and 55 mines for which the principal mining method was not reported. The latter mines accounted for about 18 percent of the value of shipments for this group. ³Represents 1 open-pit mine, 1 combination open-pit and underground mine, 10 underground mines, and 1 nonproducing mine. ⁴Represents 2 combination open-pit and underground mines, 8 underground mines, and one nonproducing mine. ⁵Includes 1 nonproducing mine. ⁶Includes 2 nonproducing mines. ⁷See table 1, footnote 6. ⁸See table 1, footnote 7. ⁹Includes 40 salaried employees, paid \$254,000 in salaries, not classified by type of operation. ¹⁰Total output of crude minerals is not available for this industry since this information was not reported for brine operations. ¹¹Not computed since the number of proprietors and firm members performing manual labor exceeds one-third of the number of production and development workers. ¹²See table 3, footnote 15. ¹³See table 2, footnote 11. ¹⁴Includes 1 nonproducing mine.

MINERAL MINING INDUSTRIES IN THE UNITED STATES, BY TYPE OF OPERATION: 1954—Continued
by Preparation Method.

captions, see INTRODUCTION)

Potash, soda, and borate minerals industry				Phosphate rock industry								
All estab- lishments	Mines with preparation plants by principal preparation method			All estab- lishments	Mines only ¹⁴	Mines with preparation plants by principal preparation method					Prepa- ration plants only	
	Flotation and crystal- lization	Evapora- tion and carbonation	Other ¹⁷			Total	Flotation	Washing	Crushing	Other ¹⁸		
15	5	4	7	53	21	32	8	5	9	13	7	1
20	5	4	11	75	21	47	14	5	10	18	7	2
20	5	4	11	73	23	50	14	5	11	20	...	3
16	5	4	7	54	...	47	14	5	10	18	7	4
(NA)	(NA)	(NA)	(NA)	54,865	...	46,312	9,604	4,935	505	31,268	8,553	5
107,757	50,560	26,989	30,208	117,976	5,119	59,193	39,137	1,380	3,924	14,752	53,664	6
82,213	39,941	18,792	23,480	62,089	3,870	40,693	27,266	902	3,464	9,061	17,526	7
6,323	2,468	1,916	1,939	5,484	496	3,768	2,507	153	314	794	1,220	8
4,738	1,993	1,171	1,574	4,579	420	3,191	2,132	113	263	683	968	9
1,584	475	745	364	861	52	557	375	33	44	105	252	10
1	...	...	1	44	24	20	...	7	7	6	...	11
...	...	...	...	21	10	11	...	7	3	1	...	12
9,381	3,955	2,400	3,026	10,119	815	7,185	4,906	254	539	1,486	2,119	13
3,997	2,821	...	1,176	5,192	815	4,377	3,222	167	411	577	...	14
3,045	1,948	...	1,097	691	466	225	...	...	225	...	...	15
...	...	...	...	2,941	228	2,713	2,152	82	126	353	...	16
952	873	...	79	1,560	121	1,439	1,070	85	60	224	...	17
5,384	1,134	2,400	1,850	4,927	...	2,808	1,684	87	128	909	2,119	18
50	...	4	46	303	3	250	141	9	53	47	50	19
(NA)	(NA)	(NA)	(NA)	11.14	xxx	16.49	5.70	56.72	3.95	34.40	4.04	20
59,649	24,047	17,832	17,770	80,598	3,429	35,737	23,058	972	2,565	9,142	41,432	21
23,028	10,646	4,842	7,540	17,089	1,622	11,928	8,243	397	1,157	2,131	3,539	22
10,411	3,604	4,338	2,469	4,440	289	2,936	2,040	159	260	477	1,215	23
17,329	{ 7,644	13,129 }	5,925	{ 35,393	...	12,932	8,051	183	{ ...	2,935	32,290	24
5,594	761	4,029	804	3,348	89	1,310	602	41	131	536	1,949	26
1,641	883	494	264	5,507	77	4,458	3,977	114	78	289	972	27
1,646	509	(¹³)	768	2,904	543	2,173	145	78	261	1,689	188	28
8,390	4,765	2,692	933	8,156	380	7,048	2,336	394	240	4,078	728	29
9,056	3,943	3,147	1,966	11,338	649	9,421	3,240	332	928	4,921	1,268	30
525	...	(D)	(D)	1,083	268	815	73	8	683	51	...	31
310	(D)	(D)	(D)	2,310	...	1,936	1,014	78	...	844	374	32
1,289	833	...	456	174	3	119	72	...	40	7	52	33
6,866	3,047	(D)	(D)	7,662	361	6,459	2,077	246	205	3,931	842	34
66	(D)	...	(D)	109	17	92	4	...	...	88	...	35
194,843	79,561	67,964	47,318	356,544	19,450	278,480	185,439	17,544	14,041	61,456	58,614	36
41	40	58	30	78	46	87	87	155	53	90	61	37
111,656	30,181	52,314	29,161	116,564	14,867	70,105	34,766	6,028	8,649	20,662	31,592	38
83,187	49,380	15,650	18,157	239,980	4,583	208,375	150,673	11,516	5,392	40,794	27,022	39
89,927	33,927	31,452	24,548	16,358	...	11,800	11,600	...	200	...	4,558	40
5,812	1,394	2,923	1,495	2,990	47	1,448	759	124	60	505	1,495	41
1	1	...	...	21	...	21	...	...	1	20	...	42
1,667	18	1,578	71	1,111	14	295	224	8	24	39	802	43
8,820	4,245	410	4,165	613	3	610	...	...	...	610	...	44
195	51	57	87	652	8	541	340	106	6	89	103	45
267	54	152	61	49	...	...	...	...	...	...	49	46
10,561	2,002	5,621	2,938	62,618	4	59,491	52,238	18	772	6,463	3,123	47
2.23	1.00	4.80	1.87	13.68	0.01	18.67	24.50	0.16	2.94	9.53	3.23	48

¹⁵Represents 1 establishment reporting sorting as the principal preparation method; 1 nonproducing establishment (mine and plant); and 11 establishments with principal preparation method not specified. The latter 11 establishments accounted for over 95 percent of the value of shipments for this group.¹⁶Represents 1 establishment reporting screening as the principal preparation method; 1 reporting grinding; and 9 with principal preparation method not specified. The latter 9 establishments accounted for over 95 percent of the value of shipments for this group. ¹⁷Represents 3 establishments at which no preparation was done; 1 establishment reporting concentration and crystallization as the principal preparation method; 1 reporting crushing; 1 reporting recrystallization; 1 nonproducing establishment (mine only); and 4 establishments with principal preparation method not specified. The latter 4 establishments accounted for less than 20 percent of the value of shipments for this group. ¹⁸Represents 1 establishment reporting calcining as the principal preparation method; 3 nonproducing establishments (mine and plant); and 14 establishments with principal preparation method not specified. The latter 14 establishments accounted for over 90 percent of the value of shipments for this group.

Table 4B.—NUMBER OF ESTABLISHMENTS WITH PREPARATION PLANTS IN THE CHEMICAL AND FERTILIZER MINERAL MINING INDUSTRIES REPORTING SPECIFIED PREPARATION METHODS, CLASSIFIED BY NUMBER OF EMPLOYEES: 1954

Industry and mineral preparation method	Total number of establishments	Number of establishments with preparation plants with an average of--									
		No em- ployees	1-4 em- ployees	5-9 em- ployees	10-19 em- ployees	20-49 em- ployees	50-99 em- ployees	100-249 em- ployees	250-499 em- ployees	500-999 em- ployees	1,000-2,499 em- ployees
BARITE INDUSTRY											
Number of establishments with preparation plants..	34	2	2	4	15	8	1	1	1	...	...
Number of establishments reporting specified preparation methods: ¹											
Crushing.....	17	2	1	1	4	6	1	1	1	...	...
Grinding.....	7	...	...	...	2	3	...	1	1	...	...
Screening.....	6	...	...	1	4	1	...	...	...	...	...
Washing.....	25	...	...	3	14	7	1	...	...	...	...
Flotation.....	6	...	...	...	1	3	...	1	1	...	...
Gravity concentration.....	10	...	...	1	4	4	1	...	...	...	...
Magnetic separation.....	1	...	...	...	...	1	...	...	...	...	...
Drying.....	7	...	...	...	2	3	...	1	1	...	...
Air separation.....	1	...	...	...	1	...	...	...	...	...	...
Sorting.....	6	...	1	1	2	2	...	...	...	...	...
FLUORSPAR INDUSTRY											
Number of establishments with preparation plants..	31	3	4	8	4	6	5	...	1	...	...
Number of establishments reporting specified preparation methods: ¹											
Crushing.....	11	...	1	4	2	2	2	...	...	...	...
Grinding.....	9	...	...	3	2	2	1	...	1	...	...
Screening.....	3	...	...	3	...	...	...	...	...	...	...
Washing.....	2	...	1	1	...	...	...	...	...	...	...
Flotation.....	14	...	...	1	2	5	5	...	1	...	...
Gravity concentration.....	2	...	...	...	1	...	1	...	...	...	...
Sink and float.....	3	...	...	...	1	1	...	...	1	...	...
Drying.....	2	...	...	...	...	1	...	...	1	...	...
Sorting.....	8	3	3	2	...	...	...	...	...	...	...
POTASH, SODA, AND BORATE MINERALS INDUSTRY											
Number of establishments with preparation plants..	² 16	...	1	1	1	1	2	1	5	2	2
Number of establishments reporting specified preparation methods: ¹											
Crushing.....	4	...	1	...	1	...	...	1	1	...	...
Grinding.....	1	...	...	...	1	...	...	...	...	...	...
Flotation.....	5	...	...	...	...	...	1	...	2	2	...
Concentration.....	1	...	...	...	...	...	...	...	...	...	1
Crystallization.....	4	...	...	...	...	...	...	...	2	1	1
Evaporation.....	2	...	...	...	...	1	...	...	...	...	1
Carbonation.....	3	...	...	...	...	...	1	...	1	...	1
Magnetic separation.....	1	...	...	...	...	...	...	...	1	...	...
Drying.....	1	...	...	...	...	...	...	...	1	...	...
Fusing.....	1	...	...	...	...	...	...	...	1	...	...
PHOSPHATE ROCK INDUSTRY											
Number of establishments with preparation plants..	51	4	5	4	3	8	9	14	3	1	...
Number of establishments reporting specified preparation methods: ¹											
Crushing.....	27	2	4	2	2	8	5	2	2	...	...
Grinding.....	4	...	...	1	...	...	...	2	1	...	...
Washing.....	28	1	1	1	1	4	6	12	1	1	...
Flotation.....	13	...	...	...	...	...	3	8	1	1	...
Drying.....	23	1	2	2	1	3	5	6	3	...	...
Air separation.....	1	...	...	...	...	1	...	...	...	...	...
Calcining.....	4	...	...	...	...	1	2	...	1	...	...
Nodulizing.....	1	...	...	...	...	...	...	1	...	...	...
Defluorinating.....	1	...	...	...	...	...	...	...	1	...	...
ROCK SALT INDUSTRY											
Number of establishments with preparation plants..	13	...	1	...	...	1	4	6	1	...	...
Number of establishments reporting specified preparation methods: ¹											
Crushing.....	13	...	1	...	...	1	4	6	1	...	...
Grinding.....	5	...	...	...	...	1	2	2	...	...	...
Screening.....	6	...	...	...	...	...	1	4	1	...	...
Drying.....	1	...	...	...	...	...	1	...	...	...	...
Air separation.....	1	...	...	...	...	...	1	...	...	...	...
SULFUR INDUSTRY ²											

See footnotes at end of table.

Table 4B.—NUMBER OF ESTABLISHMENTS WITH PREPARATION PLANTS IN THE CHEMICAL AND FERTILIZER MINERAL MINING INDUSTRIES REPORTING SPECIFIED PREPARATION METHODS, CLASSIFIED BY NUMBER OF EMPLOYEES: 1954—Continued

Industry and mineral preparation method	Total number of establishments	Number of establishments with preparation plants with an average of—									
		No employees	1-4 employees	5-9 employees	10-19 employees	20-49 employees	50-99 employees	100-249 employees	250-499 employees	500-999 employees	1,000-2,499 employees
CHEMICAL AND FERTILIZER MINERAL MINING, N.E.C., INDUSTRY											
Number of establishments with preparation plants..	427	2	3	4	8	6	1	2	...	1	...
Number of establishments reporting specified preparation methods: ¹											
Crushing.....	3	...	...	1	...	1	...	1	...	...	...
Grinding.....	4	...	...	1	1	1	...	1	...	...	...
Screening.....	2	...	...	...	1	...	...	1	...	...	...
Washing.....	1	...	...	...	1	...	...	...	...	...	...
Flotation.....	5	...	...	1	...	2	...	1	...	1	...
Gravity concentration.....	2	...	...	...	...	1	...	1	...	...	...
Air table concentration.....	1	...	...	...	...	...	...	1	...	...	...
Drying.....	3	...	...	...	1	1	...	1	...	...	...
Air separation.....	1	...	...	...	...	1	...	...	...	...	...
Sorting.....	1	1	...	...	...	...	...	...	...	...	...
Natural gas beneficiation.....	12	...	3	1	4	3	1	...	...	...	...

¹Some establishments reported more than one mineral preparation method used and are included in the line for each method reported.²One of these establishments did not specify the preparation methods used.³No preparation methods were reported by establishments classified in this industry.⁴Two of these establishments did not specify the preparation methods used.

Table 5A.—VALUE OF SHIPMENTS OF PRIMARY PRODUCTS OF CHEMICAL AND FERTILIZER MINERAL MINING INDUSTRIES PRODUCED IN ALL INDUSTRIES AND VALUE OF SECONDARY PRODUCTS AND SERVICES AND COST OF MINERALS RECEIVED FROM OTHER ESTABLISHMENTS FOR PREPARATION IN THESE INDUSTRIES: 1954

(For explanation of column captions, see INTRODUCTION)

Industry	Value of shipments and interplant transfers (\$1,000)					Cost of minerals received from other establishments for preparation (\$1,000)
	Total primary and secondary products produced in specified industry	Primary products			Secondary products and services	
		Total	Produced in specified industry	Produced in other mineral industries and in manufacturing industries		
Chemical and fertilizer mineral mining industries:						
Barite.....	18,269	18,298	(D)	(D)	(¹)	...
Fluorspar.....	15,461	² 12,774	14,502	...	³ 959	1,728
Potash, soda, and borate minerals.....	107,757	² 104,070	105,452	(D)	⁴ 2,305	(D)
Phosphate rock.....	117,976	² 82,516	117,909	...	⁵ 67	35,393
Rock salt.....	35,658	32,962	30,769	2,193	⁶ 4,889	...
Sulfur.....	140,685	140,661	140,661	...	⁷ 24	...
Chemical and fertilizer mineral mining, n.e.c.....	21,780	² 20,448	(D)	(D)	(⁸)	(D)

D Withheld to avoid approximately disclosing figures of individual companies.

¹Represents gravel, scrap mica, spodumene concentrates, lead concentrates, products purchased and resold without further processing, and receipts for contract services. The total value of these secondary products and services, amounting to less than one percent of the total value of shipments and interplant transfers, cannot be shown separately without approximately disclosing figures for individual companies.²Represents net shipments which are equal to shipments and interplant transfers less the cost of minerals received for preparation. For the Potash, Soda, and Borate Minerals industry, the cost of minerals received for preparation was less than 2 percent of the total value of shipments of primary products. For the Chemical and Fertilizer Mineral Mining, N.E.C., industry, the cost of such receipts amounted to less than 1 percent of the total value of shipment of primary products.³Represents zinc concentrates, lead concentrates, electric energy generated and sold, and receipts for contract services.⁴Represents bromine, hydrated lime, phosphoric acid, evaporated salt, potassium bromide, miscellaneous inorganic chemicals, receipts for contract services, and electric energy generated and sold.⁵Represents receipts for contract services and electric energy generated and sold.⁶Represents evaporated salt (157,000 tons valued at \$4,812,000) and products purchased and resold without further processing (\$77,000).⁷Represents electric energy generated and sold.⁸Represents copper concentrates, zinc concentrates, copper-water precipitates, sheet mica, natural abrasives, beryllium concentrates, receipts for contract services, products purchased and resold without further processing, and electric energy generated and sold. The total value of these secondary products and services, amounting to between 20 and 30 percent of the total value of shipments and interplant transfers, cannot be shown separately without approximately disclosing figures for individual companies.

Table 5B.—PRIMARY PRODUCTS OF THE CHEMICAL AND FERTILIZER MINERAL MINING INDUSTRIES

(For explanation of column

		1954			
Product		Unit of measure for quantity	Production (Quantity)	Shipments and interplant transfers	
				Quantity	Value f.o.b. mine or plant (\$1,000)
BARITE					
Barite mined and processed at establishments classified in the barite industry and in other mineral industries ²					
1	Crude barite.....	1,000 short tons	960	265	2,552
2	Crushed barite.....	...do.....	628	193	2,085
3	Ground barite (including flotation concentrates).....	...do.....	445	445	13,661
Barite processed at establishments classified in the manufacturing industries:					
4	Crushed and ground barite.....	...do.....	(NA)	⁶ 607	⁶ 17,092
FLUORSPAR					
5	Crude fluorspar.....	...do.....	656	122	1,820
6	Crushed fluorspar.....	...do.....	37	39,089	1,107
7	Ground fluorspar (including flotation concentrates).....	...do.....	216	217	11,575
POTASH, SODA, AND BORATE MINERALS					
8	Crude potassium salts.....	...do.....	¹¹ 9,976	(NA)	(NA)
9	K ₂ O equivalent.....	...do.....	1,986	(NA)	xxx
10	Prepared potassium salts, total.....	...do.....	3,323	3,271	71,836
11	K ₂ O equivalent.....	...do.....	1,949	1,919	xxx
12	² Muriate of potash and manure salts.....	...do.....	3,033	2,986	65,500
13	K ₂ O equivalent.....	...do.....	1,849	1,821	xxx
14	Sulfate of potash.....	...do.....	290	285	6,336
15	K ₂ O equivalent.....	...do.....	100	98	xxx
16	Natural sodium carbonates (except borax) ¹².....	...do.....	545	527	13,535
17	Na ₂ O equivalent.....	...do.....	314	303	xxx
18	Natural sodium sulfates ¹³.....	...do.....	252	251	3,883
19	Na ₂ SO ₄ equivalent.....	...do.....	251	249	xxx
20	Boron minerals ¹⁴.....	...do.....	917	(D)	(D)
21	B ₂ O ₃ equivalent.....	...do.....	295	(D)	xxx
PHOSPHATE ROCK					
22	Crude, crushed, and ground phosphate rock (ore or matrix).....	1,000 long tons..	¹⁵ 46,398	2,871	8,995
23	P ₂ O ₅ content.....	...do.....	6,058	692	xxx
24	Washed and concentrated phosphate rock.....	...do.....	11,303	10,149	36,199
25	P ₂ O ₅ content.....	...do.....	3,722	3,348	xxx
26	Dried, calcined, and sintered phosphate rock.....	...do.....	10,815	10,571	72,715
27	P ₂ O ₅ content.....	...do.....	3,535	3,456	xxx
ROCK SALT					
28	Rock salt (except pressed blocks).....	1,000 short tons.	4,912	4,821	31,916
29	Pressed blocks.....	...do.....	59	58	1,046
SULFUR					
30	Native sulfur and sulfur ore ¹⁷	1,000 long tons..	5,729	5,510	140,661
31	Sulfur content.....	...do.....	5,551	5,351	xxx
CHEMICAL AND FERTILIZER MINERALS, N.E.C.					
32	Pyrites.....	...do.....	912	934	7,665
33	Sulfur content.....	...do.....	405	416	xxx
34	Recovered elemental sulfur ¹⁹.....	...do.....	366	333	9,341
35	Miscellaneous chemical and fertilizer minerals, n.e.c. ²⁰	1,000 short tons.	...	...	(D)

D Withheld to avoid approximately disclosing figures of individual companies. NA Not available. ... Represents zero. ¹Represents "Shipments and interplant transfers" less "Minerals received from other establishments for preparation." ²Establishments classified in mineral industries other than the Barite industry shipped only crude barite ore and ground barite (including flotation concentrates). ³Includes 220 thousand tons of barite which was processed by one or more of the following methods: washing, gravity concentrating, screening, and sorting. Shipments of this material are shown as crude barite. ⁴Represents crude barite for shipment without preparation and barite prepared principally by washing, jigging, and tabling; ground barite is excluded. An additional 28 thousand tons of barite valued at \$176,000 were produced at establishments too small to come within the scope of the 1939 minerals census. ⁵Sold or used by producers as reported by the Bureau of Mines, U. S. Department of the Interior. ⁶Crushed barite accounted for less than 3 percent of the quantity of shipments and less than 2 percent of value of shipments. It is estimated that about 50 percent of the ground barite shipped by these establishments was produced from imported crude barite ore. ⁷Includes 9 thousand tons of ore which was only sorted. Shipments of this material are shown as crude fluorspar. ⁸The value of this crude fluorspar, reported as \$1,942,000, is not shown here to avoid duplication in the value figures since all of this crude fluorspar was further cleaned or concentrated at establishments in the Fluorspar industry (see footnote 10). An additional 6 thousand tons of crude fluorspar valued at \$41,000 were produced at establishments too small to come within the scope of the 1939 minerals census. ⁹Not more than 1 percent of the shipments of crushed fluorspar was transferred for grinding at other establishments in the Fluorspar industry. These receipts are included with receipts of crude fluorspar.

PRODUCED IN ALL MINING AND MANUFACTURING INDUSTRIES IN THE UNITED STATES: 1954 AND 1939

captions, see INTRODUCTION)

1954—Continued					1939				
Minerals prepared in the mineral industries			Net shipments and interplant transfers ¹		Production				
Crude ore mined and prepared at the same establishment (Quantity)	Minerals received from other establishments for preparation		Quantity	Value f.o.b. mine or plant (\$1,000)	Quantity	Value f.o.b. mine or plant			
	Quantity	Cost (\$1,000)				(\$1,000)			
³ 857	265	2,552	}	⁴ 348	⁴ 2,010	1	
...	193	2,085		}			2
...	445	13,661			}			3
xxx	xxx	xxx	⁶ 607	⁶ 17,092	⁵ 171			⁵ 2,903	4
⁷ 517	112	1,728	10	92	⁸ 306	(⁸)		5	
...	(⁹)	(⁹)	⁹ 39	⁹ 1,107	(NA)	(NA)	6		
...	...	...	217	11,575	¹⁰ 202	¹⁰ 3,824	7
(NA)	...	...	(NA)	(NA)	(NA)	(NA)	8
(NA)	...	xxx	(NA)	xxx	(NA)	xxx	9		
(NA)	...	...	3,271	71,836	532	10,138	10
(NA)	...	xxx	1,919	xxx	312	xxx	11		
(NA)	...	...	2,986	65,500	(NA)	(NA)	12
(NA)	...	xxx	1,821	xxx	(NA)	xxx	13		
(NA)	...	...	285	6,336	(NA)	(NA)	14
(NA)	...	xxx	98	xxx	(NA)	xxx	15		
(NA)	...	...	527	13,535	⁵ 125	⁵ 1,529	16
(NA)	...	xxx	303	xxx	(NA)	xxx	17		
(NA)	...	...	251	3,883	⁵ 137	⁵ 1,028	18
(NA)	...	xxx	249	xxx	(NA)	xxx	19		
(NA)	(D)	(D)	556	14,816	⁵ 245	⁵ 5,690	20		
(NA)	(D)	xxx	208	xxx	(NA)	xxx	21		
43,636	653	1,355	2,218	7,640	¹⁵ 374	¹⁵ 1,223	22		
5,417	149	xxx	543	xxx	(NA)	xxx	23		
1,025	9,412	32,963	737	3,236	¹⁵ 171	¹⁵ 360	24		
336	3,122	xxx	225	xxx	(NA)	xxx	25		
...	140	1,075	10,431	71,640	3,415	10,723	26		
...	41	xxx	3,415	xxx	(NA)	xxx	27		
}	{	...	4,821	31,916	¹⁶ 2,003 ¹⁶ 44	¹⁶ 6,890	28		
		...	58	1,046			29		
...	...	...	5,510	140,661	2,091	31,802	30
...	...	xxx	5,351	xxx	(NA)	xxx	31		
¹⁸ 1,526	...	...	934	7,665	516	1,325	32
xxx	...	xxx	416	xxx	(NA)	xxx	33		
xxx	xxx	xxx	333	9,341	(NA)	(NA)	34		
34	(D)	(D)	...	3,442	7	39	35		

¹⁰Represents cleaned or concentrated fluorspar recovered from 369 thousand tons of crude fluorspar valued at \$2,450,000 milled in 1939. An additional 1,221 tons of cleaned and concentrated fluorspar valued at \$15,000 were produced at establishments too small to come within the scope of the 1939 minerals census, from 1,717 tons of ore milled valued at \$9,000.

¹¹Represents production from underground mines only, all of which are located in New Mexico. Does not include production from well brines or dry-lake brines; this information was not reported for such operations.

¹²For 1954, represents soda ash and trona; no natural bicarbonate or soda crystals were produced in 1954. For 1939, represents soda ash, bicarbonate, and trona.

¹³For 1954, represents natural anhydrous sodium sulfate, salt cake, and Glauber's salt; no burkeite was produced in 1954. For 1939, represents natural salt cake, Glauber's salt, and burkeite.

¹⁴For 1954, represents borax; and natural boric acid, colemanite, kernite, ulexite, sodium tetraborate anhydrous, sodium tetraborate pentahydrate, and sodium pentaborate. For 1939, represents borax, boric acid, colemanite, kernite, and ulexite.

¹⁵Figures are based on a retabulation of 1939 Census of Mineral Industries reports and are partly estimated. An additional 3 thousand tons of phosphate rock valued at \$4,000 were produced at establishments too small to come within the scope of the 1939 minerals census.

¹⁶Represents production in the Rock Salt industry only. An additional 8 thousand tons of rock salt valued at \$10,000 were produced in other mineral industries and at establishments too small to come within the scope of the 1939 minerals census.

¹⁷Represents sulfur recovered at well operations (Frasch process) and crude sulfur ore mined. Does not include sulfur from pyrites, recovered elemental sulfur, or sulfur recovered from miscellaneous sulfur-bearing materials.

¹⁸In addition to the sulfur contained in this crude ore, it also contained substantial quantities of iron, copper, and zinc.

¹⁹Represents sulfur of a purity 98 percent or higher recovered from hydrogen sulphide in natural and residue gases at establishments primarily producing such sulfur and as a secondary product at natural gas liquids plants, at petroleum refineries, and at chemical plants.

²⁰For 1954, includes spodumene, miscellaneous sulfur-bearing materials, natural iron-oxide pigments, wollastonite, bismuthite, lignaceous shale, mineral soil builders, amblygonite, and bat guano. For 1939, represents mineral pigments only.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 6.—GENERAL STATISTICS FOR CHEMICAL AND FERTILIZER MINERAL MINING ESTABLISHMENTS CLASSIFIED BY EMPLOYMENT SIZE, BY GEOGRAPHIC DIVISIONS AND STATES: 1954

(For explanation of column captions, see INTRODUCTION)

Industry, geographic division, State, and number of employees in establishment	Number of establish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and develop- ment workers (1,000)	Wages and salaries		New capital expendi- tures (\$1,000)
				Production and develop- ment workers	All other employees		Production and develop- ment workers (\$1,000)	All other employees (\$1,000)	
BARITE INDUSTRY									
United States, total.....	44	18,269	14,051	1,036	89	2,403	3,451	423	955
0.....	4	531	152	10	1	21	34	3	42
1-4.....	7								
5-9.....	7								
10-19.....	15	502	431	45	2	86	120	6	11
20-49.....	8	1,729	1,330	185	16	426	491	70	29
50-99.....	1	15,507	12,138	796	70	1,870	2,806	344	873
100-249.....	1								
250-499.....	1								
West North Central (Missouri), total.....	23	3,416	2,381	354	25	853	1,022	115	127
0.....	2	276	229	35	3	67	80	8	(D)
1-4.....	5								
5-9.....	11	1,405	1,055	140	13	328	374	61	(D)
10-19.....	4	1,735	1,097	179	9	458	568	46	104
20-49.....	1								
50-99.....	1								
South, total ¹	9	13,628	10,967	625	62	1,413	2,176	296	774
0.....	1	195	164	36	3	72	71	9	9
1-4.....	3								
5-9.....	3	13,433	10,803	589	59	1,341	2,105	287	765
10-19.....	1								
20-49.....	1								
50-99.....	1								
West, total ²	12	1,225	703	57	2	137	253	12	54
0.....	4	480	105	8	...	18	31	1	42
1-4.....	4								
5-9.....	2	745	598	49	2	119	222	11	12
10-19.....	1								
20-49.....	1								
FLUORSPAR INDUSTRY									
United States, total.....	104	15,461	9,914	997	263	2,001	3,451	1,415	714
0.....	55	154	119	...	...	...	...	...	18
1-4.....	14	212	146	26	5	40	57	13	41
5-9.....	13	1,313	725	67	22	129	219	100	43
10-19.....	7	1,412	765	87	10	184	297	43	44
20-49.....	9	3,231	2,265	223	39	489	794	241	95
50-99.....	5	9,139	5,894	594	187	1,159	2,084	1,018	473
250-499.....	1								
East North Central (Illinois), total.....	24	8,110	5,426	545	137	1,035	1,719	733	364
0.....	6	70	40	...	...	...	...	...	...
1-4.....	4	297	224	39	9	64	87	36	18
5-9.....	5								
10-19.....	5	7,743	5,162	506	128	971	1,632	697	346
20-49.....	1								
50-99.....	2								
250-499.....	1								
East South Central (Kentucky), total.....	29	1,949	974	184	31	371	584	148	43
0.....	18	49	37	...	...	...	...	...	...
1-4.....	1	577	156	25	4	52	100	26	11
5-9.....	4								
10-19.....	1	1,323	781	159	27	319	484	122	32
20-49.....	4								
50-99.....	1								
West, total ³	51	5,402	3,514	268	95	595	1,148	534	307
0.....	31	35	42	...	...	...	...	...	18
1-4.....	9	143	97	13	4	21	31	7	31
5-9.....	4	508	394	16	10	32	58	44	24
10-19.....	1	4,716	2,981	239	81	542	1,059	483	234
20-49.....	4								
50-99.....	2								
Colorado, total.....	6	3,643	2,336	186	33	415	822	182	208
1-4.....	1	3,643	2,336	186	33	415	822	182	208
10-19.....	1								
20-49.....	2								
50-99.....	2								

See footnotes at end of table.

Table 6.—GENERAL STATISTICS FOR CHEMICAL AND FERTILIZER MINERAL MINING ESTABLISHMENTS CLASSIFIED BY EMPLOYMENT SIZE,
BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

(For explanation of column captions, see INTRODUCTION)

Industry, geographic division, State, and number of employees in establishment	Number of establish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and develop- ment workers (1,000)	Wages and salaries		New capital expendi- tures (\$1,000)
				Production and develop- ment workers	All other employees		Production and develop- ment workers (\$1,000)	All other employees (\$1,000)	
POTASH, SODA, AND BORATE MINERALS INDUSTRY									
United States, total.....	20	107,757	82,213	4,738	1,584	9,381	23,028	10,411	8,990
1-4.....	5	132	113	21	...	27	62	...	199
5-9.....	1								
10-19.....	1								
20-49.....	1								
50-99.....	2	5,547	4,958	262	50	582	1,210	320	376
100-249.....	1								
250-499.....	5								
500-999.....	2								
1,000-2,499.....	2	70,450	53,818	3,188	1,229	6,249	16,065	8,234	6,472
West South Central and Mountain, total ⁴ ..	11	73,102	57,912	3,189	796	6,267	16,488	5,762	5,466
1-4.....	2	73,102	57,912	3,189	796	6,267	16,488	5,762	5,466
5-9.....	1								
20-49.....	1								
50-99.....	1								
250-499.....	3	64,747	51,778	2,787	652	5,429	14,626	4,998	4,990
500-999.....	2								
1,000-2,499.....	1								
New Mexico, total.....	5	64,747	51,778	2,787	652	5,429	14,626	4,998	4,990
250-499.....	2	64,747	51,778	2,787	652	5,429	14,626	4,998	4,990
500-999.....	2								
1,000-2,499.....	1								
Pacific (California), total.....	9	34,655	24,301	1,549	788	3,114	6,540	4,649	3,524
1-4.....	3	34,655	24,301	1,549	788	3,114	6,540	4,649	3,524
10-19.....	1								
50-99.....	1								
100-249.....	1								
250-499.....	2	117,976	62,089	4,579	861	10,119	17,089	4,440	11,229
1,000-2,499.....	1								
PHOSPHATE ROCK INDUSTRY									
United States, total.....	75	117,976	62,089	4,579	861	10,119	17,089	4,440	11,229
0.....	10	257	159	(D)
1-4.....	10	372	265	24	1	44	58	6	(D)
5-9.....	10	1,216	791	60	4	123	183	14	173
10-19.....	6	1,123	799	64	5	158	241	14	37
20-49.....	9	5,972	3,642	272	24	570	1,020	129	1,445
50-99.....	11	24,894	14,015	788	113	1,747	2,925	645	1,445
100-249.....	14	58,360	29,890	2,038	334	4,636	7,526	1,742	2,130
250-499.....	4	25,782	12,528	1,333	380	2,841	5,136	1,890	2,613
500-999.....	1								
South Atlantic (Florida), total.....	33	94,441	46,015	3,283	665	7,495	12,352	3,443	7,996
0.....	6	660	445	33	1	69	74	3	(D)
1-4.....	3								
5-9.....	2								
10-19.....	1								
50-99.....	6	16,480	7,484	470	70	1,117	1,599	385	(D)
100-249.....	11	77,301	38,086	2,780	594	6,309	10,679	3,055	4,379
250-499.....	3								
500-999.....	1								
East South Central (Tennessee), total....	28	14,502	9,605	685	106	1,410	2,066	512	538
0.....	3	205	172	11	...	23	33	5	(D)
1-4.....	5								
5-9.....	7								
10-19.....	3								
20-49.....	5	1,012	632	43	3	87	129	11	171
50-99.....	2	531	482	30	2	68	107	2	(D)
100-249.....	3	1,832	1,179	124	9	269	405	40	120
		10,922	7,140	477	92	963	1,392	454	123

See footnotes at end of table.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 6.—GENERAL STATISTICS FOR CHEMICAL AND FERTILIZER MINERAL MINING ESTABLISHMENTS CLASSIFIED BY EMPLOYMENT SIZE, BY GEOGRAPHIC DIVISIONS AND STATES: 1954--Continued

(For explanation of column captions, see INTRODUCTION)

Industry, geographic division, State, and number of employees in establishment	Number of establish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and develop- ment workers (1,000)	Wages and salaries		New capital expendi- tures (\$1,000)
				Production and develop- ment workers	All other employees		Production and develop- ment workers (\$1,000)	All other employees (\$1,000)	
PHOSPHATE ROCK INDUSTRY—Continued									
Mountain, total ⁵	14	9,033	6,469	611	90	1,214	2,671	485	2,695
0.....	1	560	283	31	4	78	139	13	13
1-4.....	2								
5-9.....	1								
10-19.....	2								
20-49.....	4	4,140	2,463	148	15	301	615	89	1,325
50-99.....	3	4,333	3,723	432	71	835	1,917	383	1,357
250-499.....	1								
Montana, total.....	6	3,435	3,237	311	58	625	1,465	301	1,114
0.....	1	3,435	3,237	311	58	625	1,465	301	1,114
1-4.....	1								
5-9.....	1								
10-19.....	1								
50-99.....	1								
250-499.....	1								
ROCK SALT INDUSTRY									
United States, total.....	15	35,658	30,013	1,659	266	3,861	7,117	1,454	2,185
0.....	1	4,947	3,793	294	66	633	1,071	342	182
1-4.....	2								
20-49.....	1								
50-99.....	4								
100-249.....	6	30,711	26,220	1,365	200	3,228	6,046	1,112	2,003
250-499.....	1								
Middle Atlantic and North Central, total ⁶	6	20,879	18,555	843	83	2,015	4,329	583	912
20-49.....	1	20,879	18,555	843	83	2,015	4,329	583	912
50-99.....	1								
100-249.....	4								
West South Central and West, total ⁷	9	14,779	11,458	816	183	1,846	2,788	871	1,273
0.....	1	14,779	11,458	816	183	1,846	2,788	871	1,273
1-4.....	2								
50-99.....	3								
100-249.....	2								
250-499.....	1								
Louisiana, total.....	4	13,109	10,113	704	151	1,574	2,330	700	1,186
50-99.....	1	13,109	10,113	704	151	1,574	2,330	700	1,186
100-249.....	2								
250-499.....	1								
SULFUR INDUSTRY									
United States, total.....	20	140,685	124,166	3,077	1,018	6,229	14,619	6,567	8,814
0.....	1	140,685	124,166	3,077	1,018	6,229	14,619	6,567	8,814
1-4.....	4								
5-9.....	1								
10-19.....	1								
50-99.....	2								
100-249.....	7								
250-499.....	2								
500-999.....	2								
CHEMICAL AND FERTILIZER MINERAL MINING, N.E.C., INDUSTRY									
United States, total.....	39	21,780	18,074	1,209	233	2,424	4,569	1,357	4,425
0.....	8	40	26	3
1-4.....	7	208	174	15	...	25	48	1	12
5-9.....	4	107	85	18	5	33	57	33	8
10-19.....	9	1,171	1,041	101	20	202	329	100	2,273
20-49.....	6	4,031	3,327	132	35	283	557	211	379
50-99.....	2	16,223	13,421	943	173	1,881	3,578	1,012	1,750
100-249.....	2								
500-999.....	1								

D Withheld to avoid approximately disclosing figures of individual companies.

¹See table 3, footnote 1.²See table 3, footnote 2.³See table 3, footnote 3.⁴See table 3, footnote 4.⁵See table 3, footnote 5.⁶See table 3, footnote 6.⁷See table 3, footnote 7.

Table 7.—MONTHLY EMPLOYMENT IN THE CHEMICAL AND FERTILIZER MINERAL MINING INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES, AND BY TYPE OF OPERATION: 1954

Industry, geographic division, State, and type of operation	Average employ- ment for the year ¹	Number of employees by month											
		Jan- uary	Feb- ruary	March	April	May	June	July	August	Sep- tember	Oc- tober	No- vember	De- cember
BARITE INDUSTRY													
United States, total.....	1,125	1,093	1,094	1,129	1,142	1,170	1,199	1,209	1,209	1,187	833	1,109	1,125
GEOGRAPHIC DIVISION AND STATE													
West North Central (Missouri).....	379	356	349	372	375	384	394	400	400	389	385	391	363
South.....	687	680	686	699	711	726	744	748	742	731	390	662	709
West.....	59	57	59	58	56	60	61	61	67	67	58	56	53
TYPE OF OPERATION													
Open-pit mines with preparation plants.....	708	670	671	698	704	713	727	733	738	722	723	724	684
All other operations.....	417	423	423	431	438	457	472	476	471	465	110	385	441
FLUORSPAR INDUSTRY													
United States, total.....	1,260	1,645	1,591	1,472	1,393	1,113	1,171	1,166	1,141	1,148	1,120	1,077	1,076
GEOGRAPHIC DIVISION AND STATE													
East North Central (Illinois).....	682	872	807	679	638	575	653	666	640	649	650	631	688
East South Central (Kentucky).....	215	389	392	398	388	184	159	143	138	128	107	88	83
West.....	363	384	392	395	367	354	359	357	363	371	363	358	305
Colorado.....	219	221	221	227	214	224	228	229	229	228	221	218	180
TYPE OF OPERATION													
Producing establishments, total ²	1,202	1,565	1,517	1,400	1,327	1,059	1,116	1,112	1,087	1,098	1,075	1,029	1,033
Open-pit mines ³	46	54	58	55	44	43	44	44	36	47	47	39	31
Open-pit and underground mines ³	148	150	151	153	145	153	157	158	155	154	153	146	111
Underground mines ³	950	1,298	1,244	1,130	1,077	802	854	851	838	840	821	790	837
Preparation plants only.....	58	63	64	62	61	61	61	59	58	57	54	54	54
Nonproducing establishments.....	18	39	33	31	25	13	14	13	13	9	7	7	5
POTASH, SODA AND BORATE MINERALS INDUSTRY													
United States, total.....	6,323	6,367	6,446	6,429	6,385	6,289	6,304	6,280	6,195	6,220	6,305	6,276	6,333
West South Central and Mountain.....	3,986	4,024	4,059	4,023	4,001	3,967	3,982	3,957	3,937	3,957	3,956	3,943	3,999
New Mexico.....	3,439	3,443	3,485	3,461	3,440	3,416	3,427	3,419	3,410	3,432	3,436	3,423	3,465
Pacific (California).....	2,337	2,343	2,387	2,406	2,384	2,322	2,322	2,323	2,258	2,263	2,349	2,333	2,334
PHOSPHATE ROCK INDUSTRY													
United States, total.....	5,440	5,505	5,503	5,537	5,590	5,613	5,639	5,570	5,556	5,272	5,192	5,142	5,204
GEOGRAPHIC DIVISION AND STATE													
South Atlantic (Florida).....	3,948	4,007	4,016	4,036	4,040	4,021	4,072	4,034	3,994	3,821	3,769	3,775	3,782
East South Central (Tennessee).....	791	810	802	819	843	833	796	767	794	782	788	757	758
Mountain.....	701	688	685	682	707	759	771	769	768	669	635	610	664
Montana.....	369	366	364	358	362	375	384	375	379	381	363	361	358
TYPE OF OPERATION													
Open-pit mines ³	3,666	3,691	3,692	3,729	3,766	3,788	3,803	3,752	3,722	3,571	3,525	3,482	3,491
Combination open-pit and underground mines and underground mines ³	554	573	568	562	574	583	593	586	601	507	492	489	534
Preparation plants only.....	1,220	1,241	1,243	1,246	1,250	1,242	1,243	1,232	1,233	1,194	1,175	1,170	1,179
ROCK SALT INDUSTRY													
United States, total.....	1,925	1,957	1,951	1,898	1,884	1,890	1,892	1,885	1,904	1,951	1,947	1,973	1,966
Middle Atlantic and North Central.....	926	942	935	925	918	912	907	890	895	933	935	963	961
West South Central and West.....	999	1,015	1,016	973	966	978	985	995	1,009	1,018	1,012	1,010	1,005
Louisiana.....	855	874	871	830	819	837	841	851	864	873	869	868	863
SULFUR INDUSTRY													
United States.....	4,095	4,185	4,170	4,161	4,103	4,091	4,194	4,132	4,104	4,041	4,000	3,981	3,976
CHEMICAL AND FERTILIZER MINERAL MINING, N.E.C. INDUSTRY													
United States.....	1,442	1,436	1,388	1,428	1,439	1,447	1,478	1,453	1,450	1,446	1,438	1,458	1,462

¹Represents the sum of the average employment figures for the year as shown in the separate establishment reports. These are the averages shown in other tables of this report. Because of roundings, the sum of such average figures may differ slightly from the average of the January to December totals shown in this table.

²Excludes 40 employees at central administrative offices, which were not classified by type of operation.

³Represents mines only and mines operated with associated preparation plants.

Table 8.—GENERAL STATISTICS FOR SELECTED CHEMICAL AND FERTILIZER MINERAL MINING INDUSTRIES IN THE UNITED STATES, CLASSIFIED BY OUTPUT PER MAN-HOUR, BY GEOGRAPHIC DIVISIONS: 1954

(For explanation of column captions, see INTRODUCTION)

Tons per man-hour ¹	Number of establishments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
BARITE INDUSTRY									
United States.....	44	18,269	14,051	1,036	89	2,403	3,451	423	955
POTASH, SODA, AND BORATE MINERALS INDUSTRY									
United States, total.....	20	107,757	82,213	4,738	1,584	9,381	23,028	10,411	8,990
Less than 0.200.....	2	11,931	7,529	598	56	1,210	2,208	327	1,051
0.200-0.299.....	5								
0.300-0.399.....	1								
0.400-0.499.....	2	57,455	44,891	2,720	641	5,346	14,003	4,715	4,405
0.500-0.599.....	3								
0.600-0.699.....	1								
0.700-0.799.....	1	38,371	29,793	1,420	887	2,825	6,817	5,369	3,534
0.800-0.999.....	1								
2.000 and over.....	1								
Unclassified ²	3								
PHOSPHATE ROCK INDUSTRY									
United States, total.....	75	117,976	62,089	4,579	861	10,119	17,089	4,440	11,229
0.200-0.299.....	2	2,997	2,055	374	41	839	1,094	225	91
0.300-0.399.....	2								
0.400-0.599.....	2								
0.600-0.799.....	1	12,664	8,210	780	144	1,842	3,073	793	633
0.800-0.999.....	4								
1.000-1.499.....	4								
1.500-1.999.....	5	21,311	13,513	1,245	263	2,863	4,812	1,384	1,788
2.000-2.999.....	7								
3.000-3.999.....	5								
4.000 and over.....	10	19,348	5,952	537	130	1,197	2,034	654	452
Unclassified ²	33	45,424	23,752	686	87	1,503	2,562	475	1,345
South Atlantic (Florida), total.....	33	94,441	46,015	3,283	665	7,495	12,352	3,443	7,996
0.200-0.299.....	1	12,361	7,950	808	142	1,970	3,085	783	560
0.300-0.399.....	3								
0.400-0.599.....	2								
0.600-0.799.....	1	20,038	12,842	1,183	260	2,731	4,581	1,377	1,739
0.800-0.999.....	3								
1.000-1.499.....	2								
1.500-1.999.....	3	56,303	23,260	1,048	195	2,308	3,919	1,005	1,679
2.000-2.999.....	5								
3.000-3.999.....	3								
4.000 and over.....	5	5,739	1,963	244	68	486	767	278	4,018
Unclassified ²	11								
East South Central (Tennessee), total..	28	14,502	9,605	685	106	1,410	2,066	512	538
0.300-0.399.....	2	2,589	1,740	308	34	643	921	172	91
0.400-0.599.....	2								
0.600-0.799.....	1								
0.800-0.999.....	1	7,319	5,399	142	17	314	530	100	92
1.000-1.499.....	1								
1.500-1.999.....	1								
2.000-2.999.....	1	4,594	2,466	235	55	453	615	240	355
3.000-3.999.....	2								
4.000 and over.....	4								
Unclassified ²	14								
Mountain, total.....	14	9,033	6,469	611	90	1,214	2,671	485	2,695
0.200-0.299.....	1	3,134	2,291	133	17	278	539	94	148
0.300-0.399.....	1								
0.400-0.599.....	1								
0.600-0.799.....	1	14,860	12,804	572	47	1,293	2,418	239	1,120
0.800-0.999.....	1								
1.000-1.499.....	1								
1.500-1.999.....	1	6,939	5,262	446	162	1,051	1,526	737	464
2.000-2.999.....	1								
4.000 and over.....	1								
Unclassified ²	8								
ROCK SALT INDUSTRY									
United States, total.....	15	35,658	30,013	1,659	266	3,861	7,117	1,454	2,185
0.200-0.299.....	1	13,859	11,947	641	57	1,517	3,173	478	601
0.300-0.399.....	1								
0.400-0.599.....	3								
0.600-0.799.....	1	14,860	12,804	572	47	1,293	2,418	239	1,120
0.800-0.999.....	1								
1.000-1.499.....	1								
1.500-1.999.....	1	6,939	5,262	446	162	1,051	1,526	737	464
2.000-2.999.....	1								
4.000 and over.....	1								
Unclassified ²	6								

D Withheld to avoid approximately disclosing figures of individual companies. ¹Represents primary products of the specified industry in: short tons for barite; potash, soda, and borate minerals; and rock salt; and long tons for phosphate rock. For mines only, represents tons of crude minerals produced per man-hour. For mills with mills represents tons of crude minerals shipped plus prepared minerals produced per man-hour. For mills only, represents tons of prepared minerals produced per man-hour. ²Principally, in terms of value of shipments and employment, represents reports indicating that a substantial proportion of the production was performed by contractors, for whom employee man-hours are not included above. This group also includes for the barite and phosphate rock industries a number of reports for small establishments which indicate that a significant portion of the work was performed by proprietors or partners; man-hours for these proprietors are not included in this table. Significant ratios of output per man-hour could not be computed for these groups.

Table 9.--GENERAL STATISTICS FOR CHEMICAL AND FERTILIZER MINERAL MINING ESTABLISHMENTS CLASSIFIED BY THE RATIO OF WAGES AND SALARIES TO VALUE ADDED IN MINING FOR THE UNITED STATES; AND FOR PHOSPHATE ROCK ESTABLISHMENTS, BY GEOGRAPHIC DIVISIONS: 1954

(For explanation of column captions, see INTRODUCTION)

Industry, geographic division, and ratio of wages and salaries to value added in mining	Number of establish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expendi- tures (\$1,000)
				Production and develop- ment workers	All other employees		Production and develop- ment workers (\$1,000)	All other employees (\$1,000)	
BARITE INDUSTRY									
United States, total.....	44	18,269	14,051	1,036	89	2,403	3,451	423	955
Less than 0.30.....	9	9,440	7,704	230	34	567	876	181	494
0.30-0.39.....	8	4,958	3,942	420	26	907	1,407	102	217
0.40-0.49.....	10	1,330	729	117	2	268	317	9	(D)
0.50-0.59.....	7	1,449	986	152	16	378	480	77	77
0.60-0.69.....	5	976	650	110	11	267	355	54	101
0.70-0.79.....	1	116	40	7	...	16	16	...	(D)
Unclassified ¹	4								
FLUORSPAR INDUSTRY									
United States, total.....	104	15,461	9,914	997	263	2,001	3,451	2,415	714
Less than 0.30.....	6	1,012	873	38	4	72	127	14	16
0.30-0.39.....	10	5,587	3,244	250	53	507	901	298	233
0.40-0.49.....	9	5,662	4,316	409	101	842	1,425	505	295
0.50-0.59.....	3	1,908	884	139	21	295	510	108	122
0.60-0.69.....	2								
0.70-0.79.....	5	287	184	36	12	61	103	53	6
0.80-0.89.....	3								
0.90-0.99.....	2	846	288	125	32	224	385	183	21
1.00 and over.....	7								
Unclassified ¹	57	159	125	...	...	...	...	...	21
POTASH, SODA, AND BORATE MINERALS INDUSTRY									
United States, total.....	20	107,757	82,213	4,738	1,584	9,381	23,028	10,411	8,990
Less than 0.30.....	6	23,487	19,149	864	174	1,779	3,896	1,173	1,878
0.30-0.39.....	3	84,270	63,064	3,874	1,410	7,602	19,132	9,238	7,112
0.40-0.49.....	5								
0.50-0.59.....	3								
0.70-0.79.....	1								
1.00 and over.....	6								
PHOSPHATE ROCK INDUSTRY									
United States, total.....	75	117,976	62,089	4,579	861	10,119	17,089	4,440	11,229
Less than 0.30.....	19	45,253	27,963	829	92	1,910	3,209	498	1,463
0.30-0.39.....	13	17,341	11,392	870	97	1,956	3,213	605	711
0.40-0.49.....	11	20,283	8,709	768	167	1,691	3,013	858	2,546
0.50-0.59.....	4	370	325	38	...	86	162	5	170
0.60-0.69.....	8	16,792	6,854	1,006	194	2,117	3,416	914	1,373
0.70-0.79.....	4	2,106	1,258	186	48	411	723	244	230
0.80-0.89.....	2	15,574	5,429	882	263	1,948	3,353	1,316	(D)
0.90-0.99.....	2								
1.00 and over.....	2	257	159	...	...	...	...	...	(D)
Unclassified ¹	10								
South Atlantic, total.....	33	94,441	46,015	3,283	665	7,495	12,352	3,443	7,996
Less than 0.30.....	10	37,021	21,743	719	74	1,641	2,728	434	1,343
0.30-0.39.....	5	28,978	14,741	1,141	181	2,668	4,463	1,032	945
0.40-0.49.....	3								
0.60-0.69.....	4	12,160	3,556	522	117	1,156	1,737	517	1,034
0.70-0.79.....	1	16,083	5,864	901	293	2,030	3,424	1,460	4,674
0.80-0.89.....	2								
0.90-0.99.....	2	199	111	...	...	...	...	...	(D)
Unclassified ¹	6								
East South Central, total.....	28	14,506	9,609	685	106	1,410	2,066	512	538
Less than 0.30.....	7	9,223	6,626	226	24	473	727	130	234
0.30-0.39.....	7								
0.40-0.49.....	3	2,788	1,452	166	47	333	506	201	213
0.50-0.59.....	3								
0.60-0.69.....	3	2,378	1,484	287	34	591	816	176	91
0.70-0.79.....	1								
1.00 and over.....	1	117	47	6	1	13	17	5	(D)
Unclassified ¹	3								
Mountain, total.....	14	9,029	6,465	611	90	1,214	2,671	485	2,695
Less than 0.30.....	2	5,183	3,781	248	30	518	1,150	169	2,153
0.30-0.39.....	1								
0.40-0.49.....	5	3,846	2,684	363	60	696	1,521	316	542
0.50-0.59.....	1								
0.60-0.69.....	1								
0.70-0.79.....	2								
1.00 and over.....	1								
Unclassified ¹	1								

See footnotes at end of table.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 9.--GENERAL STATISTICS FOR CHEMICAL AND FERTILIZER MINERAL MINING ESTABLISHMENTS CLASSIFIED BY THE RATIO OF WAGES AND SALARIES TO VALUE ADDED IN MINING FOR THE UNITED STATES; AND FOR PHOSPHATE ROCK ESTABLISHMENTS, BY GEOGRAPHIC DIVISIONS: 1954

Industry, geographic division, and ratio of wages and salaries to value added in mining	Number of establish- ments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expendi- tures (\$1,000)
				Production and develop- ment workers	All other employees		Production and develop- ment workers (\$1,000)	All other employees (\$1,000)	
SULFUR INDUSTRY									
United States, total.....	20	140,685	124,166	3,077	1,018	6,229	14,619	6,567	8,814
Less than 0.30.....	9	140,685	124,166	3,077	1,018	6,229	14,619	6,567	8,814
0.30-0.39.....	2								
0.40-0.49.....	2								
0.50-0.59.....	1								
1.00 and over.....	6								
ROCK SALT INDUSTRY									
United States, total.....	15	35,658	30,013	1,659	266	3,861	7,117	1,454	2,185
Less than 0.30.....	6	27,606	23,846	1,069	89	2,412	4,716	498	1,932
0.30-0.39.....	2								
0.40-0.49.....	2								
0.50-0.59.....	3								
1.00 and over.....	1	8,052	6,167	590	177	1,449	2,401	956	253
Unclassified ¹	1								
CHEMICAL AND FERTILIZER MINERAL MINING, N.E.C., INDUSTRY									
United States, total.....	39	21,780	18,074	1,209	233	2,424	4,569	1,357	4,425
Less than 0.30.....	8	6,186	5,541	125	27	239	575	220	338
0.30-0.39.....	4	13,910	11,242	788	162	1,676	3,109	923	3,802
0.40-0.49.....	3								
0.50-0.59.....	2								
0.60-0.69.....	1								
0.70-0.79.....	1	993	882	186	13	295	535	67	243
0.80-0.89.....	5	415	274	51	12	98	178	45	21
0.90-0.99.....	1	236	109	59	19	116	172	102	18
1.00 and over.....	6								
Unclassified ¹	8	40	26	...	...	...	...	...	3

D Withheld to avoid approximately disclosing figures of individual companies.

¹Represents establishments reporting less than \$500 for wages and salaries.²Includes 40 employees at central offices, paid \$254,000 in salaries, not classified by ratio of wages and salaries to value added.

Table 10.—HORSEPOWER OF POWER EQUIPMENT USED IN THE CHEMICAL AND FERTILIZER MINERAL MINING INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND BY TYPE OF OPERATION: 1954

(For explanation of column captions, see INTRODUCTION)

Industry, geographic division, and type of operation	Aggregate horsepower per production worker	Aggregate horsepower (prime movers and electric motors driven by purchased energy)					
		Total	Loading equipment	Transportation equipment		All other equipment	
				Highway type	Other		
BARITE INDUSTRY							
United States, total.....	65	67,526	10,147	22,715	5,303	29,361	
Geographic Division							
West North Central.....	74	26,100	4,886	11,422	2,473	7,319	
South.....	58	35,940	4,322	9,659	2,830	19,129	
West.....	96	5,486	939	1,634	...	2,913	
Type of Operation							
Open-pit mines with preparation plants.....	84	53,896	8,565	19,745	5,273	20,313	
All other operations.....	35	13,630	1,582	2,970	30	9,048	
Prime movers (horsepower)							
	Total	By type of equipment				By use	
		Loading equipment	Transportation equipment		All other equipment	Driving generators	Not driving generators
			Highway type	Other			
United States, total.....	40,855	9,397	22,715	5,303	3,440	252	40,603
Geographic Division							
West North Central.....	20,228	4,886	11,422	2,473	1,447	150	20,078
South.....	17,234	3,572	9,659	2,830	1,173	...	17,234
West.....	3,393	939	1,634	...	820	102	3,291
Type of Operation							
Open-pit mines with preparation plants.....	36,118	8,065	19,745	5,273	3,035	252	35,866
All other operations.....	4,737	1,332	2,970	30	405	...	4,737
Electric motors (horsepower)							
	Total	By type of equipment			By type of energy used		
		Loading equipment	Transportation equipment	All other equipment	Driven by purchased energy	Driven by energy generated and used at same establishment	
United States, total.....	26,922	750	...	26,172	26,671	251	
Geographic Division							
West North Central.....	6,058	...	...	6,058	5,872	186
South.....	18,706	750	...	17,956	18,706	...	
West.....	2,158	...	...	2,158	2,093	65
Type of Operation							
Open-pit mines with preparation plants.....	18,029	500	...	17,529	17,778	251	
All other operations.....	8,893	250	...	8,643	8,893	...	

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 10.—HORSEPOWER OF POWER EQUIPMENT USED IN THE CHEMICAL AND FERTILIZER MINERAL

(For explanation of column

Industry, geographic division, and type of operation		Aggregate horsepower per production worker	Aggregate horsepower (prime movers and electric motors driven by purchased energy)				
			Total	Loading equipment	Transportation equipment		All other equipment
					Highway type	Other	
FLUORSPAR INDUSTRY							
1	United States, total.....	49	49,351	6,117	10,467	826	31,941
Geographic Division							
2	East North Central.....	48	26,409	2,489	4,516	661	18,743
3	East South Central.....	34	6,189	1,029	884	80	4,196
4	West.....	63	16,753	2,599	5,067	85	9,002
Type of Operation							
5	Producing establishments, total.....	49	47,805	5,657	10,259	826	31,063
6	Open-pit mines ¹	65	2,737	692	1,515	60	470
7	Open-pit and underground mines ¹	65	8,066	1,125	2,182	25	4,734
8	Underground mines ¹	45	35,157	3,695	5,902	741	24,819
9	Preparation plants only.....	46	1,845	145	660	...	1,040
10	Nonproducing establishments.....	97	1,546	460	208	...	878
POTASH, SODA, AND BORATE MINERALS INDUSTRY							
11	United States, total.....	41	194,843	7,520	17,891	10,682	158,750
Geographic Division							
12	West South Central and Mountain.....	36	114,801	5,699	12,561	9,707	86,834
13	Pacific.....	52	80,042	1,821	5,330	975	71,916
Type of Operation							
14	Brine operations.....	61	74,634	1,252	3,680	580	69,122
15	All other operations.....	34	120,209	6,268	14,211	10,102	89,628
PHOSPHATE ROCK INDUSTRY							
16	United States, total.....	78	356,544	77,536	55,681	36,939	186,388
Geographic Division							
17	South Atlantic.....	80	263,909	61,880	33,274	10,861	157,894
18	East South Central.....	96	65,669	11,694	15,303	21,898	16,774
19	Mountain.....	44	26,966	3,962	7,104	4,180	11,720
Type of Operation							
20	Open-pit mines:						
21	Without preparation plant.....	80	11,085	100	4,290	6,688	7
21	With preparation plant.....	93	279,646	71,179	39,832	21,273	147,482
22	Combination open-pit and underground mines ¹	34	16,199	3,012	4,356	1,632	7,079
23	Preparation plants only.....	51	49,614	3,245	7,203	7,346	31,820
ROCK SALT INDUSTRY							
24	United States, total.....	29	47,871	7,641	3,342	8,882	28,006
Geographic Division							
25	Middle Atlantic and North Central.....	33	27,890	5,313	2,409	6,476	13,692
26	West South Central and West.....	24	19,981	2,328	933	2,406	14,314
SULFUR INDUSTRY							
27	United States.....	52	159,128	4,765	29,266	28,503	96,594
CHEMICAL AND FERTILIZER MINERAL MINING, N.E.C., INDUSTRY							
28	United States, total.....	44	52,704	5,457	6,582	3,045	37,620
29	Pyrites subindustry.....	37	29,186	2,934	2,504	1,031	22,717
30	Miscellaneous chemical and fertilizer mineral mining subindustry.....	55	23,518	2,523	4,078	2,014	14,903

¹Represents mines only and mines operated with associated preparation plants.

CHEMICAL AND FERTILIZER MINERAL MINING

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MINING INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND BY TYPE OF OPERATION: 1954--Continued

Captions, see INTRODUCTION)

Prime movers (horsepower)							Electric motors (horsepower)						
Total					Driving generators	Not driving generators	Total				Driven by purchased energy	Driven by energy generated and used at same establishment	
All equipment	Loading equipment	Transportation equipment		All other equipment			All equipment	Loading equipment	Transportation equipment	All other equipment			
		Highway type	Other										
27,977	4,292	10,467	610	12,608	6,025	21,952	30,050	1,877	1,227	26,946	21,374	8,676	1
15,081	1,481	4,516	470	8,614	5,583	9,498	20,004	1,060	1,202	17,742	11,328	8,676	2
2,598	1,029	884	80	605	...	2,598	3,591	...	...	3,591	3,591	...	3
10,298	1,782	5,067	60	3,389	442	9,856	6,455	817	25	5,613	6,455	...	4
27,366	4,292	10,259	610	12,205	5,980	21,386	29,115	1,417	1,227	26,471	20,439	8,676	5
2,267	692	1,515	60	...	...	2,267	470	...	...	470	470	...	6
4,403	855	2,182	...	1,366	10	4,393	3,663	270	25	3,363	3,663	...	7
19,923	2,632	5,902	550	10,839	5,970	13,953	23,910	1,115	1,202	21,593	15,234	8,676	8
773	113	660	...	...	...	773	1,072	32	...	1,040	1,072	...	9
611	...	208	...	403	45	566	935	460	...	475	935	...	10
111,656	2,208	17,891	3,838	87,719	74,039	37,617	173,114	8,615	9,207	155,292	83,187	89,927	11
56,985	1,605	12,561	3,838	38,981	34,331	22,654	116,182	7,347	8,217	100,618	57,816	58,366	12
54,671	603	5,330	...	48,738	39,708	14,963	56,932	1,268	990	54,674	25,371	31,561	13
58,978	1,246	3,680	580	53,472	41,243	17,735	48,441	42	...	48,399	15,656	32,785	14
52,678	962	14,211	3,258	34,247	32,796	19,882	124,673	8,573	9,207	106,893	67,531	57,142	15
116,564	24,919	55,681	17,256	18,708	14,016	102,548	256,338	58,017	19,683	178,638	239,980	16,358	16
73,279	12,476	33,274	10,861	16,668	13,541	59,738	206,788	54,804	...	151,984	190,630	16,158	17
28,971	9,628	15,303	2,675	1,365	75	28,896	36,698	2,066	19,223	15,409	36,698	...	18
14,314	2,815	7,104	3,720	675	400	13,914	12,852	1,147	460	11,245	12,652	200	19
10,978	...	4,290	6,688	...	...	10,978	107	100	...	7	107	...	20
75,126	20,019	39,832	2,050	13,225	9,368	65,758	216,320	56,440	19,223	140,657	204,520	11,800	21
7,868	1,865	4,356	1,172	475	200	7,668	8,331	1,267	460	6,604	8,331	...	22
22,592	3,035	7,203	7,346	5,008	4,448	18,144	31,580	210	...	31,370	27,022	4,558	23
17,454	3,873	3,342	2,572	7,667	8,308	9,146	37,906	5,433	8,081	24,392	30,417	7,489	24
6,880	2,123	2,409	750	1,598	3,248	3,632	25,160	4,590	6,976	13,594	21,010	4,150	25
10,574	1,750	933	1,822	6,069	5,060	5,514	12,746	843	1,105	10,798	9,407	3,339	26
155,690	4,663	29,266	28,503	93,258	31,728	123,962	45,849	4,789	...	41,060	3,438	42,411	27
19,221	2,597	6,582	1,881	8,161	...	19,221	33,483	2,860	1,164	29,459	33,483	...	28
3,280	445	2,504	31	300	...	3,280	25,906	2,489	1,000	22,417	25,906	...	29
15,941	2,152	4,078	1,850	7,861	...	15,941	7,577	371	164	7,042	7,577	...	30

Table 11.--NUMBER OF POWER LOADING MACHINES IN THE CHEMICAL AND FERTILIZER MINERAL MINING

Type of loading equipment		Barite Industry					Fluorspar Industry				
		United States		West North Central	South	West	United States		East North Central	East South Central	West
		1954	1939				1954	1939			
1	Surface loading equipment, total.....	132	61	61	60	11	91	8	53	11	27
	By kind of power used										
2	Steam.....	...	8	...	...	...	3	1	3	...	...
3	Electric and Diesel-electric.....	28	8	...	28	...	43	1	30	2	11
4	Diesel.....	55	} 45	{ 32	20	3	14	} 6	{ 5	2	7
5	Gasoline and other.....	49			12	8	31			7	9
6	Power shovels, total.....	56	44	32	19	5	17	4	9	3	5
	By kind of power used										
7	Steam.....	...	6	...	...	...	...	...	...	...	...
8	Electric and Diesel-electric.....	3	2	...	3	...	2	...	2	...	...
9	Diesel.....	30	} 36	{ 18	10	2	2	} 4	{ 1	...	1
10	Gasoline and other.....	23			6	3	13			3	4
	By dipper or bucket capacity (cubic yards)										
11	Less than 3.....	56	44	32	19	5	17	4	9	3	5
12	3-5 inclusive.....	...	...	...	...	...	...	...	...	...	...
13	6-12 inclusive.....	...	...	...	...	...	...	...	...	...	...
14	Dragline excavators, total.....	11	5	9	1	1	7	...	4	3	...
	By kind of power used										
15	Steam.....	...	...	...	...	...	...	...	...	...	...
16	Electric and Diesel-electric.....	...	...	...	...	...	1	...	1	...	...
17	Diesel.....	8	} 5	{ 7	1	...	1	...	...	1	...
18	Gasoline and other.....	3			...	1	5	...	3	2	...
	By dipper or bucket capacity (cubic yards)										
19	Less than 3.....	8	5	6	1	1	7	...	4	3	...
20	3-5 inclusive.....	3	...	3	...	...	...	...	...	...	...
21	6-12 inclusive.....	...	...	...	...	...	...	...	...	...	...
22	More than 12.....	...	...	...	...	...	...	...	...	...	...
23	Scraper loaders, total.....	35	4	1	32	2	14	1	3	2	9
	By kind of power used										
24	Electric and Diesel-electric.....	25	1	...	25	...	11	1	2	2	7
25	Diesel.....	5	} 3	{ 1	5	...	2	...	1	...	1
26	Gasoline and other.....	5			2	2	1	...	...	...	1
	By rated horsepower										
27	Less than 10.....	29	3	1	27	1	9	...	2	...	7
28	10-25 inclusive.....	1	1	...	1	...	2	1	...	2	...
29	26-100 inclusive.....	5	...	...	4	1	3	...	1	...	2
30	More than 100.....	...	...	...	...	...	...	...	...	...	...
31	Clamshell and orange peel loaders, total.....	...	3	...	...	...	...	1	...	...	...
	By kind of power used										
32	Steam.....	...	2	...	...	...	...	1	...	...	...
33	Electric and Diesel-electric.....	...	...	...	...	...	...	...	...	...	...
34	Diesel.....	...	} 1	{ ...	...	...	...	...	...	...	...
35	Gasoline and other.....	...			...	...	...	...	...	...	...
36	Cranes and hoists, total.....	1	...	...	...	1	27	...	25	...	2
	By kind of power used										
37	Steam.....	...	...	...	...	...	3	...	3	...	...
38	Electric and Diesel-electric.....	...	...	...	...	...	22	...	22	...	...
39	Diesel.....	...	...	...	...	...	...	...	...	...	...
40	Gasoline and other.....	1	...	...	...	1	2	...	...	...	2
41	Pumps, total ¹	(1)	4	...	...	...	...	...	...	...	...
	By kind of power used										
42	Electric and Diesel-electric.....	...	4	...	...	...	...	...	...	...	...
43	Compressed air.....	(1)	...	...	...	...	...	...	...	...	...
44	Diesel, gasoline, and other.....	(1)	...	...	...	...	...	...	...	...	...
45	All other types of equipment.....	29	1	19	8	2	26	2	12	3	11
	By kind of power used										
46	Steam.....	...	...	...	...	...	...	...	...	...	...
47	Electric and Diesel-electric.....	...	1	...	...	...	7	...	3	...	4
48	Diesel.....	12	...	7	4	1	9	} 2	{ 3	1	5
49	Gasoline and other.....	17	...	12	4	1	10			2	2

See footnotes at end of table.

INDUSTRIES IN THE UNITED STATES: 1954 AND 1939, AND BY GEOGRAPHIC DIVISIONS: 1954

Potash, Soda, and Borate Minerals Industry				Phosphate Rock Industry					Rock Salt Industry			Sulfur		Chemical and Fertilizer Mineral Mining, N.E.C., Industry		
United States		West South Central and Mountain	Pacific	United States		South Atlantic	East South Central	Mountain	United States		West South Central	United States		United States		
1954	1939			1954	1939				1954	1939		1954	1939	1954	1939	
35	14	30	5	401	218	235	126	40	19	7	19	56	30	38	2	
...	1	...	...	4	37	4	...	...	...	1	...	3	11	...	...
12	5	11	1	226	148	180	21	25	11	1	11	14	10	7	...	
15	}	13	2	125	}	41	74	10	6	}	6	35	}	11	}	
8		6	2	46		33	10	31	5		2	2		4		20
4	5	2	2	28	7	1	14	13	1	...	1	17	3	10	1	
...	1	...	...	...	...	...	...	...	...	...	...	2	...	...	...
1	...	1	...	1	1	...	1	...	...	...	...	8	2	...	...
2	}	1	1	17	}	...	7	10	...	...	...	7	}	4	}
1		...	1	10		6	1	6	3	1	...	1		...		6
4	5	2	2	22	7	1	9	12	1	...	1	14	3	7	1	
...	...	...	...	1	...	...	...	1	...	...	...	3	...	3	...
...	...	...	...	5	...	...	5	...	...	...	...	...	...	...	...
10	2	8	2	104	68	51	53	...	4	2	4	24	9	2	...	
...	...	...	...	...	20	...	...	...	...	1	...	...	...	...	...
3	...	2	1	37	24	29	8	...	...	...	...	...	1	1	...
4	}	4	...	61	}	21	40	...	}	1	{	22	}	...	{	
3		2	1	6		24	1	5				...		2		1
10	2	8	2	70	48	19	51	...	4	1	4	24	9	2	...	
...	...	...	...	8	9	6	2	...	...	1	...	...	...	...	...
...	...	...	...	15	}	15	...	...	...	...	...	...	...	...	...
...	...	...	...	11		11	...	...	...	...	...	...	...	...	...
11	6	11	...	14	4	6	8	...	2	4	2	4	1	7	...	
8	5	8	...	2	4	...	2	...	1	...	1	...	1	2	...	
2	}	2	...	8	...	2	6	...	}	4	{	3	}	1	}	
1		1	...	4	...	4				1		...		4
1	...	1	...	2	...	1	1	...	1	...	1	1	...	1	...	
...	2	1	...	1	1	4	1	3	...	
9	4	9	...	2	4	...	2	3	1	3	...	
1	...	1	...	9	...	4	5	
...	9	23	5	4	8	12	1	...	
...	2	17	2	1	11	
...	1	3	1	6	1	
...	6	}	2	4	1	...	1	...	
...		3	
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MINERAL INDUSTRIES--INDUSTRY STATISTICS

Table 11.—NUMBER OF POWER LOADING MACHINES IN THE CHEMICAL AND FERTILIZER MINERAL MINING

Type of loading equipment	Barite Industry			Fluorspar Industry				
	United States		West	United States		East North Central	East South Central	West
	1954	1939		1954	1939			
1 Underground loading equipment, total.....	2	...	2	131	12	87	10	34
By kind of power used								
2 Electric and Diesel-electric.....	...	...	...	12	3	3	...	9
3 Compressed air.....	2	...	2	105	9	71	10	24
4 Diesel.....	...	...	...	8	...	7	...	1
5 Gasoline and other.....	...	...	...	6	...	6	...	...
6 Shovel loaders requiring a minimum working height of 8 feet or less, total.....	2	...	2	40	...	23	5	12
By kind of power used								
7 Electric and Diesel-electric.....	...	...	...	...	...	...	...	...
8 Compressed air.....	2	...	2	40	...	23	5	12
9 Shovel loaders requiring a minimum working height of more than 8 feet, total.....	...	...	...	7	...	3	2	2
By kind of power used								
10 Electric and Diesel-electric.....	...	...	...	2	...	...	...	2
11 Compressed air.....	...	...	...	2	...	...	2	...
12 Diesel.....	...	...	...	3	...	3	...	...
13 Scraper loaders (including slushers), total..	...	...	...	79	12	56	3	20
By kind of power used								
14 Electric and Diesel-electric.....	...	...	...	7	3	...	...	7
15 Compressed air.....	...	...	...	63	9	48	3	12
16 Diesel.....	...	...	...	5	...	4	...	1
17 Gasoline and other.....	...	...	...	4	...	4	...	...
By rated horsepower								
18 Less than 10.....	...	...	...	66	9	51	3	12
19 10-25 inclusive.....	...	...	...	8	3	5	...	3
20 26-100 inclusive.....	...	...	...	5	...	...	...	5
21 More than 100.....	...	...	...	...	...	...	...	...
22 Other types of equipment, total.....	...	...	...	5	...	5	...	...
By kind of power used								
23 Electric and Diesel-electric.....	...	...	...	3	...	3	...	...
24 Compressed air.....	...	...	...	...	...	...	...	...
25 Diesel.....	...	...	...	...	...	...	...	...
26 Gasoline and other.....	...	...	...	2	...	2	...	...

NA Not available.

¹For the barite industry in 1939 and the phosphate rock industry in 1939 and 1954 represents principally sand, gravel, and matrix pumps. In the sulfur industry in 1939 represents water, slush and mud, chemical, and sulfur pumps at well operations employing the Frasch process of mining. Separate figures on pumps were not collected in 1954 for the barite industry, but such pumps are probably included under "All other types of equipment." Separate figures on pumps were not collected in 1954 for the sulfur industry, since pumps of the type used in the Frasch process of mining are not regarded primarily as loading equipment; the 1939 figures for such pumps are excluded from the totals shown for all "Surface loading equipment."

²Includes 174 steam-operated pumps.

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Potash, Soda, and Borate Minerals Industry				Phosphate Rock Industry			Rock Salt Industry				Chemical and Fertilizer Mineral Mining, N.E.C., Industry		
United States		West South Central and Mountain	Pacific	United States		Mountain	United States		Middle Atlantic and North Central	West South Central and West	United States		
1954	1939			1954	1939		1954	1939			1954	1939	1954	1939
122	19	104	18	97	8	97	58	36	45	13	41	5	1
119	19	104	15	39	8	39	55	36	45	10	16	3	2
3	...	...	3	58	...	58	...	...	...	...	24	2	3
...	...	...	...	...	...	...	3	...	...	3	...	...	4
...	...	...	...	...	...	...	...	...	...	...	1	...	5
1	1	1	...	21	1	21	28	18	28	...	11	...	6
1	1	1	...	...	1	...	28	18	28	...	...	...	7
...	...	...	...	21	...	21	...	...	...	...	11	...	8
1	...	...	1	3	...	3	21	7	13	8	...	...	9
...	...	...	...	...	...	...	19	7	13	6	...	...	10
1	...	...	1	3	...	3	...	...	...	...	...	...	11
...	...	...	...	...	...	...	2	...	...	2	...	...	12
31	16	22	9	63	7	63	2	11	...	2	23	5	13
30	16	22	8	39	7	39	2	11	...	2	15	3	14
1	...	...	1	24	...	24	...	...	...	...	8	2	15
...	...	...	...	...	...	...	...	...	...	...	...	...	16
...	...	...	...	...	...	...	...	...	...	...	...	...	17
1	...	...	1	...	...	...	1	...	...	1	2	2	18
21	8	13	8	49	7	49	1	4	...	1	14	3	19
9	8	9	...	14	...	14	...	6	...	...	3	...	20
...	...	...	...	...	...	...	...	1	...	...	4	...	21
89	2	81	8	10	...	10	7	...	4	3	7	...	22
88	2	81	7	...	...	...	6	...	4	2	1	...	23
1	...	...	1	10	...	10	...	...	...	...	5	...	24
...	...	...	...	...	...	...	1	...	...	1	...	...	25
...	...	...	...	...	...	...	...	...	...	...	1	...	26

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 12.—MATERIALS, SUPPLIES, FUELS, AND ELECTRIC ENERGY USED IN THE CHEMICAL AND FERTILIZER MINERAL MINING INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954

(For explanation of line captions, see INTRODUCTION)

Item	BARITE INDUSTRY									
	United States, total		West North Central (Missouri)		South		West			
	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)		
Minerals prepared, total.....1,000 short tons ¹ ..	857	xxx	309	xxx	430	xxx	118	xxx		
Crude ore mined and prepared at the same establishment.....do ¹	857	xxx	309	xxx	430	xxx	118	xxx		
Minerals received from other estab- lishments for preparation ².....do ¹....	...	...	...	...	...	...	...	...
Supplies used.....	xxx	2,251	xxx	578	xxx	1,521	xxx	152		
Fuels used, total.....million kwh equivalent..	222	327	46	139	167	167	9	21		
Bituminous coal.....1,000 short tons..	1	2	1	2	...	...	...	...
Distillate fuel oil.....1,000 barrels..	17	85	8	40	7	39	2	6		
Residual fuel oil.....do....	...	...	...	...	...	...	...	...
Natural gas.....million cu. ft..	484	96	...	...	473	92	11	4
Other fuels.....	xxx	144	xxx	97	xxx	36	xxx	11		
Electric energy purchased.....million kwh..	47	552	9	204	35	321	3	27		
Electric energy generated and used.....do....	...	xxx	...	xxx	...	xxx	...	xxx		
Item	FLUORSPAR INDUSTRY									
	United States, total		East North Central (Illinois)		East South Central (Kentucky)		West			
							Total		Colorado	
	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
Minerals prepared, total.....1,000 short tons ¹ ..	629	xxx	294	xxx	56	xxx	279	xxx	202	xxx
Crude ore mined and prepared at the same establishment.....do ¹	517	xxx	294	xxx	12	xxx	279	xxx	202	xxx
Minerals received from other estab- lishments for preparation ².....do ¹	112	1,728			1,936	44			569	1,220
Supplies used.....	xxx	2,195	xxx			xxx	198		xxx		xxx	791
Fuels used, total.....million kwh equivalent..	346	495	206	217	30	76	110	202	88	155
Bituminous coal.....1,000 short tons..	24	139	22	127	2	12
Distillate fuel oil.....1,000 barrels..	65	255	16	76	11	48	39	131	36	108
Residual fuel oil.....do....			109	32	76	21
Natural gas.....million cu. ft..			109	32	xxx	14	xxx	16	xxx	39	xxx
Other fuels.....	xxx	69	xxx	14	xxx	16	xxx	39	xxx	26
Electric energy purchased.....million kwh..	34	513	18	293	3	49	13	171	11	139
Electric energy generated and used.....do....	14	xxx	14	xxx	...	xxx	...	xxx	...	xxx
Item	POTASH, SODA, AND BORATE MINERALS INDUSTRY									
	United States, total		West South Central and Mountain				Pacific (California)			
			Total		New Mexico					
	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)		
Minerals prepared, total.....1,000 short tons ¹ ..	(NA)	xxx	(NA)	xxx	(NA)	xxx	(NA)	xxx		
Crude ore mined and prepared at the same establishment.....do ¹	(NA)	xxx	(NA)	xxx	(NA)	xxx	(NA)	xxx		
Minerals received from other estab- lishments for preparation ².....do ¹	(D)	17,329	...	...	...	...	(D)	36,249
Supplies used.....	xxx		xxx	312,726	xxx	9,631	xxx			
Fuels used, total.....million kwh equivalent..	5,617	5,594	2,768	1,437	2,145	1,118	2,849	4,157		
Bituminous coal.....1,000 short tons..	1	9	1	9	...	...	...	...
Distillate fuel oil.....1,000 barrels..	1,667	4,069	24	89	9	29	1,643	3,980		
Residual fuel oil.....do....	...	...	...	...	...	...	...	...
Natural gas.....million cu. ft..	8,820	1,328	8,820	1,328	6,910	1,085	...	...
Other fuels.....	xxx	188	xxx	11	xxx	4	xxx	177		
Electric energy purchased.....million kwh..	195	1,641	127	1,047	122	992	68	594		
Electric energy generated and used.....do....	267	xxx	115	xxx	84	xxx	152	xxx		

See footnotes at end of table.

CHEMICAL AND FERTILIZER MINERAL MINING

Table 12.—MATERIALS, SUPPLIES, FUELS, AND ELECTRIC ENERGY USED IN THE CHEMICAL AND FERTILIZER MINERAL MINING INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

Item	PHOSPHATE ROCK INDUSTRY									
	United States, total		South Atlantic (Florida)		East South Central (Tennessee)		Mountain			
							Total		Montana	
	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
Minerals prepared, total.....1,000 short tons ¹ .	54,865	xxx	51,222	xxx	2,725	xxx	918	xxx	139	xxx
Crude ore mined and prepared at the same establishment.....do ¹ ...	44,661	xxx	41,909	xxx	2,725	xxx	918	xxx	139	xxx
Minerals received from other establishments for preparation ².....do ¹ ...	10,204	35,393	9,313	32,212						
Supplies used.....	xxx	11,917	xxx	9,363	xxx	3,675	xxx	2,060	xxx	775
Fuels used, total.....million kwh equivalent..	2,338	3,348	1,845	2,601	354	456	139	291	7	19
Bituminous coal.....1,000 short tons..	21	150	1	2	13	88	7	60	(D)	(D)
Distillate fuel oil.....1,000 barrels..	822	2,142	1,041	2,513	24	92	46	202	2	9
Residual fuel oil.....do....	289	665			...	...	...	...	...	...
Natural gas.....million cu. ft..	613	180	...	...	613	180	...	...	...	...
Other fuels.....	xxx	211	xxx	86	xxx	96	xxx	29	xxx	(D)
Electric energy purchased.....million kwh..	652	5,507	600	5,108	28	172	24	227	9	84
Electric energy generated and used.....do....	49	xxx	49	xxx	...	xxx	...	xxx	...	xxx
Item	ROCK SALT INDUSTRY									
	United States, total		Middle Atlantic and North Central		West South Central and West					
					Total		Louisiana			
	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)		
Minerals prepared, total.....1,000 short tons ¹ ..	4,768	xxx	3,500	xxx	1,268	xxx	992	xxx		
Crude ore mined and prepared at the same establishment.....do ¹ ...	4,768	xxx	3,500	xxx	1,268	xxx	992	xxx		
Minerals received from other establishments for preparation ².....do ¹...	...	...	...	...	...	...	...	...
Supplies used.....	xxx	3,351	xxx	1,978	xxx	3,373	xxx	2,326		
Fuels used, total.....million kwh equivalent..	520	335	177	151	343	184	333	147		
Bituminous coal.....1,000 short tons..	1	2	1	2	...	...	...	...
Distillate fuel oil.....1,000 barrels..	21	94	16	72	5	22	2	8		
Residual fuel oil.....do....					...	...	...	...
Natural gas.....million cu. ft..	1,522	206	455	69	1,067	137	1,067	137		
Other fuels.....	xxx	33	xxx	8	xxx	25	xxx	2		
Electric energy purchased.....million kwh..	29	367	19	253	10	114	9	99		
Electric energy generated and used.....do....	6	xxx	...	xxx	6	xxx	6	xxx		
Item	SULFUR INDUSTRY				CHEMICAL AND FERTILIZER MINERAL MINING, N.E.C., INDUSTRY					
	United States				United States					
	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)		
Minerals prepared, total.....1,000 short tons ¹..	...	xxx	...	xxx	(D)	xxx	...	xxx		
Crude ore mined and prepared at the same establishment.....do ¹...	...	xxx	...	xxx	1,560	xxx	...	xxx		
Minerals received from other establishments for preparation ².....do ¹...	...	...	...	...	(D)	...	...	3,775		
Supplies used.....	xxx	14,055	xxx	14,055	xxx	14,055	xxx	14,055		
Fuels used, total.....million kwh equivalent..	12,849	5,629	12,849	5,629	162	162	162	193		
Bituminous coal.....1,000 short tons..	...	...	...	...	1	...	1	9		
Distillate fuel oil.....1,000 barrels..	44	172	44	172	...	...	...	61		
Residual fuel oil.....do....	...	...	...	...	12	...	12	61		
Natural gas.....million cu. ft..	41,383	5,346	41,383	5,346	404	...	404	87		
Other fuels.....	xxx	111	xxx	111	xxx	...	xxx	36		
Electric energy purchased.....million kwh..	5	44	5	44	61	...	61	394		
Electric energy generated and used.....do....	73	xxx	73	xxx	...	...	...	xxx		

D Withheld to avoid approximately disclosing the figures of individual companies.

¹Figures for the Phosphate Rock Industry and for the Chemical and Fertilizer Mineral Mining, N.E.C., Industry are shown in thousands of long tons.²No minerals were reported received for treatment on a custom basis.³Includes the cost of contract work.

Table 13.—WATER USE IN THE CHEMICAL AND FERTILIZER MINERAL MINING INDUSTRIES BY

(For explanation of column captions,

	Industry, geographic division, State, and type of operation	Number of production and development workers	Value added in mining (\$1,000)	Water intake (except mine water)		
				Million gallons	Million gallons per production worker ¹	Gallons per dollar value added
	BARITE INDUSTRY					
1	United States, total.....	1,036	14,051	² 6,047	² 5.84	² 430
	GEOGRAPHIC DIVISION					
2	West North Central (Missouri).....	354	2,381	² 4,777	² 13.49	² 2,006
3	South.....	625	10,967	1,170	1.87	107
4	West.....	57	703	100	1.75	142
	TYPE OF OPERATION					
5	Open-pit mines with preparation plants.....	643	10,308	² 5,929	² 9.22	² 575
6	All other operations.....	393	3,743	...	0.30	32
	FLUORSPAR INDUSTRY					
7	United States, total.....	997	9,914	825	0.83	83
	GEOGRAPHIC DIVISION AND STATE					
8	East North Central (Illinois).....	545	5,426	472	0.87	87
9	East South Central (Kentucky).....	184	974	62	0.34	64
10	West.....	268	3,514	291	1.09	83
11	Colorado.....	186	2,336	213	1.15	91
	TYPE OF OPERATION					
12	Producing establishments, total.....	981	9,905	824	0.84	83
13	Mines without preparation plants.....	116	1,229	...	...	...
14	Mines with preparation plants, total.....	825	8,180	761	0.92	93
15	Open-pit mines and combination open-pit and underground mines.....	128	2,028	162	1.27	80
16	Underground mines.....	697	6,152	599	0.86	97
17	Preparation plants only.....	40	496	63	1.58	127
18	Nonproducing establishments.....	16	9	1	0.06	111
	POTASH, SODA, AND BORATE MINERALS INDUSTRY					
19	United States, total.....	4,738	82,213	⁴ 10,561	⁴ 2.23	⁴ 128
20	West South Central and Mountain.....	3,189	57,912	⁴ 5,058	⁴ 1.59	⁴ 87
21	New Mexico.....	2,787	51,778	⁴ 4,498	⁴ 1.61	⁴ 87
22	Pacific (California).....	1,549	24,301	5,503	3.55	227
	PHOSPHATE ROCK INDUSTRY					
23	United States, total.....	4,579	62,089	39,720	8.67	640
	GEOGRAPHIC DIVISION AND STATE					
24	South Atlantic (Florida).....	3,283	46,015	34,415	10.48	748
25	East South Central (Tennessee).....	685	9,605	5,009	7.31	521
26	Mountain.....	611	6,469	296	0.48	46
	TYPE OF OPERATION					
27	Producing establishments, total.....	4,574	62,062	39,720	8.67	640
	Open-pit mines:					
28	Without preparation plants.....	139	1,627	...	...	...
29	With preparation plants.....	2,991	38,752	36,578	2.23	944
30	Underground and combination open-pit and underground mines.....	476	4,157	19	3.04	5
31	Preparation plants only.....	968	17,526	3,123	3.23	178
32	Nonproducing establishments.....	5	27	...	...	...
	ROCK SALT INDUSTRY					
33	United States, total.....	1,659	30,013	² 2,968	² 1.79	² 99
34	Middle Atlantic and North Central.....	843	18,555	782	0.93	42
35	West South Central and West.....	816	11,458	² 2,186	² 2.68	191
36	Louisiana.....	704	10,113	2,112	3.00	209

See footnotes at end of table.

GEOGRAPHIC DIVISIONS AND STATES, AND BY TYPE OF OPERATION: 1954

see INTRODUCTION)

Water discharged (except mine water) (Million gallons)	Mine water (million gallons)		Gross water use, including recirculation (Million gallons)	Percent of total water intake (except mine water) by principal source						
	Used	Drained and discharged		Public water systems	Company surface water systems	Company ground water systems	Combined public water and company ground water systems	Combined company surface and ground water systems	Not specified	
5,720	(²)	192	9,348	(³)	64	9	...	11	16	1
4,528	(²)	(D)	6,285	...	64	9	...	8	19	2
1,132	...	(D)	2,940	(³)	71	1	...	22	6	3
60	...	...	123	...	...	70	...	...	30	4
5,642	(²)	192	9,202	...	65	8	...	11	16	5
78	...	...	146	6	9	59	...	...	26	6
785	266	5,001	1,244	22	48	18	(³)	...	12	7
437	178	4,480	727	28	72	...	...	...	...	8
62	7	97	69	16	3	81	...	...	...	9
286	81	424	448	14	18	33	(³)	...	35	10
208	68	409	356	2	24	26	...	...	48	11
784	266	(D)	1,243	22	48	18	(³)	...	12	12
...	10	(D)	10	...	...	...	...	...	...	13
721	256	4,608	1,169	23	52	12	...	...	13	14
157	68	102	305	3	...	35	...	...	62	15
564	188	4,506	864	28	66	6	...	...	...	16
63	...	...	64	16	3	79	2	...	...	17
1	...	(D)	1	...	...	100	...	...	...	18
6,455	(⁴)	7	26,332	...	23	74	...	...	3	19
1,230	(⁴)	7	20,829	...	56	37	...	...	7	20
775	(⁴)	(D)	17,744	...	57	35	...	...	8	21
5,225	...	...	5,503	...	...	100	...	...	...	22
540,891	22,898	...	138,399	...	21	69	...	10	(³)	23
535,730	22,303	...	131,223	...	10	78	...	12	(³)	24
4,865	592	...	6,877	...	99	...	...	1	(³)	25
296	3	...	296	...	...	100	...	...	...	26
540,891	22,898	...	138,399	...	21	69	...	10	(³)	27
538,266	22,869	...	134,878	...	21	68	...	11	(³)	28
19	29	...	48	...	...	100	...	...	...	30
2,606	...	...	3,473	...	24	76	...	...	(³)	31
...	...	...	...	...	...	...	...	...	...	32
2,689	(²)	88	3,086	(³)	2	75	...	23	...	33
656	...	(D)	782	1	6	93	...	...	...	34
2,033	(²)	(D)	2,304	...	...	69	...	31	...	35
2,032	...	...	2,285	...	...	69	...	31	...	36

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 13.—WATER USE IN THE CHEMICAL AND FERTILIZER MINERAL MINING INDUSTRIES BY GEOGRAPHIC DIVISIONS AND STATES, AND BY TYPE OF OPERATION: 1954—Continued

Industry, geographic division, State, and type of operation	Number of production and development workers	Value added in mining (\$1,000)	Water intake (except mine water)			Water discharged (except mine water) (Million gallons)		
			Million gallons	Million gallons per production worker ¹	Gallons per dollar value added			
SULFUR INDUSTRY								
United States.....	3,077	124,166	15,969	5.19	129	15,414		
CHEMICAL AND FERTILIZER MINERAL MINING, N.E.C., INDUSTRY								
United States.....	1,209	18,074	² 14,167	² 11.72	² 784	12,024		
	Mine water		Gross water use, including recircu- lation (Million gallons)	Percent of total water intake by principal source				
	Used	Drained and dis- charged		Public water systems	Company surface water systems	Company ground water systems	Combined company surface and ground water systems	Not specified
	SULFUR INDUSTRY—Continued							
United States.....	...	...	16,735	22	20	30	27	1
CHEMICAL AND FERTILIZER MINERAL MINING, N.E.C., INDUSTRY—Continued								
United States.....	(²)	533	28,332	(³)	(³)	39	(³)	61

D Withheld to avoid approximately disclosing figures of individual companies.

¹For computations of water intake per production worker, including mine water used, see tables 3 and 4.²Mine water used is included with figures for water intake (except mine water), amounting to less than 5 percent of the total shown.³Less than 0.5 percent.⁴Mine water used is included with figure for water intake (except mine water), amounting to less than one-fourth of the total shown.⁵Exceeds water intake, in part, due to accumulation of rainwater in some storage facilities.

Nonmetallic Minerals (Except Fuels) Contract Services

This report shows 1954 Census of Mineral Industries statistics for establishments classified in Industry 1481, Nonmetallic Minerals (except Fuels) Contract Services. Industry 1481 comprises establishments primarily engaged in performing contract services for nonmetallic minerals (except fuels) mining industries, such as mine exploration and development including the stripping of overburden, shaft sinking, boring of test holes, and the pumping or draining of mines.

Establishments primarily engaged in performing hauling services for mineral industries are not included in the Mining Division for 1954, according to the Standard Industrial Classification, and were not covered in the 1954 minerals census. However, in 1939, contractors hauling overburden or waste to a waste dump and hauling minerals to a primary preparation plant were included.

Establishments classified in the Nonmetallic Minerals (except Fuels) contract services industry filed one report for all mining contract services performed in the United States. Establishments were classified on the basis of the principal industry for which the service was performed, the principal State in which the service was performed, and the principal kind of work performed. As a rule there is a relatively high degree of concentration of contractors' activities in particular industries, States, and kinds of work. This is shown in Tables 3 and 4.

The total receipts in the nonmetallic minerals (except fuels) contract services industry in 1954 amounted to \$6.6 million,

of which \$6.0 million was receipts for services primary to this industry, \$0.3 million was for hauling and other contract services not classified in this industry, and \$0.3 million was for products purchased and resold without further processing.

The contract services covered in this report represent only about 14 percent of all contract services performed for the industries in Major Group 14, Nonmetallic Minerals (except Fuels) Mining. Contractors classified in Industries 1081, Metal Mining Contract Services, and 1339, Oil and Gas Field Contract Services, Not Elsewhere Classified, reported receipts of \$1.1 million for services for these industries. Operators of mining establishments in Major Group 14 reported receipts of \$9.9 million for contract services, and operators of manufacturing and wholesale trade establishments which included similar mining operations reported receipts of \$2.1 million for such work. It is probable, also, that most of these \$12.0 million contract services receipts represented work for establishments classified in Major Group 14. In total, therefore, the Census reports account for contract receipts amounting to about 43 percent of the total payments for contract work by establishments classified in Major Group 14. Much of the remaining contract work was probably hauling services which are not within the scope of the 1954 economic censuses (manufactures, mineral industries, and business). The following table summarizes for groups of industries the available data on payments and receipts for contract services of this type in 1954:

PAYMENTS AND RECEIPTS FOR NONMETALLIC MINERALS (EXCEPT FUELS) CONTRACT SERVICES: 1954

Industry served	Cost of contract work as reported by mine operators (\$1,000)	Receipts for contract services reported in the economic censuses (\$1,000)				
		Total	By nonmetallic minerals (except fuels) contract services industry	By metal mining contract services and oil and gas field contract services industries	By mine operators classified in nonmetallic minerals (except fuels) mining industries	By mine operators classified in manufacturing and wholesale trade industries
Nonmetallic minerals (except fuels) mining, total.....	45,157	19,314	6,265	1,109	9,889	2,051
Stone.....	11,258	4,500	2,124	23	2,131	222
Sand and gravel.....	14,692	9,394	508	24	7,034	1,828
Clay, ceramic, and refractory minerals.....	6,655	1,909	1,589	24	296	...
Chemical and fertilizer mineral mining.....	4,487	772	545	220	7	...
Natural abrasives and miscellaneous nonmetallic minerals.....	8,065	2,739	1,499	818	421	1

A major portion of the contract services for these industries is performed by small establishments, frequently without employees, and it is probable that the coverage of such operations in this report is quite incomplete. The mailing lists available for conducting the 1954 minerals census did not adequately identify such small operations as performing this type of service. Hence, such establishments which had em-

ployees may frequently have been classified incorrectly in the Census of Business, or, if they had no employees, may have been omitted entirely from the census. As indicated in Table 6, even for the reports received, 71 percent of the establishments, and 31 percent of the receipts for services, represented establishments with less than 10 employees.

Table 1.—COMPARATIVE STATISTICS FOR THE NONMETALLIC MINERALS (EXCEPT FUELS) CONTRACT SERVICES INDUSTRY IN THE UNITED STATES: 1954 AND 1939

(Contractors were requested to prepare one report for all mining contract services performed in the United States. These reports were classified on the basis of the principal industry for which the service was performed. For explanation of line captions and for statement on the minimum size establishments included for each year, see INTRODUCTION)

Item	All nonmetallic minerals (except fuels) contract services		Stone contract services		Sand and gravel contract services		Clay and feldspar contract services		Barite and fluorspar contract services		Other nonmetallic minerals (except fuels), contract services	
	1954	1939 ¹	1954	1939	1954	1939	1954	1939	1954	1939	1954	1939
Number of operating companies.....	62	65	12	20	6	10	24	12	4	11	16	12
Amount received or due for services ².....\$1,000..	6,571	966	2,124	277	754	81	1,649	276	545	121	1,499	211
Value added in mining services.....do....	4,884	725	1,808	221	420	57	1,181	192	376	85	1,099	170
Number of persons engaged, total.....	706	403	253	133	49	41	164	82	61	60	179	87
Production and development workers....	614	307	243	104	43	29	129	59	55	46	148	75
All other employees.....	25	28					8	8	...	5	13	4
Proprietors and firm members.....	67	68	10	18	6	12	27	15	6	15	18	8
Performing manual labor.....	26	27	4	10	3	3	13	4	1	6	5	4
Man-hours worked by production and development workers.....1,000..	1,258	632	502	232	77	51	268	128	100	60	311	161
Principal expenses designated below, total.....\$1,000..	3,993	³ 609	1,144	³ 181	565	³ 51	923	³ 162	357	³ 79	1,004	³ 136
Wages of production and development workers.....do....	2,214	320	828	116	231	27	425	51	188	38	552	88
Salaries of all other employees.....do....	113	48					45	27	...	5	58	7
Supplies.....do....	955	124	231	25	301	14	42	42	148	22	309	21
Products purchased for resale.....do....	133	(NA)	...	(NA)			184	(NA)	...	(NA)	...	(NA)
Fuel.....do....	354	113	85	31	33	10	141	38	21	14	85	20
Purchased electric energy.....do....	11	4	...	...	...	...			4			
Subcontract work.....do....	213	(NA)	...	(NA)	...	(NA)	128	(NA)	(4)	(NA)	(4)	(NA)
Purchased machinery installed.....do....	402	(NA)	104	(NA)	(D)	(NA)	142	(NA)	(D)	(NA)	124	(NA)
Capital expenditures, total.....do....	381	53	104	1	(D)	3	127	31	(D)	15	118	3
New construction and major alterations of fixed structures.....do....	19	(NA)	...	(NA)	...	(NA)	1	(NA)	...	(NA)	18	(NA)
New machinery and equipment.....do....	306	(NA)	104	(NA)	(D)	(NA)	90	(NA)	(D)	(NA)	100	(NA)
Used plant and equipment.....do....	56	(NA)					36	(NA)	...	(NA)		
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	38,894	18,119	5,356	5,305	2,772	1,138	17,523	6,294	2,549	2,620	10,694	2,762
Per production worker.....	63	59	22	51	69	39	136	107	46	66	72	37
Prime movers.....	37,498	(NA)	5,356	(NA)	2,772	(NA)	17,157	(NA)	2,474	(NA)	9,739	(NA)
Electric motors driven by purchased energy ⁵	1,396	(NA)	...	(NA)	...	(NA)	366	(NA)	75	(NA)	955	(NA)
Energy used.....million kwh equivalent..	96	(NA)	22	(NA)	8	(NA)	38	(NA)	7	(NA)	21	(NA)
Fuel oils (distillate and residual) ⁶.....1,000 barrels..	25	(NA)	(D)	(NA)	(D)	(NA)	12	(NA)	3	(NA)	7	(NA)
Other fuels.....\$1,000..	213	(NA)	(D)	(NA)	(D)	(NA)	69	(NA)	9	(NA)	35	(NA)
Electric energy purchased ⁷.....million kwh..	1	(NA)	...	(NA)	...	(NA)	(7)	(NA)	...	(NA)	(7)	(NA)
Water intake.....million gallons..	25	(NA)	...	(NA)	...	(NA)	...	(NA)	...	(NA)	25	(NA)

D Withheld to avoid approximately disclosing figures for individual companies.

NA Not available.

¹The 1939 Census report contains the results of the first census of the nonmetallic minerals (except fuels) contract services industry in the United States.

²Includes receipts for services not classified in these industries such as stripping bituminous coal for others, water well drilling, and hauling; and receipts for products purchased and resold without further processing. See table 4.

³Excludes the cost of "Subcontract work" and "Products purchased for resale".

⁴Cost of subcontract work is included with cost of supplies.

⁵No generation of electric energy was reported.

⁶Residual oils amounted to less than 10 percent of the quantity and value totals shown for the United States.

⁷Less than 0.5 million kilowatt-hours.

Table 2.—COMPARATIVE STATISTICS, BY STATE: 1954 AND 1939
(These statistics are not available for this industry)

Table 3.—DETAILED STATISTICS FOR THE NONMETALLIC MINERALS (EXCEPT FUELS) CONTRACT SERVICES INDUSTRY, BY INDUSTRY SERVED AND BY GEOGRAPHIC DIVISIONS AND STATES: 1954

(Contractors were requested to prepare one report for all mining contract services performed in the United States. These reports were classified on the basis of the principal industry for which the service was performed and the principal State in which the service was performed. For explanation of line captions, see INTRODUCTION)

Item	United States					
	Total	By industries served				
		Stone	Sand and gravel	Clay and feldspar	Barite and fluorspar	Other nonmetallic minerals, except fuels
Number of operating companies.....	62	12	6	24	4	16
Amount received or due for services, total ¹.....\$1,000..	6,571	2,124	754	1,649	545	1,499
Receipts for services in the specified State by contractors classified in that State as percent of line 2 ².....percent..	xxx	xxx	xxx	xxx	xxx	xxx
Receipts for services in the specified State by contractors classified in all States as percent of line 2 ².....do....	xxx	xxx	xxx	xxx	xxx	xxx
Value added in mining services.....\$1,000..	4,884	1,808	420	1,181	376	1,099
Number of persons engaged, total.....	706	253	49	164	61	179
Number of employees, total.....	639	243	43	137	55	161
Number employed in the specified State by contractors classified in that State as percent of line 7 ³.....percent..	xxx	xxx	xxx	xxx	xxx	xxx
Number employed in the specified State by contractors classified in all States as percent of line 7 ³.....do....	xxx	xxx	xxx	xxx	xxx	xxx
Production and development workers.....	614	243	43	129	55	148
All other employees.....	25			8	...	13
Proprietors and firm members.....	67	10	6	27	6	18
Performing manual labor.....	26	4	3	13	1	5
Man-hours worked by production and development workers.....1,000..	1,258	502	77	268	100	311
Principal expenses designated below, total...\$1,000..	3,993	1,144	565	923	357	1,004
Wages of production and development workers.....do....	2,214	828	231	425	188	552
Salaries of all other employees.....do....	113			45	...	58
Supplies.....do....	955	231	301	184	4148	4309
Products purchased for resale.....do....	133	...		...	...	...
Fuel.....do....	354	85	33	141	21	85
Purchased electric energy.....do....	11	...	...	128	(4)	(4)
Subcontract work.....do....	213	...	...	...	...	...
Purchased machinery installed.....do....	402	104	(D)	142	(D)	124
Capital expenditures, total.....do....	381	104	(D)	127	(D)	118
New construction and major alterations of fixed structures.....do....	19	...	(D)	1	...	18
New machinery and equipment.....do....	306	104	(D)	90	(D)	100
Used plant and equipment.....do....	56	...	...	36	...	...
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	38,894	5,356	2,772	17,523	2,549	10,694
Per production worker.....	63	22	69	136	46	72
Prime movers.....	37,498	5,356	2,772	17,157	2,474	9,739
Electric motors driven by purchased energy ⁵	1,396	...	...	366	75	955
Energy used.....million kwh equivalent..	96	22	8	38	7	21
Fuel oils (distillate and residual) ⁶.....1,000 barrels..	25	(D)	(D)	12	3	7
Other fuels.....\$1,000..	213	(D)	(D)	69	9	35
Electric energy purchased.....million kwh..	1	...	...	1	...	(7)
Water intake.....million gallons..	25	...	...	...	...	25

See footnotes at end of table.

Table 3.—DETAILED STATISTICS FOR THE NONMETALLIC MINERALS (EXCEPT FUELS) CONTRACT SERVICES INDUSTRY, BY

(Contractors were requested to prepare one report for all mining contract services performed in the United States. These reports were classified on of line captions,

Item	Northeast (Connecticut, New Jersey, and Pennsylvania)	East North Central						West North Central (Iowa, Missouri, South Dakota, Nebraska, and Kansas)
		Total	By industries served		By State			
			Sand and gravel	Stone, clay, and fluorspar	Ohio	Indiana, Illinois, Michigan, and Wisconsin		
1	Number of operating companies.....	6	10	4	6	3	7	6
2	Amount received or due for services, total ¹.....\$1,000..	424	986	596	390	554	432	186
3	Receipts for services in the specified State by contractors classified in that State as percent of line 2.....percent..	100	99	xxx	xxx	97	100	100
4	Receipts for services in the specified State by contractors classified in all States as percent of line 2.....do....	162	108	xxx	xxx	102	117	117
5	Value added in mining services.....\$1,000..	353	554	279	275	293	261	146
6	Number of persons engaged, total.....	39	83	29	54	35	48	26
7	Number of employees, total.....	33	73	26	47	34	39	16
8	Number employed in the specified State by contractors classified in that State as percent of line 7 ³.....percent..	100	100	xxx	xxx	100	100	100
9	Number employed in the specified State by contractors classified in all States as percent of line 7 ³.....do....	158	112	xxx	xxx	100	123	106
10	Production and development workers.....	33	69	26	47	30	39	16
11	All other employees.....	...	4			4	...	
12	Proprietors and firm members.....	6	10			7	1		9
13	Performing manual labor.....	3	1	...	1	...	1	9
14	Man-hours worked by production and development workers.....1,000..	77	131	44	87	60	71	30
15	Principal expenses designated below, total..\$1,000..	229	777	482	295	445	332	93
16	Wages of production and development workers.....do....	158	329	165	180	168	161	53
17	Salaries of all other employees.....do....	...	16			16	...	
18	Supplies.....do....	51	4391	296	495	4241	150	23
19	Products purchased for resale.....do....	...						
20	Fuel.....do....	20	41	21	20	20	21	17
21	Purchased electric energy.....do....	...	...	...	...	...	...	...
22	Subcontract work.....do....	...	(4)	...	(4)	(4)	...	(4)
23	Purchased machinery installed.....do....	18	16	(D)	(D)	8	8	56
24	Capital expenditures, total.....do....	18	16	(D)	(D)	8	8	56
25	New construction and major alterations of fixed structures.....do....	...	...	(D)	(D)	...	...	...
26	New machinery and equipment.....do....	18	...			8	...	46
27	Used plant and equipment.....do....	...	16	...	(D)	8	...	10
28	Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	2,800	4,539	1,702	2,837	1,687	2,852	1,638
29	Per production worker.....	85	66	74	62	56	73	109
30	Prime movers.....	2,800	4,489	1,702	2,787	1,687	2,802	1,638
31	Electric motors driven by purchased energy ⁵.....	...	50	...	50	...	50	...
32	Energy used.....million kwh equivalent..	5	9	5	4	4	5	5
33	Fuel oils (distillate and residual) ⁶.....1,000 barrels..	(D)	2	(D)	(D)	(D)	(D)	1
34	Other fuels.....\$1,000..	(D)	22	(D)	(D)	(D)	(D)	12
35	Electric energy purchased.....million kwh..	...	...	...	...	...	...	...
36	Water intake.....million gallons..	...	...	...	...	...	...	...

D Withheld to avoid approximately disclosing figures for individual companies.

¹See table 1, footnote 2.

²Each contractor was asked to report the amount received or due for work performed in each State. Thus, it was possible to determine the total amount received by these contractors for work in each State, even though other State statistics were based on the classification of the establishment according to the State for which the total amount received was greatest. The ratio in this line has been computed to indicate the extent to which contract work in the specified State or States was done by contractors classified in other States.

³Computation is based on the total number of employees in the State or States in the pay period ended nearest March 15, 1954.

⁴See table 1, footnote 4.

⁵See table 1, footnote 5.

⁶See table 1, footnote 6.

⁷See table 1, footnote 7.

INDUSTRY SERVED AND BY GEOGRAPHIC DIVISIONS AND STATES: 1954.—Continued

the basis of the principal industry for which the service was performed and the principal State in which the service was performed. For explanation see INTRODUCTION)

South Atlantic			East South Central (Kentucky, Tennessee, Alabama, and Mississippi)	West South Central (Texas)			West			
Total	Florida	North Carolina and Georgia		Total	By industries served		Total	Wyoming	Idaho, Colorado, New Mexico, Arizona, Utah, Nevada, and California	
					Stone	Clay				
8	5	3	6	7	4	3	19	7	12	1
671	566	105	2,074	429	167	262	1,801	535	1,266	2
100	100	62	47	100	xxx	xxx	99	84	100	3
104	107	90	47	106	xxx	xxx	137	96	155	4
550	459	91	1,767	354	137	217	1,160	308	852	5
106	86	20	230	74	47	27	148	40	108	6
97	79	18	224	67	43	24	129	31	98	7
100	100	67	45	100	xxx	xxx	99	95	100	8
{ 84 13 9 2 }	107	67	45	100	xxx	xxx	171	126	182	9
	79	18	224	67	43	24	123	31	92	10
			...		...		6	...	6	11
	7	2	6	7	4	3	19	9	10	12
	2	...	2	2	1	1	7	4	3	13
158	135	23	461	125	74	51	276	70	206	14
416	337	79	1,047	228	119	109	1,203	329	874	15
{ 251 54 85 ... }	240	65	737	153	89	64	541	118	423	16
			...		...		35	...	35	17
	80	5	4222	444	19	425	282	4146	4339	18
	...	...	...	...	...	...	...	...	...	19
	26	17	9	88	31	11	20	142	65	77	20
...	...	...	(4)	(4)	...	(4)	203	(4)	(4)	22
22	22	...	148	15	(D)	(D)	127	49	78	23
12	12	...	151	15	(D)	(D)	113	33	80	24
{ ... 12 }	...	...	...	...	...	...	(D)	...	...	25
	12	{	151	{ ... 15 }	...	(D) (D)	(D) (D)	73 (D)	{ ... 33 }	80 ...	26 27
4,562 54 3,444 1,118 }	3,474 48 3,474	1,088 91 1,088	6,750 30 6,750 ...	2,510 38 2,510 ...	400 9 400 ...	2,110 92 2,110 ...	16,095 131 15,867 228 }	8,298 268 8,298	7,797 84 7,797	28 29 30 31
5	4	1	25	8	3	5	39	19	20	32
1	1	...	5	(D)	...	(D)	14	6	8	33
12	9	3	66	(D)	...	(D)	60	33	27	34
1	(7)	(7)	...	...	...	...	(7)	(7)	(7)	35
...	...	...	...	...	...	...	25	...	25	36

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 4.—DETAILED STATISTICS FOR THE NONMETALLIC MINERALS (EXCEPT FUELS) CONTRACT SERVICES INDUSTRY IN THE UNITED STATES, BY KIND OF WORK PERFORMED: 1954

(Contractors were requested to prepare one report for all mining contract services performed in the United States. These reports were classified on the basis of the principal kind of work performed. For explanation of line captions, see INTRODUCTION)

Item	Establishments classified by principal kind of work performed					
	All kinds of work	Prospect test and drilling	Other drilling, including blasting	Stripping overburden	Mining minerals for the account of others	Other work
Number of operating companies.....	62	9	8	13	29	3
Amount received or due for services, total.....\$1,000..	6,571	2,094	962	941	2,183	391
Drilling:						
Prospect and test drilling.....do....	2,100	2,093	683	4	7	...
Other drilling, including blastings.....do....	687	...	...	...	...	...
Stripping overburden.....do....	925	...	...	814	111	...
Mining minerals for others:						
Strip mining.....do....	1,601	...	...	20	1,581	...
Underground mining.....do....	217	...	...	...	217	...
Other services primary to the nonmetallic minerals (except fuels) contract services industry ¹.....do....	483	1	...	30	61	391
Hauling minerals and mine equipment beyond mine property.....do....	262	...	...	73	189	...
Other services classified in other industries ².....do....	26	...	...	...	...	...
Products purchased and resold without further processing.....do....	270	...	279	...	17	...
Value added in mining services.....do....	4,884	1,768	545	779	1,472	320
Number of persons engaged, total.....	706	256	48	103	242	57
Production and development workers.....	614	247	44	89	199	54
All other employees.....	25	...	...	...	6	...
Proprietors and firm members.....	67	9	4	14	37	3
Performing manual labor.....	26	4	1	3	18	...
Man-hours worked by production and development workers, total.....1,000..	1,258	507	94	167	402	88
Prospect and test drilling.....do....	508	507	...	1	...	...
Stripping overburden.....do....	127	...	...	116	11	...
Mining minerals for others.....do....	365	...	...	24	341	...
Other work.....do....	258	...	94	27	49	88
Principal expenses designated below, total.....\$1,000..	3,993	1,183	690	419	1,471	230
Wages of production and development workers.....do....	2,214	854	273	272	726	169
Salaries of all other employees.....do....	113	...	...	...	33	...
Supplies.....do....	955	250	380	378	335	52
Products purchased for resale.....do....	133	...	...	...	...	...
Fuel.....do....	354	79	37	69	171	9
Purchased electric energy.....do....	11	...	...	...	...	...
Subcontract work.....do....	213	...	(3)	(3)	206	...
Purchased machinery installed.....do....	402	(D)	57	113	155	(D)
Capital expenditures, total.....do....	381	(D)	57	98	156	(D)
New construction and major alterations of fixed structures.....do....	19	...	...	1	18	...
New machinery and equipment.....do....	306	(D)	57	81	108	(D)
Used plant and equipment.....do....	56	(D)	...	16	30	...
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	38,894	5,587	3,327	11,101	16,874	2,005
Per production worker.....	63	23	83	135	85	39
Prime movers.....	37,498	5,587	3,327	10,735	16,599	1,250
Electric motors driven by purchased energy ⁴	1,396	...	...	366	275	755
Energy used.....million kwh equivalent..	96	20	9	20	45	2
Fuel oils (distillate and residual) ⁵.....1,000 barrels..	25	...	2	8	14	1
Other fuels.....\$1,000..	213	79	22	25	84	3
Electric energy purchased.....million kwh..	1	...	...	1	(6)	(6)
Water intake.....million gallons..	25	...	...	...	25	...

D Withheld to avoid approximately disclosing figures for individual companies.

¹Represents sinking mine shafts and driving mine tunnels and miscellaneous work.²Represents stripping bituminous coal for others and water well drilling.³See table 1, footnote 4.⁴See table 1, footnote 5.⁵See table 1, footnote 6.⁶See table 1, footnote 7.

Table 5.—PRODUCTS AND RECEIPTS FOR SERVICES: 1954 AND 1939

(These statistics are included in table 4 for 1954. They are not available for this industry for 1939)

Table 6.--GENERAL STATISTICS FOR NONMETALLIC MINERALS (EXCEPT FUELS) CONTRACT SERVICES ESTABLISHMENTS CLASSIFIED BY EMPLOYMENT SIZE AND BY GEOGRAPHIC DIVISIONS: 1954

(For explanation of column captions, see INTRODUCTION)

Geographic division and number of employees in establishment	Number of operating companies ¹	Amount received or due for services (\$1,000)	Value added in mining services (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
United States, total.....	62	6,571	4,884	614	25	1,258	2,214	113	325
0.....	4	19	18	2	2	...	2	...	1
1-4.....	24	815	472	264	(2)	127	201	(2)	50
5-9.....	16	1,228	941	2105	(2)	220	2369	(2)	98
10-19.....	14	1,817	1,282	176	15	348	638	71	44
20-49.....	3	2,692	2,171	273	6	563	1,016	32	132
100-249.....	1								
Northeast.....	6	424	353	33	...	77	158	...	18
1-4.....	3	76	67	7	...	18	31	...	...
5-9.....	2	348	286	26	...	59	127	...	18
10-19.....	1								
East North Central.....	10	986	554	69	4	131	329	16	(D)
0.....	1	109	63	8	...	12	24	...	(D)
1-4.....	4								
5-9.....	2	877	491	61	4	119	305	16	(D)
10-19.....	2								
20-49.....	1	186	146	216	(2)	30	253	(2)	46
West North Central.....	6								
0.....	1	186	146	216	(2)	30	253	(2)	46
1-4.....	4								
5-9.....	1	671	550	84	13	158	251	54	11
South Atlantic.....	8								
1-4.....	4	85	51	13	...	21	27	...	...
5-9.....	1	586	499	71	13	137	224	54	11
10-19.....	2								
20-49.....	1	2,074	1,767	224	...	461	737	...	(D)
East South Central.....	6								
0.....	1	2,074	1,767	224	...	461	737	...	(D)
1-4.....	1								
5-9.....	1	429	354	267	(2)	125	2153	(2)	(D)
West South Central.....	7								
5-9.....	4	219	181	229	(2)	55	262	(2)	(D)
10-19.....	3	210	173	38	...	70	91	...	...
West.....	19	1,801	1,160	123	6	276	541	35	(D)
0.....	1	439	218	22	...	50	80	...	(D)
1-4.....	8								
5-9.....	5	236	182	26	...	64	110	...	(D)
10-19.....	4	1,126	760	75	6	162	351	35	(D)
20-49.....	1								

D Withheld to avoid approximately disclosing figures for individual companies.

¹The number of companies is the same as the number of establishments since each company was asked to make one report for all mining contract services performed.²Number of salaried employees and salaries paid them are included with figures for production and development workers.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 7.--MONTHLY EMPLOYMENT IN THE NONMETALLIC MINERALS (EXCEPT FUELS) CONTRACT SERVICES INDUSTRY, BY GEOGRAPHIC DIVISIONS, STATES, AND KIND OF WORK PERFORMED: 1954

Geographic division, State, and kind of work performed	Average employment for the year ¹	Number of employees by month											
		January	February	March	April	May	June	July	August	September	October	November	December
United States, total.....	639	583	593	542	567	655	688	710	741	736	668	594	585
GEOGRAPHIC DIVISION AND STATE													
Northeast.....	33	31	31	31	31	31	31	32	37	36	36	36	32
East North Central.....	73	84	83	66	53	82	49	63	71	72	79	86	91
Ohio.....	34	32	33	31	33	32	31	35	36	34	36	37	37
Indiana, Illinois, Michigan, and Wisconsin....	39	52	50	35	20	50	18	28	35	38	43	49	54
West North Central.....	16	9	9	11	16	18	22	23	24	20	20	19	13
South Atlantic.....	97	103	112	101	92	93	97	94	93	96	99	81	103
Florida.....	79	85	94	83	74	75	79	76	75	78	81	63	85
North Carolina and Georgia..	18	18	18	18	18	18	18	18	18	18	18	18	18
East South Central.....	224	194	196	174	201	201	209	249	276	283	271	224	200
West South Central.....	67	63	62	63	65	69	71	71	69	68	65	66	70
West.....	129	99	100	96	109	161	209	178	169	161	98	82	76
Wyoming.....	31	19	20	19	28	38	47	48	40	38	33	27	23
Idaho, Colorado, New Mexico, Arizona, Utah, Nevada, and California.....	98	80	80	77	81	123	162	130	129	123	65	55	53
KIND OF WORK PERFORMED													
Prospect and test drilling.....	247	224	223	197	222	230	237	273	304	305	297	232	218
Other drilling, including blasting.....	44	38	39	37	39	38	40	45	52	49	50	52	48
Stripping overburden.....	89	72	78	82	87	90	105	104	95	101	89	87	74
Mining minerals for the account of others.....	205	182	184	166	168	250	259	241	241	231	180	179	180
Other work.....	54	67	69	60	51	47	47	47	49	50	52	44	65

¹Represents the sum of the average employment figures for the year as shown on the separate establishment reports. (These are the averages shown in other tables of this report.) Because of rounding, the sum of such average figures may differ slightly from the average of the January through December totals shown above.

Table 8.—GENERAL STATISTICS FOR ESTABLISHMENTS CLASSIFIED BY OUTPUT PER MAN-HOUR: 1954

(Such statistics were not compiled for this industry)

Table 9.—GENERAL STATISTICS FOR ESTABLISHMENTS CLASSIFIED BY RATIO OF WAGES AND SALARIES TO VALUE ADDED IN MINING: 1954

(Such statistics were not compiled for this industry)

Table 10.—HORSEPOWER OF POWER EQUIPMENT USED IN THE NONMETALLIC MINERALS (EXCEPT FUELS) CONTRACT SERVICES INDUSTRY, BY GEOGRAPHIC DIVISIONS AND BY KIND OF WORK PERFORMED: 1954

(For explanation of column captions, see INTRODUCTION)

Geographic division and kind of work performed	Aggregate horsepower per production worker	Aggregate horsepower (prime movers and electric motors driven by purchased energy)				Prime movers (horsepower) ¹				Electric motors (horsepower) ²		
		Total	Loading equipment	Transportation equipment (highway type) ³	All other equipment	Total	Loading equipment	Transportation equipment (highway type) ³	All other equipment	Total	Loading equipment	All other equipment
United States, total.....	63	38,894	11,042	20,070	7,782	37,498	10,524	20,070	6,904	1,396	518	878
GEOGRAPHIC DIVISION												
Northeast.....	85	2,800	100	2,209	491	2,800	100	2,209	491	...	...	...
East North Central.....	66	4,539	1,279	1,626	1,634	4,489	1,229	1,626	1,634	50	50	...
West North Central.....	109	1,638	843	403	392	1,638	843	403	392	...	...	...
South Atlantic.....	54	4,562	1,400	2,205	957	3,444	1,037	2,205	202	1,118	363	755
East South Central.....	30	6,750	2,895	1,135	2,720	6,750	2,895	1,135	2,720	...	...	...
West South Central.....	38	2,510	1,120	1,390	...	2,510	1,120	1,390	...	...	...	...
West.....	131	16,095	3,405	11,102	1,588	15,867	3,300	11,102	1,465	228	105	123
PRINCIPAL KIND OF WORK PERFORMED												
Prospect and test drilling.....	23	5,587	...	2,510	3,077	5,587	...	2,510	3,077	...	...	...
Other drilling, including blasting.....	83	3,327	...	2,022	1,305	3,327	...	2,022	1,305	...	...	...
Stripping overburden.....	135	11,101	6,763	4,335	3	10,735	6,400	4,335	...	366	363	3
Mining minerals for others.....	85	16,874	4,279	10,003	2,592	16,599	4,124	10,003	2,472	275	155	120
Other work.....	39	2,005	...	1,200	805	1,250	...	1,200	50	755	...	755

¹No equipment driving generators was reported.²All electric motors were driven by purchased energy.³All transportation equipment reported was of highway type.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 11.—NUMBER OF POWER LOADING AND EXCAVATING MACHINES IN THE NONMETALLIC MINERALS (EXCEPT FUELS) CONTRACT SERVICES INDUSTRY IN THE UNITED STATES, BY GEOGRAPHIC DIVISIONS: 1954

Type of loading equipment	United States	Northeast	East North Central	West North Central	South Atlantic	East South Central	West South Central	West
Surface loading and excavating equipment, total.....	122	6	13	8	7	20	11	57
By kind of power used								
Electric and Diesel-electric.....	5	...	...	...	1	...	...	4
Diesel.....	79	5	6	4	3	19	6	36
Gasoline and other.....	38	1	7	4	3	1	5	17
Power shovels, total.....	25	4	4	3	1	1	4	8
By kind of power used								
Diesel.....	10	3	3	2	...	...	...	2
Gasoline and other.....	15	1	1	1	1	1	4	6
By dipper or bucket capacity (cubic yards)								
Less than 3.....	25	4	4	3	1	1	4	8
Dragline excavators, total.....	17	1	2	1	3	2	...	8
By kind of power used								
Electric and Diesel-electric.....	2	...	...	...	1	...	...	1
Diesel.....	10	1	...	...	2	2	...	5
Gasoline and other.....	5	...	2	1	...	...	...	2
By dipper or bucket capacity (cubic yards)								
Less than 3.....	16	1	2	1	2	2	...	8
6-12 inclusive.....	1	...	...	...	1	...	...	...
Scraper loaders, total.....	4	...	...	1	...	2	...	1
By kind of power used								
Diesel.....	3	...	...	1	...	2	...	...
Gasoline and other.....	1	...	...	...	...	...	...	1
By rated horsepower								
10-25 inclusive.....	1	...	...	...	...	...	...	1
26-100 inclusive.....	1	...	...	1	...	...	...	...
More than 100.....	2	...	...	...	...	2	...	...
Clamshell and orange peel loaders, total.....	3	...	3	...	...	...	...	...
By kind of power used								
Diesel.....	2	...	2	...	...	...	...	...
Gasoline and other.....	1	...	1	...	...	...	...	...
Cranes and hoists, total.....	2	...	...	...	...	...	...	2
By kind of power used								
Diesel.....	1	...	...	...	...	...	...	1
Gasoline and other.....	1	...	...	...	...	...	...	1
Bulldozers and tractor-drawn scrapers, total.....	46	1	1	1	1	13	...	29
By kind of power used								
Electric and Diesel-electric.....	3	...	...	...	...	...	...	3
Diesel.....	37	1	1	...	1	13	...	21
Gasoline and other.....	6	...	...	1	...	...	...	5
All other types of equipment.....	25	...	3	2	2	2	7	9
By kind of power used								
Diesel.....	16	...	...	1	...	2	6	7
Gasoline and other.....	9	...	3	1	2	...	1	2
Underground loading equipment, total.....	3	...	2	...	...	...	...	1
By kind of power used								
Electric and Diesel-electric.....	2	...	2	...	...	...	...	...
Gasoline and other.....	1	...	...	...	...	...	...	1
Scraper loaders (including slushers) ¹	2	...	2	...	...	...	...	...
Other types of equipment (gasoline and other power).....	1	...	...	...	...	...	...	1

¹Both units were electric or Diesel-electric with less than 10 rated horsepower.

NONMETALLIC MINERALS (EXCEPT FUELS) CONTRACT SERVICES

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Table 12.—SUPPLIES, FUELS, AND ELECTRIC ENERGY USED IN THE NONMETALLIC MINERALS (EXCEPT FUELS) CONTRACT SERVICES INDUSTRY,
BY GEOGRAPHIC DIVISIONS: 1954

(For explanation of line captions, see INTRODUCTION)

Item	Unit of measure for quantity	United States		Northeast		East North Central		West North Central	
		Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
Supplies used.....	.....	xxx	955	xxx	51	xxx	(¹)	xxx	(¹)
Fuels used, total.....	Million kwh equivalent.	95	354	5	20	9	41	5	17
Fuel oil ³	1,000 barrels..	25	141	(D)	20	2	19	1	5
Other fuels.....	.....	xxx	213	xxx		xxx	22	xxx	12
Electric energy purchased.....	Million kwh....	1	11	...	...	...	...	...	...

Item	Unit of measure for quantity	South Atlantic		East South Central		West South Central		West	
		Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)
Supplies used.....	.....	xxx	85	xxx	(¹)	xxx	(¹)	xxx	282
Fuels used, total.....	Million kwh equivalent.	² 5	² 26	25	88	8	31	² 39	² 142
Fuel oil ³	1,000 barrels..	1	7	5	22	(D)	31	14	78
Other fuels.....	.....	xxx	12	xxx	66	xxx		xxx	60
Electric energy purchased.....	Million kwh....	(²)	(²)	...	...	...	...	(²)	(²)

xxx Not applicable.

D Withheld to avoid approximately disclosing figures for individual companies.

¹This figure combined with the cost of products purchased for resale and the cost of subcontract work is shown in table 3.²Figure for electric energy purchased is included with figure for all fuels used.³See table 1, footnote 6.

Table 13.—WATER USE, BY STATE AND KIND OF WORK PERFORMED: 1954

(Such statistics on water intake are included in tables 3 and 4. Other water statistics are not shown for this industry since water use is very small.)

Miscellaneous Nonmetallic Minerals (Except Fuels)

This report shows 1954 Census of Mineral Industries statistics for establishments classified in Industry Group 149, Miscellaneous Nonmetallic Minerals (Except Fuels). The separate industries included in this group are as follows:

- 1492--Gypsum
- 1493--Mica
- 1494--Native Asphalt and Bitumens
- 1495--Pumice and Pumicite
- 1496--Talc, Soapstone, and Pyrophyllite
- 1497--Vermiculite
- 1498--Peat
- 1499--Nonmetallic Minerals, n.e.c.

Industry 1492, Gypsum, represents establishments primarily engaged in mining, quarrying, milling, or otherwise preparing gypsum (including gypsite). Calcining activities are excluded. However, if a gypsum mine is part of an establishment producing gypsum products, the entire establishment is classified in the manufacturing Industry 3272, Gypsum Products. In 1954, nearly three-fourths of all gypsum produced was mined at such establishments. Selected statistics for such mines are included in Tables 1, 2A, 5A, and 5B of this report.

Industry 1493, Mica, represents establishments primarily engaged in mining, milling, or otherwise preparing mica such as muscovite and phlogopite. Establishments engaged in grinding mica which do not include a mine are classified in the manufacturing Industry 3295, Minerals: Ground or Treated. About 45 percent of all ground mica produced in 1954 was prepared at such establishments.

Industry 1494, Native Asphalt and Bitumens, represents establishments primarily engaged in mining, milling, or otherwise preparing native asphalt and bitumens (including gilsonite, wurtzilite, grahamite, and ozokerite). Of these minerals only gilsonite was produced in 1954. Establishments primarily engaged in mining or preparing bituminous limestone and bituminous sandstone are currently classified in Industries 1422, Crushed and Broken Limestone, and 1427, Crushed and Broken Sandstone. However, in previous years such establishments were included in the Native Asphalt and Bitumens industry, and they have been so included in the 1954 census tabulations. It is not possible to show separately statistics for establishments primarily engaged in mining and milling gilsonite in 1954 without approximately disclosing figures for individual companies.

Industry 1495, Pumice and Pumicite, represents establishments primarily engaged in mining, quarrying, milling, or otherwise preparing pumice and pumicite (volcanic ash). For 1939, establishments primarily engaged in mining or preparing pumice and pumicite were included in the "Natural abrasives" industry. The 1939 data for this industry have been retabulated for use in this report to show separate figures for "Pumice and pumicite."

Industry 1496, Talc, Soapstone, and Pyrophyllite, represents establishments primarily engaged in mining, quarrying, milling, or otherwise preparing talc (including steatite), soapstone, or pyrophyllite. Dimension soapstone is included in this industry. Establishments engaged in grinding talc, soapstone, or pyrophyllite which do not include a mine are classified in the manufacturing Industry 3295, Minerals: Ground or Treated. About 26 percent of all ground talc, soapstone, and pyrophyllite produced in 1954 was prepared at such establishments.

Industry 1497, Vermiculite, represents establishments primarily engaged in mining, milling, or otherwise preparing vermiculite. Establishments engaged in manufacturing exfoliated vermiculite are classified in Industry 3295, Minerals: Ground

or Treated. Separate statistics for 1954 for the vermiculite industry could not be shown without approximately disclosing figures of individual companies. Accordingly, statistics for this industry are combined with those for Industry 1499, Nonmetallic Minerals, n.e.c.

Industry 1498, Peat, represents establishments primarily engaged in mining peat (including reed or sedge peat, peat humus, and peat moss), and in the preparation (grinding, shredding, and screening) of peat.

Industry 1499, (Miscellaneous) Nonmetallic Minerals, Not Elsewhere Classified, represents establishments primarily engaged in mining, quarrying, milling, or otherwise preparing miscellaneous nonmetallic minerals, not elsewhere classified, such as asbestos, diatomite, natural gem stones, graphite, greensand, perlite, and Iceland spar (optical grade calcite). Separate subindustry figures have been tabulated for 1954 for "Asbestos," "Diatomite," "Perlite," and "Greensand and other minerals." Figures for the latter subindustry have been combined with statistics for the "Vermiculite" industry. Separate statistics were shown for 1939 for "Asbestos," "Diatomite," and "Vermiculite."

The total value of shipments of the miscellaneous nonmetallic minerals (except fuels) industries in 1954 was \$59.6 million, of which primary products of these industries amounted to \$59.3 million and secondary products, products purchased and resold without further processing, and receipts for services amounted to only \$0.3 million. Of the total value of shipments for this group, the gypsum industry accounted for almost \$7 million; the mica industry, \$4 million; the native asphalt and bitumens industry, \$6 million; the pumice and pumicite industry, \$3 million; the talc, soapstone, and pyrophyllite industry, \$12 million; the peat industry, \$2 million; and the vermiculite and miscellaneous nonmetallic minerals industries, \$25 million. These figures represent gross value of shipments and some of them contain duplication due to the inclusion of shipments of crude minerals to other establishments in the same industry for preparation. However, the cost of crude minerals received for preparation in all of these industries was only \$0.6 million representing principally receipts by the talc, soapstone, and pyrophyllite and nonmetallic minerals, n.e.c., industries.

The 1954 report forms used by the Bureau of the Census for the mica industry, the native asphalt and bitumens industry, the peat industry, and for graphite establishments in the nonmetallic minerals, n.e.c., industry also provided the information required by the Bureau of Mines for its annual statistics on these commodities. There are no differences between the figures compiled by the two Bureaus on graphite and on native asphalt and bitumens, and the figures for peat differed by less than one percent. For the mica industry, the differences between the figures published by the two Bureaus are also small, arising principally from the differences in methods followed and objectives sought in compiling and presenting the statistics. The nature of these differences is summarized below:

1. Figures for establishments with value of shipments less than \$500 are excluded from this report unless principal expenses amounted to \$500 or more. The Bureau of Mines included production from all known domestic mines, regardless of the size of the operation.

2. For scrap mica, the differences in figures shown are primarily due to the Bureau of the Census tabulating shipments whereas the Bureau of Mines tabulates scrap mica sold or used. The Census shipments represent only that scrap mica which is sold to consumers for grinding. Scrap mica which is produced and consumed at the same establishment in making

ground mica is not included in these shipments but appears only in terms of shipments of the ground mica made from the scrap. The Bureau of Mines tabulates as sold or used all scrap mica whether it is shipped to consumers for grinding or is produced and consumed at the same establishment in making ground mica.

Figures on other products in this report were collected independently by the Bureau of the Census and the Bureau of Mines. There are some differences, mostly small, between the figures collected by the two Bureaus for these products as shown in the accompanying table.

The reasons for these differences are summarized below:

1. The Bureau of the Census collects information on production and shipments whereas the Bureau of Mines generally obtains data on products sold or used.

2. A respondent may report different figures for the same product to the two Bureaus.

3. The Bureau of the Census may have better coverage of certain industries than the Bureau of Mines.

Direct comparisons between the figures obtained by the two Bureaus on vermiculite and diatomite cannot be shown. However, the differences between the figures for these products were relatively small.

Product	Unit of quantity	Bureau of the Census (quantity produced)	Bureau of Mines (quantity sold or used)
Gypsum (crude)...	1000 short tons	9,057	¹ 8,996
Pumice and pumicite.....	.....do.....	1,938	1,647
Talc, soapstone, and pyrophyllite (ground).....	.....do.....	² 579	³ 580
Perlite (crude)...	.....do.....	277	¹ 261
Asbestos.....	short tons.....	49,310	47,621
Greensand marl...	.....do.....	2,900	2,838

¹Represents production.

²Represents net shipments.

³Represents sales.

Table 1.—COMPARATIVE STATISTICS FOR THE MISCELLANEOUS NONMETALLIC MINERALS (EXCEPT FUELS) INDUSTRIES IN THE UNITED STATES:
1954, 1939, 1929, 1919, 1909, 1902, 1889, 1880, 1870, 1860, AND 1850

(For explanation of line captions and for statement on the minimum size of establishments included for each year, see INTRODUCTION)

Item	Miscellaneous nonmetallic minerals (except fuels) operations, total								
	1954			1939 ⁴ 5	1909 ⁵	1902 ⁴	1889 ⁴		
	Total	Mines and plants classified in mineral industries	Mines included in establishments classified in manufacturing industries						
Number of operating companies.....	761	757	5	6184	6298	6620	(NA)		
Number of establishments.....	875	848	27	(NA)	300	(NA)	(NA)		
Number of mines.....	895	868	27	220	565	244	(NA)		
Number of preparation plants.....	685	685	...	143	(NA)	(NA)	(NA)		
Production of primary products ⁷	xxx	xxx	xxx	xxx	xxx	xxx	xxx		
Value of shipments, total ⁸.....\$1,000..	63,267	59,579	3,688	14,939	8,600	⁹ 4,241	⁹ 1,753		
Primary products ⁷ 8.....do....	62,940	59,252	3,688	14,568	8,600	{ 4,241 (NA)	1,753 (NA)		
Other products and services.....do....	327	327	xxx	371					
Value added in mining.....do....	(NA)	44,957	(NA)	11,819	6,410	3,648	1,535		
Number of persons engaged, total.....	(NA)	6,342	(NA)	4,750	6,747	3,288	1,826		
Production and development workers.....	(NA)	4,733	(NA)	4,126	5,883	¹⁰ 2,827	¹¹ 1,729		
All other employees.....	(NA)	836	(NA)	543	679	461	¹² 97		
Proprietors and firm members.....	(NA)	773	(NA)	81	185	(NA)	(NA)		
Performing manual labor.....	(NA)	547	(NA)	32	84	(NA)	(NA)		
Man-hours worked by production and development workers, total.....1,000..	11,725	9,667	2,058	8,063	(NA)	(NA)	(NA)		
At mines, total.....do....	6,443	4,385	2,058	¹³ 5,048	(NA)	(NA)	(NA)		
Open-pit or quarry.....do....	3,493	2,675	¹⁴ 818	¹³ 2,083	(NA)	(NA)	(NA)		
Underground.....do....	2,461	1,221	¹⁴ 1,240	¹³ 2,570	(NA)	(NA)	(NA)		
Surface (including mine shops and yards).....do....	489	489	(¹⁴)	¹³ 395	(NA)	(NA)	(NA)		
At preparation plants.....do....	5,282	5,282	(¹⁴)	¹³ 2,850	(NA)	(NA)	(NA)		
Tons of primary products per man-hour.....	xxx	xxx	xxx	xxx	xxx	xxx	xxx		
Principal expenses designated below, total.....\$1,000..	(NA)	36,005	(NA)	¹⁶ 8,311	6,005	¹⁶ 2,422	¹⁶ 889		
Wages of production and development workers.....do....	19,246	15,241	4,005	4,029	2,975	1,349	671		
Salaries of all other employees.....do....	(NA)	4,262	(NA)	1,162	840	480			
Minerals received for preparation ¹⁷.....do....	{ 19,442	558	{ 2,940	(NA)	...	(NA)	(NA)		
Supplies ¹⁸.....do....		9,711		2,244	1,400	582	195		
Fuel.....do....		1,957		364	729				
Purchased electric energy.....do....		1,617		495					
Contract work.....do....		2,659		17	61	11	23		
Purchased machinery installed.....do....	(NA)	5,729	(NA)	(NA)	(NA)	(NA)	(NA)		
Capital expenditures, total.....do....	(NA)	7,609	(NA)	(NA)	(NA)	(NA)	(NA)		
Development and exploration of mineral property.....do....	(NA)	857	(NA)	(NA)	(NA)	(NA)	(NA)		
Preparation plant construction.....do....	(NA)	1,534	(NA)	175	(NA)	(NA)	(NA)		
Other construction.....do....	(NA)	140	(NA)		(NA)	(NA)	(NA)		
New machinery and equipment.....do....	(NA)	2,736	(NA)		480	(NA)	(NA)		
Used plant and equipment.....do....	(NA)	2,342	(NA)		95	(NA)	(NA)		
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	(NA)	238,325	(NA)	73,734	33,372	13,603	(NA)		
Per production worker.....	(NA)	50	(NA)	18	6	5	(NA)		
Prime movers.....	(NA)	153,101	(NA)	29,852	30,417	13,593	(NA)		
Electric motors driven by purchased energy.....	(NA)	85,224	(NA)	43,882	2,955	10	(NA)		
Horsepower rating of electric motors driven by energy generated at establishments reported.....	(NA)	4,029	(NA)	7,050	2,669	339	(NA)		
Energy used.....million kwh equivalent..	(NA)	1,105	(NA)	436	(NA)	(NA)	(NA)		
Coal.....1,000 short tons..	(NA)	13	(NA)	22	(NA)	(NA)	(NA)		
Fuel oils.....1,000 barrels..	(NA)	245	(NA)	43	(NA)	(NA)	(NA)		
Gas (natural and manufactured).....million cu. ft..	(NA)	1,003	(NA)	388	(NA)	(NA)	(NA)		
Electric energy purchased.....million kwh..	(NA)	143	(NA)	31	(NA)	(NA)	(NA)		
Electric energy generated and used.....do....	(NA)	4	(NA)	5	(NA)	(NA)	(NA)		

See footnotes at end of table.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 1.—COMPARATIVE STATISTICS FOR THE MISCELLANEOUS NONMETALLIC MINERALS (EXCEPT FUELS) INDUSTRIES IN THE UNITED STATES:
1954, 1939, 1929, 1919, 1909, 1902, 1889, 1880, 1870, 1860, AND 1850—Continued

(For explanation of line captions and for statement on the minimum size of establishments included for each year, see INTRODUCTION)

Item	Gypsum operations										
	1954			1939	1929 ⁵	1919	1909	1902	1889		
	Total	Mines and plants classified in mineral industries	Mines included in establishments classified in manufacturing industries								
Number of operating companies.....	38	34	5	34	(NA)	(NA)	82	45	(NA)		
Number of establishments.....	64	37	27	(NA)	60	47	82	(NA)	(NA)		
Number of mines.....	61	34	27	59	63	48	228	62	24		
Number of preparation plants.....	22	22	...	25	(NA)	27	(NA)	(NA)	(NA)		
Production of primary products ⁷.....1,000 short tons..	9,057	2,487	6,570	3,302	5,152	2,420	2,253	816	268		
Value of shipments, total ⁸.....\$1,000..	10,319	6,631	3,688	4,569	5,740	6,806	5,813	⁹ 2,089	⁹ 764		
Primary products ⁷ ⁸.....do....	10,301	6,613	3,688	4,569	5,740	6,806	5,813	{ 2,089	764		
Other products and services.....do....	18	18	xxx				(NA)	(NA)
Value added in mining.....do....	(NA)	5,352	(NA)	3,756	4,516	4,612	4,235	1,747	625		
Number of persons engaged, total.....	(NA)	470	(NA)	1,431	2,214	2,477	3,910	1,721	761		
Production and development workers.....	(NA)	399	(NA)	1,327	2,078	2,191	3,469	¹⁰ 1,472	¹¹ 715		
All other employees.....	(NA)	50	(NA)	97	134	282	432	249	46		
Proprietors and firm members.....	(NA)	21	(NA)	7	2	4	9	(NA)	(NA)		
Performing manual labor.....	(NA)	7	(NA)	...	(NA)	3	7	(NA)	(NA)		
Man-hours worked by production and development workers, total.....1,000..	2,984	926	2,058	2,466	(NA)	(NA)	(NA)	(NA)	(NA)		
At mines, total.....do....	2,646	588	2,058	¹³ 2,265	(NA)	(NA)	(NA)	(NA)	(NA)		
Open-pit or quarry.....do....	1,285	467	¹⁴ 818	¹³ 529	(NA)	(NA)	(NA)	(NA)	(NA)		
Underground.....do....	1,335	95	¹⁴ 1,240	¹³ 1,593	(NA)	(NA)	(NA)	(NA)	(NA)		
Surface (including mine shops and yards).....do....	26	26	(¹⁴)	¹³ 143	(NA)	(NA)	(NA)	(NA)	(NA)		
At preparation plants.....do....	338	338	(¹⁴)	¹³ 138	(NA)	(NA)	(NA)	(NA)	(NA)		
Tons of primary products per man-hour.....	3.04	2.69	¹⁴ 3.19	1.43	(NA)	(NA)	(NA)	(NA)	(NA)		
Principal expenses designated below, total.....\$1,000..	(NA)	3,159	(NA)	¹⁶ 2,670	¹⁶ 4,159	5,227	3,955	¹⁶ 1,401	¹⁶ 388		
Wages of production and development workers.....do....	5,572	1,567	4,005	1,640	2,628	2,478	1,825	759	249		
Salaries of all other employees.....do....	(NA)	285	(NA)	217	307	555	552	300			
Minerals received for preparation ¹⁷.....do....	4,247	{ 924 }	{ 2,940 }	(NA)	(NA)	...	...	(NA)	(NA)
Supplies ¹⁸.....do....				624	795	1,530	988	{ 342 }	129		
Fuel.....do....				37	137	516	573				
Purchased electric energy.....do....				146	285	144					
Contract work.....do....				72	6	7	4	17	...	10	
Purchased machinery installed.....do....	(NA)	2,395	(NA)	(NA)	578	(NA)	(NA)	(NA)	(NA)		
Capital expenditures, total.....do....	(NA)	2,423	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)		
Development and exploration of mineral property.....do....	(NA)	13	(NA)	(NA)	127	12	(NA)	(NA)	(NA)		
Preparation plant construction.....do....	(NA)	46	(NA)	27	(NA)	(NA)	(NA)	(NA)	(NA)		
Other construction.....do....	(NA)	2	(NA)		(NA)	(NA)	(NA)	(NA)	(NA)		
New machinery and equipment.....do....	(NA)	402	(NA)	254	(NA)	(NA)	(NA)	(NA)	(NA)		
Used plant and equipment.....do....	(NA)	1,960	(NA)	22	(NA)	(NA)	(NA)	(NA)	(NA)		
Horsepower rating of power equipment, (prime movers and electric motors driven by purchased energy), total.....	(NA)	28,193	(NA)	28,538	26,498	15,032	17,695	7,319	2,045		
Per production worker.....	(NA)	71	(NA)	22	13	7	5	5	3		
Prime movers.....	(NA)	15,646	(NA)	7,363	5,348	7,038	15,035	7,319	2,045		
Electric motors driven by purchased energy.....	(NA)	12,547	(NA)	21,175	21,150	7,994	2,660	...	(NA)		
Horsepower rating of electric motors driven by energy generated at establishments reported.....	(NA)	55	(NA)	2,286	1,939	1,447	1,333	68	(NA)		
Energy used.....million kwh equivalent..	(NA)	85	(NA)	29	172	706	(NA)	(NA)	(NA)		
Coal.....1,000 short tons..	(NA)	(D)	(NA)	...	13	76	(NA)	(NA)	(NA)		
Fuel oils.....1,000 barrels..	(NA)	19	(NA)	5	18	63	(NA)	(NA)	(NA)		
Gas (natural and manufactured).....million cu. ft..	(NA)	(D)	(NA)	4	5	...	(NA)	(NA)	(NA)		
Electric energy purchased.....million kwh..	(NA)	12	(NA)	12	19	(NA)	(NA)	(NA)	(NA)		
Electric energy generated and used.....do....	(NA)	...	(NA)	2	5	(NA)	(NA)	(NA)	(NA)		

See footnotes at end of table.

Table 1.—COMPARATIVE STATISTICS FOR THE MISCELLANEOUS NONMETALLIC MINERALS (EXCEPT FUELS) INDUSTRIES IN THE UNITED STATES:
1954, 1939, 1929, 1919, 1909, 1902, 1889, 1880, 1870, 1860, AND 1850—Continued

(For explanation of line captions and for statement on the minimum size of establishments included for each year, see INTRODUCTION)

Item	Mica industry ²¹										
	1954	1939	1929 ⁵	1919 ⁵	1909	1902	1889	1880	1870	1860	1850
Number of operating companies.....	446	22	(NA)	(NA)	77	38	(NA)	(NA)	(NA)	(NA)	(NA)
Number of establishments.....	498	(NA)	24	65	77	(NA)	(NA)	(NA)	1	1	
Number of mines.....	510	21	32	69	82	49	4	22	(NA)	(NA)	(NA)
Number of preparation plants.....	444	10	(NA)	9	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Production of primary products ⁷.....short tons..	59,068	20,731	12,130	(NA)	(NA)	1,587	221	41	(NA)	(NA)	(NA)
Value of shipments, total ⁸.....\$1,000..	4,126	327	516	607	207	⁹ 119	⁹ 52	⁹ 128	⁹ 7	⁹ 4	⁹ 2
Primary products ⁷ ⁸.....do....	4,083	316	510	606	207	119	52	128	7	4	2
Other products and services.....do....	43	11	6	1		(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Value added in mining.....do....	3,284	276	415	469	177	107	45	122	6	4	2
Number of persons engaged, total.....	1,259	221	250	555	424	119	185	272	(NA)	(NA)	(NA)
Production and development workers.....	668	190	226	448	284	¹⁰ 98	¹¹ 70	¹¹ 272	24	16	3
All other employees.....	42	20	23	40	21	21	15				
Proprietors and firm members.....	549	11	1	67	119	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Performing manual labor.....	432	7	(NA)	27	65	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Man-hours worked by production and development workers, total.....1,000..	1,196	361	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
At mines, total.....do....	594	¹³ 248	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Open-pit or quarry.....do....	276	¹³ 136	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Underground.....do....	297	¹³ 112	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Surface (including mine shops and yards).....do....	21	...	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
At preparation plants.....do....	602	¹³ 112	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Tons of primary products per man-hour.....	(¹⁵)	0.057	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Principal expenses designated below, total.....\$1,000..	2,570	¹⁶ 189	¹⁶ 354	473	173	¹⁶ 69	¹⁶ 49	¹⁶ 72	¹⁶ 6	¹⁶ 2	¹⁶ 1
Wages of production and development workers.....do....	1,255	118	195	288	125	44	36	66	5	2	1
Salaries of all other employees.....do....	87	20	58	47	18	13	6				
Minerals received for preparation ¹⁷.....do....	34	(NA)	(NA)	...	...	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Supplies ¹⁸.....do....	564	25	65	108	11	12	7	6	1	...	...
Fuel.....do....	151	10	18	21	}		}		(NA)	(NA)	(NA)	(NA)
Purchased electric energy.....do....	132	16	18	2		7		...	(NA)	(NA)	(NA)	(NA)
Contract work.....do....	347	7	(NA)		(NA)		(NA)	(NA)	(NA)	(NA)
Purchased machinery installed.....do....	474	(NA)	6	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Capital expenditures, total.....do....	860	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Development and exploration of mineral property.....do....	255	(NA)	14	65	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Preparation plant construction.....do....	176	1	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Other construction.....do....	12		(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
New machinery and equipment.....do....	321	6	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Used plant and equipment.....do....	96	2	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	17,092	1,696	1,721	803	463	185	(NA)	(NA)	(NA)	(NA)	(NA)
Per production worker.....	(¹⁵)	9	8	2	2	2	(NA)	(NA)	(NA)	(NA)	(NA)
Prime movers.....	12,709	954	732	763	463	185	(NA)	(NA)	(NA)	(NA)	(NA)
Electric motors driven by purchased energy.....	4,383	742	989	40	...	...	(NA)	(NA)	(NA)	(NA)	(NA)
Horsepower rating of electric motors driven by energy generated at establishments reported.....	13	271	113	...	172	16	(NA)	(NA)	(NA)	(NA)	(NA)
Energy used.....million kwh equivalent..	58	6	20	28	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Coal.....1,000 short tons..	...	...	2	3	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Fuel oils.....1,000 barrels..	17	1	1	...	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Gas (natural and manufactured).....million cu. ft..	(D)	...	...	...	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Electric energy purchased.....million kwh..	9	1	1	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Electric energy generated and used.....do....	...	...	....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)

See footnotes at end of table.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 1.—COMPARATIVE STATISTICS FOR THE MISCELLANEOUS NONMETALLIC MINERALS (EXCEPT FURLS) INDUSTRIES IN THE UNITED STATES:
1954, 1939, 1929, 1919, 1909, 1902, 1889, 1880, 1870, 1860, AND 1850—Continued

(For explanation of line captions and for statement on the minimum size of establishments included for each year, see INTRODUCTION)

Item	Native asphalt and bitumens industry										Pumice and pumicite industry ¹	
	1954	1939	1929	1919	1909 ⁵	1902	1889	1880	1870	1860	1954	1939
Number of operating companies.....	9	23	(NA)	(NA)	12	24	(NA)	(NA)	(NA)	(NA)	73	15
Number of establishments.....	12	(NA)	21	9	14	(NA)	(NA)	(NA)	1	1	75	17
Number of mines.....	12	23	25	12	19	24	(NA)	2	(NA)	(NA)	75	17
Number of preparation plants.....	8	15	(NA)	...	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	47	14
Production of primary products ⁷....1,000 short tons..	1,417	495	819	(NA)	(NA)	66	52	0.4	30	(NA)	1,818	87
Value of shipments, total ⁸.....\$1,000..	6,424	2,968	5,124	750	466	⁹ 237	⁹ 174	⁹ 4	⁹ 450	⁹ 10	3,393	387
Primary products ⁷ ⁸.....do....	6,408	2,818	5,123	750	466	{ 237	174	4	450	10	3,324	362
Other products and services.....do....	16	150	1	...								
Value added in mining.....do....	4,857	2,554	4,345	343	370	205	152	4	423	6	2,741	301
Number of persons engaged, total.....	563	860	1,307	387	234	208	136	12	23	4	326	139
Production and development workers.....	451	730	1,123	324	208	¹⁰ 156	¹¹ 126	} ¹¹ 12	23	4	{ 223	122
All other employees.....	100	123	183	63	26	52	10					
Proprietors and firm members.....	12	7	1	...	...	(NA)	(NA)	(NA)	(NA)	(NA)	59	12
Performing manual labor.....	3	1	(NA)	...	...	(NA)	(NA)	(NA)	(NA)	(NA)	35	5
Man-hours worked by production and development workers, total.....1,000..	987	1,330	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	440	197
At mines, total.....do....	620	¹³ 1,043	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	169	93
Open-pit or quarry.....do....	244	¹³ 708	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	165	71
Underground.....do....	147	¹³ 183	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	...	22
Surface (including mine shops and yards).do....	229	¹³ 152	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	4	...
At preparation plants.....do....	367	¹³ 262	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	271	104
Tons of primary products per man-hour.....	1.44	0.37	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	4.13	0.44
Principal expenses designated below, total...\$1,000..	3,790	¹⁶ 1,306	¹⁶ 2,620	838	269	¹⁶ 160	¹⁶ 89	¹⁶ 2	¹⁶ 47	¹⁶ 8	1,731	¹⁶ 212
Wages of production and development.....do....	1,443	608	1,255	295	129	80	60	} 2	20	4	{ 748	119
Salaries of all other employees.....do....	704	284	586	136	44	48	7					
Minerals received for preparation ¹⁷.....do....	...	(NA)	(NA)	...	...	(NA)	(NA)	(NA)	(NA)	(NA)	334	(NA)
Supplies ¹⁸.....do....	1,251	317	518	376	66	} 22	14	(NA)	{ 27	4	{ 45	30
Fuel.....do....	137	68	138	25	14							
Purchased electric energy.....do....	85	28	39	...	} 14	10	8	(NA)	(NA)	(NA)	40	11
Contract work.....do....	170	1	84	6								
Purchased machinery installed.....do....	476	(NA)	182	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	298	(NA)
Capital expenditures, total.....do....	552	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	415	(NA)
Development and exploration of mineral property.....do....	114	(NA)	39	377	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	32	(NA)
Preparation plant construction.....do....	23	} 26	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	75	} 4
Other construction.....do....	1		(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	23	
New machinery and equipment.....do....	402	72	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	99	9
Used plant and equipment.....do....	12	17	182	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	186	4
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy)total	31,340	12,966	13,109	648	828	720	(NA)	(NA)	50	(NA)	25,717	2,463
Per production worker.....	69	18	12	2	4	5	(NA)	(NA)	2	2	115	20
Prime movers.....	22,510	8,690	10,177	648	828	720	(NA)	(NA)	50	50	22,189	1,058
Electric motors driven by purchased energy.....	8,830	4,276	2,932	...	...	...	(NA)	(NA)	(NA)	(NA)	3,528	1,405
Horsepower rating of electric motors driven by energy generated at establishments reported.....	1,858	1,348	3,136	...	...	25	(NA)	(NA)	(NA)	(NA)	210	...
Energy used.....million kwh equivalent..	66	125	285	43	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	56	19
Coal.....1,000 short tons..	2	14	31	5	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	...	...
Fuel oils.....1,000 barrels..	17	5	23	3	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	8	7
Gas (natural and manufactured)....million cu. ft..	(D)	1	...	...	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	72	22
Electric energy purchased.....million kwh..	5	1	1	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	2	1
Electric energy generated and used.....do....	(D)	...	3	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	...	...

See footnotes at end of table.

Table 1.—COMPARATIVE STATISTICS FOR THE MISCELLANEOUS NONMETALLIC MINERALS (EXCEPT FUELS) INDUSTRIES IN THE UNITED STATES:
1954, 1939, 1929, 1919, 1909, 1902, 1889, 1880, 1870, 1860, AND 1850—Continued

(For explanation of line captions and for statement on the minimum size of establishments included for each year, see INTRODUCTION)

Item	Pumice and pumicite industry, ¹ Cont. 1909	Talc, soapstone, and pyrophyllite industry									
		1954	1939	1929	1919	1909	1902	1889	1880	1870	1860
Number of operating companies.....	3	54	29	(NA)	(NA)	39	20	(NA)	(NA)	(NA)	(NA)
Number of establishments.....	(NA)	68	(NA)	25	28	39	(NA)	(NA)	(NA)	9	6
Number of mines.....	4	75	38	28	30	46	20	(NA)	14	(NA)	(NA)
Number of preparation plants.....	(NA)	39	26	(NA)	23	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Production of primary products ⁷.....1,000 short tons..	(NA)	610	254	243	(NA)	(NA)	98	36	13	(NA)	(NA)
Value of shipments, total ⁸.....\$1,000..	30	11,819	3,269	2,688	2,302	1,175	⁹ 1,138	⁹ 476	⁹ 121	⁹ 189	⁹ 28
Primary products ⁷ ⁸.....do....	30	{ 11,819	3,088	2,625	2,296	1,175	{ 1,138	476	121	189	28
Other products and services.....do....			181	63	6			(NA)	(NA)	(NA)	(NA)
Value added in mining.....do....	29	9,486	2,441	2,012	1,749	909	1,012	437	103	91	18
Number of persons engaged, total.....	22	1,501	1,154	632	1,069	1,372	846	280	178	74	27
Production and development workers.....	15	1,297	970	550	958	1,256	¹⁰ 771	¹¹ 260	{ ¹¹ 178	74	27
All other employees.....	2	174	167	82	103	100	75	20			
Proprietors and firm members.....	5	30	17	...	8	16	(NA)	(NA)	(NA)	(NA)	(NA)
Performing manual labor.....	3	14	10	...	2	2	(NA)	(NA)	(NA)	(NA)	(NA)
Man-hours worked by production and development workers, total.....1,000..	(NA)	2,778	2,068	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
At mines, total.....do....	(NA)	1,134	¹³ 785	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Open-pit or quarry.....do....	(NA)	540	¹³ 153	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Underground.....do....	(NA)	506	¹³ 597	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Surface (including mine shops and yards).....do....	(NA)	88	¹³ 35	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
At preparation plants.....do....	(NA)	1,644	¹³ 125	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Tons of primary products per man-hour.....	(NA)	0.22	0.12	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Principal expenses designated below, total.....\$1,000..	6	7,984	¹⁶ 2,017	¹⁶ 1,508	1,603	873	¹⁶ 469	¹⁶ 155	¹⁶ 76	¹⁶ 136	¹⁶ 21
Wages of production and development workers.....do....	5	4,141	807	615	835	504	279	101	{ 58	38	11
Salaries of all other employees.....do....	...	799	382	217	215	103	64	15			
Minerals received for preparation ¹⁷.....do....	...	256	(NA)	(NA)	...	...	(NA)	(NA)	(NA)	(NA)	(NA)
Supplies ¹⁸.....do....	1	1,671	619	531	345	196	{ 126	35	18	98	10
Fuel.....do....	...	238	45	29	109	66					
Purchased electric energy.....do....	...	467	162	99	46	...	...	4	(NA)	(NA)	(NA)
Contract work.....do....	...	412	2	17	53	4	...	...	(NA)	(NA)	(NA)
Purchased machinery installed.....do....	(NA)	486	(NA)	35	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Capital expenditures, total.....do....	(NA)	1,197	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Development and exploration of mineral property.....do....	(NA)	300	(NA)	57	59	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Preparation plant construction.....do....	(NA)	391	{ 62	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Other construction.....do....	(NA)	62		(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
New machinery and equipment.....do....	(NA)	407	65	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Used plant and equipment.....do....	(NA)	37	38	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Horsepower rating of power equipment (primemovers and electric motors driven by purchased energy), total.....	...	36,349	12,049	10,530	7,053	9,433	3,945	(NA)	(NA)	(NA)	(NA)
Per production worker.....	...	28	12	19	7	8	5	(NA)	(NA)	(NA)	(NA)
Prime movers.....	...	20,362	5,181	3,937	4,057	9,298	3,945	(NA)	(NA)	(NA)	(NA)
Electric motors driven by purchased energy....	...	15,987	6,868	6,593	2,996	135	...	(NA)	(NA)	(NA)	(NA)
Horsepower rating of electric motors driven by energy generated at establishments reported.....	...	1,421	2,382	750	1,078	430	225	(NA)	(NA)	(NA)	(NA)
Energy used.....million kwh equivalent..	(NA)	133	53	59	108	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Coal.....1,000 short tons..	(NA)	2	4	6	13	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Fuel oils.....1,000 barrels..	(NA)	36	5	...	...	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Gas (natural and manufactured).....million cu. ft..	(NA)	(D)	1	...	...	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Electric energy purchased.....million kwh..	(NA)	40	16	8	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Electric energy generated and used.....do....	(NA)	1	3	1	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)

See footnotes at end of table.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 1.—COMPARATIVE STATISTICS FOR THE MISCELLANEOUS NONMETALLIC MINERALS (EXCEPT FUELS) INDUSTRIES IN THE UNITED STATES:
1954, 1939, 1929, 1919, 1909, 1902, 1889, 1880, 1870, 1860, AND 1850—Continued

(For explanation of line captions and for statement on the minimum size of establishments included for each year, see INTRODUCTION)

Item	Peat industry				Vermiculite and Nonmetallic minerals, n.e.c., industries					
	1954	1939 ⁵	1909 ⁵	1870	Total		Asbestos subindustry ²¹			
					1954	1939	1954	1939	1929 ⁵	1919
Number of operating companies.....	86	23	10	(NA)	63	638	17	9	(NA)	(NA)
Number of establishments.....	88	(NA)	10	4	70	(NA)	17	(NA)	11	10
Number of mines.....	87	25	10	(NA)	75	37	22	9	11	11
Number of preparation plants.....	68	23	(NA)	(NA)	57	30	12	7	(NA)	3
1,000 short tons for peat..										
Production of primary products ⁷ ..short tons for asbestos....	249	56	(NA)	(NA)	xxx	xxx	49,310	15	3,440	(NA)
Value of shipments, total ⁸.....\$1,000..	2,326	378	109	98	24,860	3,041	4,877	492	397	250
Primary products ⁷ 8.....do....	2,307	378	109	{ 8	24,698	3,037	4,874	492	397	250
Other products and services.....do....	19	...			162	4	3	...	...	...
Value added in mining.....do....	1,800	338	85	7	17,437	2,153	3,899	341	319	198
Number of persons engaged, total.....	422	195	127	39	1,801	750	443	172	211	165
Production and development workers.....	321	157	112	39	1,374	630	394	160	195	146
All other employees.....	32	27	14		394	104	41	9	16	14
Proprietors and firm members.....	69	11	1	(NA)	33	16	8	3	...	5
Performing manual labor.....	42	4	...	(NA)	14	5	2	...	...	1
Man-hours worked by production and development workers, total.....1,000..	637	246	(NA)	(NA)	2,703	1,395	754	344	(NA)	(NA)
At mines, total.....do....	431	166	(NA)	(NA)	849	448	396	13164	(NA)	(NA)
Open-pit or quarry.....do....	407	166	(NA)	(NA)	576	320	188	1393	(NA)	(NA)
Underground.....do....	...	...	(NA)	(NA)	176	63	169	1343	(NA)	(NA)
Surface (including mine shops and yards).....do....	24	...	(NA)	(NA)	97	65	39	1328	(NA)	(NA)
At preparation plants.....do....	206	80	(NA)	(NA)	1,854	896	358	13137	(NA)	(NA)
Tons of primary products per man-hour.....do....	0.39	0.22	(NA)	(NA)	xxx	xxx	0.07	0.045	(NA)	(NA)
Principal expenses designated below, total.....\$1,000..	1,512	16184	84	167	15,259	161,733	2,495	16320	16349	173
Wages of production and development workers.....do....	829	101	40	6	5,258	636	1,164	151	237	92
Salaries of all other employees.....do....	111	43	20		2,062	209	238	18	34	29
Minerals received for preparation ¹⁷.....do....	...	(NA)	...	(NA)	265	(NA)	...	(NA)	(NA)	...
Supplies ¹⁸.....do....	321	21	6	1	4,649	593	606	86	36	47
Fuel.....do....	174	15	18	{	967	159	153	22	27	3
Purchased electric energy.....do....	31	4			(NA)	722	128	160	40	13
Contract work.....do....	46	...	...	(NA)	1,336	8	174	3	2	...
Purchased machinery installed.....do....	159	(NA)	(NA)	(NA)	1,441	(NA)	248	(NA)	89	(NA)
Capital expenditures, total.....do....	205	(NA)	(NA)	(NA)	1,957	(NA)	363	(NA)	(NA)	(NA)
Development and exploration of mineral property.....do....	34	(NA)	(NA)	(NA)	109	(NA)	89	(NA)	93	47
Preparation plant construction.....do....	15	8	(NA)	(NA)	808	(NA)	66	7	(NA)	(NA)
Other construction.....do....	28		(NA)	(NA)	12	47	8		(NA)	(NA)
New machinery and equipment.....do....	104	10	(NA)	(NA)	1,001	64	189	11	(NA)	(NA)
Used plant and equipment.....do....	24	8	(NA)	(NA)	27	4	11	2	(NA)	(NA)
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	23,599	2,759	1,416	35	76,035	13,263	16,845	4,179	2,114	420
Per production worker.....	74	18	13	(NA)	55	21	43	26	11	3
Prime movers.....	22,099	1,885	1,366	35	37,586	4,721	7,957	1,001	695	355
Electric motors driven by purchased energy.....	1,500	874	50	(NA)	38,449	8,542	8,888	3,178	1,419	65
Horsepower rating of electric motors driven by energy generated at establishments reported.....	...	...	244	(NA)	472	763	212	125	40	...
Energy used.....million kwh equivalent..	87	7	...	...	620	197	(20)	14	15	3
Coal.....1,000 short tons..	6	...	...	...	...	4	(20)	...	1	...
Fuel oils.....1,000 barrels..	6	...	...	...	142	20	(20)	4	3	...
Gas (natural and manufactured).....million cu. ft..	(D)	...	...	...	898	360	(20)	...	...	...
Electric energy purchased.....million kwh..	2	...	...	...	73	...	(20)	5	1	(NA)
Electric energy generated and used.....do....	...	...	...	...	1	1	...	...	...	(NA)

See footnotes at end of table.

Table 1.—COMPARATIVE STATISTICS FOR THE MISCELLANEOUS NONMETALLIC MINERALS (EXCEPT FUELS) INDUSTRIES IN THE UNITED STATES:
1954, 1939, 1929, 1919, 1909, 1902, 1889, 1880, 1870, 1860, AND 1850—Continued

(For explanation of line captions and for statement on the minimum size of establishments included for each year, see INTRODUCTION)

Item	Vermiculite and Nonmetallic minerals, n.e.c. industries--Continued								
	Asbestos subindustry ²¹ --Continued				Diatomite subindustry ²				
	1909	1902	1889	1880	1954	1939	⁵ 1909	⁵ 1902	1889
Number of operating companies.....	10	4	(NA)	(NA)	11	14	14	10	(NA)
Number of establishments.....	10	(NA)	(NA)	(NA)	14	(NA)	14	(NA)	(NA)
Number of mines.....	96	4	(NA)	7	14	14	16	11	(NA)
Number of preparation plants.....	(NA)	(NA)	(NA)	(NA)	14	12	(NA)	(NA)	(NA)
Production of primary products ⁷ ..1,000 short tons for asbestos..	(NA)	2,505	30	150	437	98	(NA)	6	3
Production of primary products ⁷ ..1,000 short tons for diatomite	(NA)	2,505	30	150	437	98	(NA)	6	3
Value of shipments, total ⁸.....\$1,000..	65	946	92	94	14,784	2,018	76	956	923
Primary products ⁷ 8.....do....	65	46	2	4	14,784	2,018	76	56	23
Other products and services.....do....	{	{ (NA)	{ (NA)	{ (NA)	{	{ ...	{	{ (NA)	{ (NA)
Value added in mining.....do....	40	38	1	4	9,233	1,393	61	54	21
Number of persons engaged, total.....	80	30	12	17	869	370	83	43	52
Production and development workers.....	65	1023	119	117	635	299	59	1035	1149
All other employees.....	15	7	3	3	229	62	8	8	3
Proprietors and firm members.....	...	(NA)	(NA)	(NA)	5	9	16	(NA)	(NA)
Performing manual labor.....	...	(NA)	(NA)	(NA)	...	4	1	(NA)	(NA)
Man-hours worked by production and development workers, total.....1,000..	(NA)	(NA)	(NA)	(NA)	1,206	751	(NA)	(NA)	(NA)
At mines, total.....do....	(NA)	(NA)	(NA)	(NA)	205	13186	(NA)	(NA)	(NA)
Open-pit or quarry.....do....	(NA)	(NA)	(NA)	(NA)	198	13150	(NA)	(NA)	(NA)
Underground.....do....	(NA)	(NA)	(NA)	(NA)	...	133	(NA)	(NA)	(NA)
Surface (including mine shops and yards).....do....	(NA)	(NA)	(NA)	(NA)	7	1333	(NA)	(NA)	(NA)
At preparation plants.....do....	(NA)	(NA)	(NA)	(NA)	1,001	13559	(NA)	(NA)	(NA)
Tons of primary products per man-hour.....	(NA)	(NA)	(NA)	(NA)	0.36	(NA)	(NA)	(NA)	(NA)
Principal expenses designated below, total.....\$1,000..	91	1619	163	161	9,470	161,101	48	1620	1611
Wages of production and development workers.....do....	46	8	2	1	2,718	338	28	14	8
Salaries of all other employees.....do....	20	3	(NA)	(NA)	1,162	138	5	4	1
Minerals received for preparation ¹⁷.....do....	...	(NA)	(NA)	(NA)	3,690	(NA)	...	(NA)	(NA)
Supplies ¹⁸.....do....	25	8	1	(NA)	446	96	4	2	1
Fuel.....do....	...	8	1	(NA)	590	83	9	...	...
Purchased electric energy.....do....	...	...	(NA)	(NA)	452	...	2	(NA)	1
Contract work.....do....	...	...	(NA)	(NA)	858	...	2	(NA)	1
Purchased machinery installed.....do....	(NA)	(NA)	(NA)	(NA)	1,036	(NA)	(NA)	(NA)	(NA)
Capital expenditures, total.....do....	(NA)	(NA)	(NA)	(NA)	1,075	(NA)	(NA)	(NA)	(NA)
Development and exploration of mineral property.....do....	(NA)	(NA)	(NA)	(NA)	1	(NA)	(NA)	(NA)	(NA)
Preparation plant construction.....do....	(NA)	(NA)	(NA)	(NA)	347	34	(NA)	(NA)	(NA)
Other construction.....do....	(NA)	(NA)	(NA)	(NA)	3	47	(NA)	(NA)	(NA)
New machinery and equipment.....do....	(NA)	(NA)	(NA)	(NA)	721	1	(NA)	(NA)	(NA)
Used plant and equipment.....do....	(NA)	(NA)	(NA)	(NA)	3	...	(NA)	(NA)	(NA)
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	380	105	(NA)	(NA)	37,907	6,648	316	410	(NA)
Per production worker.....	6	5	(NA)	(NA)	60	22	5	12	(NA)
Prime movers.....	380	105	(NA)	(NA)	15,164	1,757	316	410	(NA)
Electric motors driven by purchased energy.....	...	...	(NA)	(NA)	22,743	4,891	...	...	(NA)
Horsepower rating of electric motors driven by energy generated at establishments reported.....	...	...	(NA)	(NA)	...	...	...	5	(NA)
Energy used.....million kwh equivalent..	(NA)	(NA)	(NA)	(NA)	(²⁰)	139	(NA)	(NA)	(NA)
Coal.....1,000 short tons..	(NA)	(NA)	(NA)	(NA)	(²⁰)	...	(NA)	(NA)	(NA)
Fuel oils.....1,000 barrels..	(NA)	(NA)	(NA)	(NA)	(²⁰)	9	(NA)	(NA)	(NA)
Gas (natural and manufactured).....million cu. ft..	(NA)	(NA)	(NA)	(NA)	(²⁰)	360	(NA)	(NA)	(NA)
Electric energy purchased.....million kwh..	(NA)	(NA)	(NA)	(NA)	(²⁰)	10	(NA)	(NA)	(NA)
Electric energy generated and used.....do....	(NA)	(NA)	(NA)	(NA)	...	...	(NA)	(NA)	(NA)

See footnotes at end of table.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 1.—COMPARATIVE STATISTICS FOR THE MISCELLANEOUS NONMETALLIC MINERALS (EXCEPT FUELS) INDUSTRIES IN THE UNITED STATES:
1954, 1939, 1929, 1919, 1909, 1902, 1889, 1880, 1870, 1860, AND 1850—Continued

(For explanation of line captions and for statement on the minimum size of establishments included for each year, see INTRODUCTION)

Item	Vermiculite and Nonmetallic minerals, n.e.c. industries--Continued								
	Diatomite subindustry—Con.	Perlite subindustry	Vermiculite industry and Greensand and other minerals subindustry ³						
	1880	1954	1954	1939	1919	1909	1902	1889	1880
Number of operating companies.....	(NA)	18	20	15	(NA)	54	³ 479	(NA)	(NA)
Number of establishments.....	(NA)	19	20	(NA)	21	54	(NA)	(NA)	(NA)
Number of mines.....	2	18	21	14	24	64	74	(NA)	4
Number of preparation plants.....	(NA)	18	13	11	16	...	(NA)	(NA)	(NA)
Production of primary products ⁷.....1,000 short tons..	2	277	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Value of shipments, total ⁸.....\$1,000..	⁹ 46	2,259	2,940	531	869	659	⁹ 556	⁹ 262	⁹ 50
Primary products ⁷.....do....	46	2,259	2,940	{ 527 4 }	{ 868 1 }	659	{ 556 (NA) }	262 (NA)	50 (NA)
Other products and services.....do....	(NA)								
Value added in mining.....do....	44	1,621	2,684	419	487	504	485	254	47
Number of persons engaged, total.....	13	134	355	208	493	495	321	400	95
Production and development workers.....	{ 1113 }	101	244	171	419	415	{ ¹⁰ 272 49 }	400	1195
All other employees.....		22	102	33	68	61			
Proprietors and firm members.....		11	9	4	6	19			
Performing manual labor.....		6	6	1	2	6			
Man-hours worked by production and development workers, total.....1,000..	(NA)	241	502	300	(NA)	(NA)	(NA)	(NA)	(NA)
At mines, total.....do....	(NA)	64	184	¹³ 98	(NA)	(NA)	(NA)	(NA)	(NA)
Open-pit or quarry.....do....	(NA)	61	129	¹³ 77	(NA)	(NA)	(NA)	(NA)	(NA)
Underground.....do....	(NA)	...	7	¹³ 17	(NA)	(NA)	(NA)	(NA)	(NA)
Surface (including mine shops and yards).....do....	(NA)	3	48	¹³ 4	(NA)	(NA)	(NA)	(NA)	(NA)
At preparation plants.....do....	(NA)	...	...	...	...	...	...	...	...
Tons of primary products per man-hour.....	(NA)	1.15	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Principal expenses designated below, total.....\$1,000..	¹⁶ 3	1,151	2,143	¹⁶ 312	846	506	¹⁶ 284	¹⁶ 194	¹⁶ 33
Wages of production and development workers.....do....	{ 1 }	369	1,007	147	{ 464 }	273	165	{ 186 }	30
Salaries of all other employees.....do....		117	545	53		78	48		
Minerals received for preparation ¹⁷.....do....		(NA)	...	(NA)		...	(NA)		
Supplies ¹⁸.....do....		¹⁹ 517	¹⁹ 405	61		209	103		
Fuel.....do....	{ 2 }	106	118	41	{ 122 }	37	{ 70 }	8	3
Purchased electric energy.....do....		42	68	5		...			
Contract work.....do....		(¹⁹)	(¹⁹)	5		15			
Purchased machinery installed.....do....		(NA)	69	88	(NA)	(NA)	(NA)	(NA)	(NA)
Capital expenditures, total.....do....	(NA)	96	423	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Development and exploration of mineral property.....do....	(NA)	9	10	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Preparation plant construction.....do....	(NA)	19	376	6	(NA)	(NA)	(NA)	(NA)	(NA)
Other construction.....do....	(NA)	1	...	...	(NA)	(NA)	(NA)	(NA)	(NA)
New machinery and equipment.....do....	(NA)	58	33	6	(NA)	(NA)	(NA)	(NA)	(NA)
Used plant and equipment.....do....	(NA)	9	4	1	(NA)	(NA)	(NA)	(NA)	(NA)
Horsepower rating of prime movers and electric motors driven by purchased energy, total.....	(NA)	7,632	13,651	2,436	6,410	2,841	919	(NA)	320
Per production worker.....	(NA)	76	56	14	15	7	3	(NA)	3
Prime movers.....	(NA)	4,653	9,812	1,963	2,241	2,731	909	(NA)	320
Electric motors driven by purchased energy.....	(NA)	2,979	3,839	473	4,169	110	10	(NA)	(NA)
Horsepower rating of electric motors driven by energy generated at establishments reported.....	(NA)	160	100	638	552	490	(NA)	(NA)	(NA)
Energy used.....million kwh equivalent..	(NA)	(²⁰)	(²⁰)	44	69	(NA)	(NA)	(NA)	(NA)
Coal.....1,000 short tons..	(NA)	(²⁰)	(²⁰)	4	8	(NA)	(NA)	(NA)	(NA)
Fuel oils.....1,000 barrels..	(NA)	(²⁰)	(²⁰)	7	2	(NA)	(NA)	(NA)	(NA)
Gas (natural and manufactured).....million cu. ft..	(NA)	(²⁰)	(²⁰)	...	...	(NA)	(NA)	(NA)	(NA)
Electric energy purchased.....million kwh..	(NA)	(²⁰)	(²⁰)	1	(NA)	(NA)	(NA)	(NA)	(NA)
Electric energy generated and used.....do....	(NA)	(²⁰)	(²⁰)	1	(NA)	(NA)	(NA)	(NA)	(NA)

¹For 1939, based on a retabulation of the data for that year; figures for pumice and pumicite establishments were included in the statistics for the "Natural Abrasives" industry in 1939 tabulations. For 1929, 7 pumice and pumicite establishments were reported, but separate statistics for these operations are not available. For 1919 and years prior to 1909, the number of such establishments and separate statistics for them are not available. For 1902, data for pumice establishments are included with those for diatomite.

²For 1929, 10 establishments in the diatomite subindustry were reported, but separate statistics for them are not available. For 1919, no separate statistics for such establishments are available. For 1902, the figures shown include data for pumice and pumicite and tripoli establishments.

³For 1954, represents the following establishments: vermiculite 6, greensand 4, graphite 2, natural gem stones 3, calcite 1, and 4 nonproducing operations searching for nonmetallic minerals unspecified by type. For 1939, represents for vermiculite, 7 mines and 5 plants; greensand, 3 mines and 4 plants; graphite, 2 mines and 1 plant; and Iceland spar, 1 mine and 1 plant. For 1919, figures other than number of companies, mines, and plants include data for 2 lithium minerals mines which are classified in the "Chemical and fertilizer mineral mining, n.e.c." industry and 1 pinite mine which is classified in the "Clay, ceramic, and refractory minerals, n.e.c." industry. For 1929, 1 vermiculite and 5 graphite establishments were reported but separate statistics for these operations are not available. For 1919, represents graphite establishments only; no establishments reported were primarily engaged in producing other minerals of these types. For 1909, represents 24 graphite establishments and 30 precious stones establishments. For 1902, represents 28 graphite mines and 46 precious stones mines. (The 1902 report, however, showed 460 operators, including in the latter figure a count of persons who found precious stones "by accident," in prospecting for, operating, or developing mines of other minerals; or in the working of gravels containing gold, monazite, etc.). For 1889, represents graphite and precious stones. For 1880, represents 3 graphite mines and 1 "mineral soap" operation.

⁴For 1939, figures other than number of companies, mines, and plants include data for 2 lithium mines which are classified in the "Chemical and fertilizer mineral mining, n.e.c.," industry. For 1902, excludes data for the peat industry, but includes data for tripoli establishments which are classified in the "Natural abrasives, except sand, n.e.c.," industry. For 1889, excludes data for the peat and pumice and pumicite industries.

Footnotes continued on next page

Footnotes for table 1--Continued

⁵Excludes nonproducing establishments for which separate figures are not available as follows: 1939, peat, 1 mine and 1 preparation plant; 1929, gypsum 1, mica 1, and asbestos 1; 1919, mica 1; and 1909, native asphalt and bitumens 2, peat 2, and diatomite 1.

⁶Represents the sum of the figures shown for the separate industries or subindustries and probably includes some duplication due to the same company operating in more than one industry or subindustry.

⁷Represents the product indicated by the name of the industry or subindustry.

⁸For 1954, represents gross value of shipments and contains some duplication due to the inclusion of shipments of crude minerals to other establishments in the same industry for preparation. For all miscellaneous nonmetallic minerals (except fuels) industries combined this duplication amounted to only about one percent and was 2 percent or less for each industry in this group.

⁹Excludes the value of secondary products and services, if any.

¹⁰Figures for average number employed were reduced to a 300-day basis for establishments which operated for a shorter period.

¹¹Represents the average number employed during the time the mines were active.

¹²For graphite and precious stones operations, "All other employees" are included in the figures for "Production and development workers".

¹³Excludes man-hours worked on inactive days. These are not available by department.

¹⁴Only data for total man-hours at mines were requested in the manufactures reports. These were tabulated separately for underground and open-pit mines. Man-hours for preparation of the minerals, if any, were probably included with other manufacturing plant man-hours.

¹⁵Not computed since the number of proprietors and firm members performing manual labor exceeds one-third of the number of production and development workers.

¹⁶Excludes the cost of minerals received from other establishments for preparation, and for 1880 and earlier years, the cost of contract work.

¹⁷Data on minerals received for preparation were requested only for 1954, 1919, and 1909.

¹⁸For 1954, includes data for products purchased for resale without further processing, amounting to \$43 thousand for all miscellaneous nonmetallic minerals (except fuels) industries combined; data were requested on such products only for 1954.

¹⁹The cost of contract work is included with the cost of supplies.

²⁰Not tabulated by subindustry.

²¹Unit of quantity, short tons.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 2A.—COMPARATIVE STATISTICS FOR GYPSUM MINING OPERATIONS, BY GEOGRAPHIC DIVISIONS AND STATES: 1954, 1939, AND 1929

(For explanation of column captions, see INTRODUCTION. For 1929, excludes nonproducing operations)

Geographic division, State, and year	Number of mines	Production of gypsum (1,000 short tons)	Shipments		Man-hours worked by production and development workers (1,000)	Designated principal expenses (\$1,000)	
			Quantity of gypsum (1,000 short tons)	Value of all products and services (\$1,000)		Man-hours worked by production and development workers —	Cost of supplies, minerals received for preparation, fuel, and contract work ¹
United States, total:							
1954.....	61	9,057	3,439	10,319	2,984	5,572	4,247
1939.....	59	3,302	(NA)	4,569	2,466	1,640	813
1929.....	63	5,152	(NA)	5,740	(NA)	2,628	1,222
East: ²							
1954.....	17	4,686	1,658	4,789	1,763	3,532	2,562
1939.....	27	³ 1,781	(NA)	³ 2,442	³ 1,198	³ 885	³ 373
1929.....	32	⁴ 3,501	(NA)	⁴ 4,012	⁴ (NA)	⁴ 1,933	⁴ 814
South, total:							
1954.....	12	2,077	564	1,858	760	1,186	705
1939.....	13	648	(NA)	773	529	272	154
Texas:							
1954.....	6	1,244	167	511	201	354	233
1939.....	8	323	(NA)	284	144	77	51
1929.....	6	579	(NA)	498	(NA)	124	102
Virginia, Arkansas, Louisiana, and Oklahoma: ³							
1954.....	6	833	397	1,347	559	832	472
1939.....	5	325	(NA)	489	385	195	103
1929.....	6	⁴ 369	(NA)	⁴ 298	(NA)	⁴ 152	⁴ 66
Mountain, total:							
1954.....	19	1,120	583	2,117	280	531	493
1939.....	13	³ 647	(NA)	³ 573	³ 374	³ 576	³ 186
Colorado:							
1954.....	4	95	40	183	27	38	37
1939.....	2	(³)	(NA)	(³)	(³)	(³)	(³)
1929.....	3	28	(NA)	28	(NA)	14	6
Nevada:							
1954.....	3	659	490	1,687	151	314	303
1939.....	4	206	(NA)	403	146	99	101
1929.....	6	230	(NA)	367	(NA)	128	94
Montana, Idaho, Wyoming, New Mexico, Utah, and Arizona: ⁶							
1954.....	12	366	53	247	102	179	153
1939.....	7	442	(NA)	³ 594	³ 427	³ 275	³ 85
1929.....	8	⁴ 445	(NA)	⁴ 538	(NA)	⁴ 276	⁴ 141
Pacific, total: ⁷							
1954.....	13	1,174	634	1,555	181	323	487
1939.....	6	226	(NA)	357	165	109	101
1929.....	2	(⁴)	(NA)	(⁴)	(NA)	(⁴)	(⁴)

¹The cost of minerals received for preparation is excluded for 1939 and 1929.²For 1954, represents New York (5 mines), Ohio (2 mines), Michigan (4 mines), Iowa (4 mines), and Kansas (2 mines). For 1939, represents New York (9 mines), Ohio (2 mines), Michigan (5 mines), Iowa (8 mines), South Dakota (1 mine), and Kansas (2 mines). For 1929, represents New York (11 mines), Ohio (3 mines), Michigan (7 mines), Iowa (8 mines), South Dakota (1 mine), and Kansas (2 mines).³Figures for Ohio, South Dakota, Kansas, and Colorado are included with those for Montana, Wyoming, and Utah.⁴Figures for South Dakota, Virginia, and California are included with those for Montana, Wyoming, Utah, and Arizona.⁵For 1954, represents Virginia (1 mine), Arkansas (1 mine), Louisiana (1 mine), and Oklahoma (3 mines). For 1939, represents Virginia (2 mines) and Oklahoma (3 mines). For 1929, represents Virginia (2 mines) and Oklahoma (4 mines).⁶For 1954, represents Montana (2 mines), Idaho (1 mine), Wyoming (3 mines), New Mexico (1 mine), Arizona (3 mines), and Utah (2 mines). For 1939 represents Montana (2 mines), Wyoming (1 mine), and Utah (4 mines). For 1929, represents Montana (2 mines), Wyoming (2 mines), Arizona (1 mine), and Utah (3 mines).⁷For 1954, represents Washington (2 mines) and California (11 mines). In 1939 represents California only.

Table 2B.—COMPARATIVE STATISTICS FOR THE MICA; TALC, SOAPSTONE, AND PYROPHYLLITE; AND PEAT INDUSTRIES,
BY GEOGRAPHIC DIVISIONS AND STATES: 1954, 1939, 1929, AND 1919

(For explanation of column captions, see INTRODUCTION. For 1939 and earlier years excludes nonproducing operations)

Industry, geographic division, State, and year	Number of mines	Quantity of primary products ¹ (Short tons)	Value of ship- ments (\$1,000)	Number of employees		Designated principal expenses (\$1,000)						Aggregate horse- power rating of power equipment
				Produc- tion and develop- ment workers	All other em- ployees	Wages of produc- tion and develop- ment workers	Salaries of all other em- ployees	Supplies and minerals received for prep- aration	Fuel	Pur- chased electric energy	Contract work	
MICA INDUSTRY												
United States, total:												
1954.....	510	59,364	4,126	668	42	1,255	87	598	151	132	347	17,092
1939.....	21	20,731	327	190	20	118	20	25	10	16	...	1,696
1929.....	32	12,130	516	226	23	195	58	65	18	18	...	1,721
1919.....	69	(NA)	607	448	40	288	47	108	21	2	7	803
New Hampshire: ²												
1954.....	16	86	218	48	1	93	1	40	6	...	...	1,300
1929.....	6	2,866	223	82	7	83	16	44	9	4	...	458
1919.....	5	(NA)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
North Carolina:												
1954.....	393	42,927	3,093	521	35	904	58	271	113	98	140	11,626
1939.....	11	12,606	185	111	12	55	9	14	4	14	...	843
1929.....	15	7,534	224	102	14	70	40	12	7	14	...	1,023
1919.....	49	(NA)	389	274	23	160	26	69	18	...	...	510
Other States:												
1954.....	101	16,351	815	99	6	258	28	287	32	34	207	4,166
1939.....	10	8,125	142	79	4	63	7	11	6	2	...	853
1929.....	11	1,730	69	42	2	42	2	9	3	...	...	240
1919.....	15	(NA)	3218	3174	317	3128	321	339	33	32	37	3293
TALC, SOAPSTONE, AND PYRO- PHYLLITE INDUSTRY												
United States, total:												
1954.....	75	610,019	11,819	1,297	174	4,141	799	1,927	238	467	412	36,349
1939.....	38	253,992	3,269	970	167	807	382	619	45	162	2	12,049
1929.....	28	243,075	2,688	550	82	615	217	531	29	99	17	10,530
1919.....	30	(NA)	2,302	958	103	835	215	345	109	46	53	7,053
North:												
1954.....	7	228,080	4,760	367	61	1,661	219	659	113	323	197	10,921
1939.....	10	4153,134	42,164	4601	4110	4501	4275	4399	424	4113	...	47,143
1929.....	10	3150,559	31,763	3211	347	3312	3135	3455	310	379	39	38,127
1919.....	15	(NA)	6663	6195	630	6215	668	659	633	628	619	62,073
South, total:												
1954.....	18	227,265	5,177	787	86	1,906	386	951	87	142	120	17,292
1939.....	15	465,536	4551	4248	432	4159	453	495	412	437	42	43,009
1929.....	11	792,516	7782	7301	730	7252	772	759	715	720	78	72,253
1919.....	11	(NA)	61,639	6763	673	6620	6147	6286	676	618	634	64,980
North Carolina:												
1954.....	8	107,695	1,960	204	23	507	132	393	32	37	83	4,942
1939.....	5	38,173	322	136	17	89	30	58	6	25	...	1,511
1929.....	3	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	...	(8)
1919.....	3	(NA)	72	74	7	41	8	16	2	2	1	236
Maryland and Virginia:												
1954.....	4	43,821	2,321	474	42	1,149	170	381	45	67	20	8,205
1939.....	5	48,016	461	426	42	420	44	47	43	44	(4)	4546
1929.....	5	856,263	8589	8200	819	8171	852	822	89	817	...	81,578
1919.....	6	(NA)	61,567	6689	666	6579	6139	6270	674	616	633	64,744
Georgia, Arkansas, and Texas:												
1954.....	6	75,749	896	109	21	250	84	177	10	38	17	4,145
1939.....	5	19,347	168	86	13	50	19	30	3	8	2	952
1929.....	3	736,253	193	101	11	81	20	37	6	3	8	675
1919.....	2	(NA)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)
West, total:												
1954.....	50	154,674	1,882	143	27	574	194	317	38	2	95	8,136
1939.....	13	35,322	554	121	25	147	54	125	9	12	...	1,897
1929.....	7	(9)	143	38	5	51	10	17	4	...	...	150
1919.....	4	(NA)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)
California:												
1954.....	33	134,713	1,402	106	26	455	188	161	29	...	83	6,075
1939.....	10	29,323	514	98	23	127	52	124	8	12	...	1,595
1929.....	7	(9)	143	38	5	51	10	17	4	...	...	150
1919.....	3	(NA)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)
Montana, Nevada, and Washington:												
1954.....	17	19,961	480	37	1	119	6	156	9	2	12	2,061
1939.....	3	5,999	40	23	2	20	2	1	1	...	...	302
1919.....	1	(NA)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)

See footnotes at end of table.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 2B.—COMPARATIVE STATISTICS FOR THE MICA; TALC, SOAPSTONE, AND PYROPHYLLITE; AND PEAT INDUSTRIES,
BY GEOGRAPHIC DIVISIONS AND STATES: 1954, 1939, 1929, AND 1919—Continued

(For explanation of column captions, see INTRODUCTION. For 1939 and earlier years excludes nonproducing operations)

Industry, geographic division, State, and year	Number of mines	Quantity of primary products ¹ (short tons)	Value of ship- ments (\$1,000)	Number of employees		Designated principal expenses (\$1,000)						Aggregate horse- power rating of power equipment	
				Produc- tion and develop- ment workers	All other em- ployees	Wages of produc- tion and develop- ment workers	Salaries of all other em- ployees	Supplies and minerals received for prep- aration	Fuel	Pur- chased electric energy	Contract work		
PEAT INDUSTRY													
United States, total													
1954.....	87	248,039	2,326	321	32	829	111	321	174	31	46	23,599	
1939.....	25	55,556	378	157	27	101	43	21	15	4	...	2,759	
Maine													
1954.....	4	2,348	100	32	1	49	1	32	2	...	...	770
1939.....	4	1,264	27	32	4	12	4	2	5	...	...	132
Other States													
1954.....	83	245,691	2,226	289	31	780	110	289	172	31	46	22,829	
1939.....	21	54,292	351	125	23	89	39	19	10	4	...	2,627	

NA Not applicable.

¹Figures for 1954 represents net shipments; figures for earlier years represent production. For the mica industry represents for 1954 and 1929 sheet, scrap, and ground mica; for 1939, represents sheet and scrap mica; for the talc, soapstone, and pyrophyllite industry represents net shipments of talc, soapstone, and pyrophyllite; for the peat industry, represents peat.

²No establishments in the mica industry were reported for 1939.

³New Hampshire is included with Other States.

⁴Figures for the 2 mines in Virginia are included with those for the North.

⁵Figures for 1 mine in Pennsylvania and 1 in Wisconsin are included with figures for Georgia.

⁶Figures for 1 mine in Massachusetts, 5 in New York, 2 in Pennsylvania, 2 in Georgia, 3 in California, and 1 in Washington are included with those for Maryland and Virginia.

⁷Includes figures for Pennsylvania, Wisconsin, and California.

⁸Figures for North Carolina are included with those for Maryland and Virginia.

⁹Included with Georgia.

Table 3.—DETAILED STATISTICS FOR THE MISCELLANEOUS NONMETALLIC MINERALS (EXCEPT FUELS) INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954
(For explanation of line captions, see INTRODUCTION)

Item	Gypsum industry				
	United States, total	East and South ¹	Mountain ²		Pacific ³
			Total	Colorado	
Number of operating companies.....	34	9	13	3	12
Number of establishments.....	37	10	14	3	13
Number of mines.....	34	9	14	3	11
Number of preparation plants.....	22	8	9	2	5
Production of primary products ²⁶.....1,000 short tons..	2,487	1,504	484	39	499
Value of shipments, total.....\$1,000...	6,631	3,957	1,664	179	1,010
Primary products ²⁶.....do....	6,613	3,957	1,664	179	1,010
All other products and services.....do....	18		...	...
Value added in mining.....do....	5,352	3,164	1,372	157	816
Number of persons engaged, total.....	470	306	99	15	65
Production and development workers.....	399	278	82	10	39
All other employees.....	50	25	10	2	15
Proprietors and firm members.....	21	3	7	3	11
Performing manual labor.....	7	...	2	1	5
Man-hours worked by production and development workers, total.....1,000..	926	663	174	16	89
At mines, total.....do....	588	381	138	11	69
Open-pit or quarry.....do....	467	280	126	11	61
Underground.....do....	95	86	9	...	...
Surface (including mine shops and yards).....do....	26	15	3	...	8
At preparation plants.....do....	338	282	36	5	20
Man-hours spent on development and exploration work (included above).....do....	8	...	3	...	5
Tons of primary products per man-hour ²⁶	2.69	2.27	2.78	2.44	5.61
Principal expenses designated below, total.....\$1,000..	3,159	2,024	697	48	438
Wages of production and development workers.....do....	1,567	1,082	339	21	146
Salaries of all other employees.....do....	285	138	62	4	85
Minerals received for preparation.....do....	924	567	...	...	30164
Supplies ²⁹.....do....			30235	18	
Fuel.....do....	171	80	61	5	43
Purchased electric energy.....do....	140	127	...	...
Contract work.....do....	72	30	(30)	...	(30)
Purchased machinery installed.....do....	2,395	2,056	237	(D)	102
Capital expenditures, total.....do....	2,423	2,067	241	(D)	115
Development and exploration of mineral property.....do....	13	6	7	(D)	18
Preparation plant construction.....do....	46	28		(D)	
Other construction.....do....	2	...	...	...	2
New machinery and equipment.....do....	402	110	223	(D)	69
Used plant and equipment.....do....	1,960	1,923	11	(D)	26
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	28,193	13,814	10,237	1,284	4,142
Per production worker.....	71	50	125	128	106
Prime movers.....	15,646	3,177	8,982	1,274	3,487
Electric motors driven by purchased energy.....	12,547	10,637	1,255	10	655
Horsepower rating of electric motors driven by energy generated and used at same establishment.....	55	...	55	...	...
Energy used.....million kwh equivalent..	85	51	23	6	11
Coal.....1,000 short tons..	(D)	(D)	...	...	...
Fuel oils.....1,000 barrels..	19	7	7	1	5
Gas (natural and manufactured).....million cu.ft..	(D)	...	(D)	(D)	...
Electric energy purchased.....million kwh..	12	11	1	...	...
Electric energy generated and used.....do....	...	...	...	...	...
Water intake, including mine water.....million gallons..	131	(D)	(D)	...	...
Per production worker.....do....	0.33	(D)	(D)	...	...

See footnotes at end of table.

Table 3.—DETAILED STATISTICS FOR THE MISCELLANEOUS NONMETALLIC MINERALS (EXCEPT FUELS) INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Con.

(For explanation of line captions, see INTRODUCTION)

Item	Mica industry ^{3,2}							Native asphalt and bitumens industry, United States ⁸
	United States, total ⁴	East		South			West ⁷	
		Total ⁵	New Hampshire	Total ⁶	North Carolina	Georgia		
Number of operating companies.....	446	46	14	385	335	30	14	9
Number of establishments.....	498	50	17	434	379	31	14	12
Number of mines.....	510	48	16	448	393	31	14	12
Number of preparation plants.....	444	20	13	416	367	26	8	8
Production of primary products ^{2,6}	59,068	1,121	86	51,058	42,629	8,374	6,889	1,417
{ short tons for mica.....								
{ 1,000 short tons for native asphalt and bitumens.....								
Value of shipments, total.....\$1,000..	4,126	430	218	3,530	3,093	397	166	6,424
Primary products ^{2,6}.....do....	4,083	430	218	3,530	3,093	397	166	6,408
All other products and services.....do....	43							
Value added in mining.....do....	3,284	359	175	2,731	2,548	146	194	4,857
Number of persons engaged, total.....	1,259	128	66	1,097	995	69	34	563
Production and development workers.....	668	76	48	569	521	38	23	451
All other employees.....do....	42	3	1	36	35	1	3	100
Proprietors and firm members.....do....	549	49	17	492	439	30	8	12
Performing manual labor.....do....	432	35	10	389	346	24	8	3
Men-hours worked by production and development workers, total.....1,000..	1,196	132	86	1,020	905	101	44	987
At mines, total.....do....	594	72	36	504	442	52	18	620
Open-pit or quarry.....do....	276	53	25	213	190	18	10	244
Underground.....do....	297	18	11	271	234	33	8	147
Surface (including mine shops and yards).....do....	21	1	...	20	18	1	...	229
At preparation plants.....do....	602	60	50	516	463	49	26	367
Men-hours spent on development and exploration work (included above).....do....	40	6	2	31	26	3	3	21
Tons of primary products per man-hour ^{2,6}	(^{2,8})	(^{2,8})	0.001	(^{2,8})	(^{2,8})	(^{2,8})	(^{2,8})	1.44
Principal expenses designated below, total.....\$1,000..	2,570	258	140	2,039	1,610	405	273	3,790
Wages of production and development workers.....do....	1,255	161	93	1,023	904	107	71	1,443
Salaries of all other employees.....do....	87	14	1	65	58	7	8	704
Minerals received for preparation.....do....	34	3069	40	30693	297	30244	...	...
Supplies ^{2,9}.....do....	564							
Fuel.....do....	151	14	{ 6 }	258	{ 113 }	{ 47 }	11	{ 137 }
Purchased electric energy.....do....	132							
Contract work.....do....	347	(³⁰)	...	(³⁰)	140	(³⁰)	165	170
Purchased machinery installed.....do....	474	14	4	256	223	32	204	476
Capital expenditures, total.....do....	860	26	7	408	326	72	426	552
Development and exploration of mineral property.....do....	255	12	3	141	92	41	102	114
Preparation plant construction.....do....	176	...	...	54	49	3	122	23
Other construction.....do....	12	...	...	5	3	2	7	1
New machinery and equipment.....do....	321	4	3	132	129	3	185	402
Used plant and equipment.....do....	96	10	1	76	53	23	10	12
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	17,092	2,272	1,300	13,940	11,626	2,122	880	31,340
Per production worker.....do....	(^{2,8})	(^{2,8})	27	(^{2,8})	(^{2,8})	(^{2,8})	(^{2,8})	69
Prime movers.....do....	12,709	2,023	1,195	10,047	8,678	1,212	639	22,510
Electric motors driven by purchased energy.....do....	4,383	249	105	3,893	2,948	910	241	8,830
Horsepower rating of electric motors driven by energy generated and used at same establishment.....do....	13	...	...	13	13	...	...	1,858
Energy used.....million kwh equivalent..	58	3	2	54	43	11	1	66
Coal.....1,000 short tons..	...	...	...	...	...	...	...	2
Fuel oils.....1,000 barrels..	17	...	...	17	16	1	...	17
Gas (natural and manufactured).....million cu. ft..	(D)	...	...	(D)	...	(D)	...	(D)
Electric energy purchased.....million kwh..	9	...	...	9	7	2	...	5
Electric energy generated and used.....do....	...	...	...	...	...	...	...	(D)
Water intake, including mine water.....million gallons.	1,022	2	2	1,019	(D)	(D)	1	38
Per production worker.....do....	(^{2,8})	(^{2,8})	0.04	(^{2,8})	(D)	(D)	(^{2,8})	0.08

See footnotes at end of table.

Table 3.—DETAILED STATISTICS FOR THE MISCELLANEOUS NONMETALLIC MINERALS (EXCEPT FUELS) INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Con.

(For explanation of line captions, see INTRODUCTION)

Item	Pumice and pumicite industry						
	United States, total ⁹	West North Central and West South Central ¹⁰	Mountain		Pacific		
			Total ¹¹	New Mexico	Total ¹²	Oregon	California
Number of operating companies.....	73	8	28	14	36	6	27
Number of establishments.....	75	8	30	14	37	6	27
Number of mines.....	75	8	30	14	37	6	27
Number of preparation plants.....	47	7	16	10	24	5	17
Production of primary products ²⁶.....1,000 short tons..	1,818	14	904	477	900	109	783
Value of shipments, total.....\$1,000..	3,393	213	1,685	1,043	1,495	277	1,200
Primary products ²⁶.....do....	3,324	213	1,685	1,043	1,495	277	1,200
All other products and services.....do....	69	...					
Value added in mining.....do....	2,741	118	1,414	850	1,209	236	957
Number of persons engaged, total.....	326	32	119	74	175	26	142
Production and development workers.....	223	23	85	53	115	18	95
All other employees.....	44	5	13	11	26	3	23
Proprietors and firm members.....	59	4	21	10	34	5	24
Performing manual labor.....	35	1	12	4	22	2	16
Man-hours worked by production and development workers, total.....1,000..	440	55	168	106	217	33	182
At mines, total.....do....	169	5	57	36	107	14	92
Open-pit or quarry.....do....	165	5	55	35	105	13	91
Underground.....do....	...	...	...	...	...	...	...
Surface (including mine shops and yards).....do....	4	...	2	1	2	1	1
At preparation plants.....do....	271	50	111	70	110	19	90
Man-hours spent on development and exploration work (included above).....do....	8	...	6	2	2	...	2
Tons of primary products per man-hour ²⁶	4.13	0.25	5.38	4.41	4.15	3.30	4.30
Principal expenses designated below, total.....\$1,000..	1,731	174	658	408	899	140	753
Wages of production and development workers.....do....	748	53	281	169	414	71	340
Salaries of all other employees.....do....	214	26	47	38	141	4	137
Minerals received for preparation.....do....	...	...	...	...	...	...	...
Supplies ²⁹.....do....	334	77	135	³⁰ 152	140	24	³⁰ 223
Fuel.....do....	119		56	38	53		40
Purchased electric energy.....do....	40		16	11	16		13
Contract work.....do....	276		123	(³⁰)	135		(³⁰)
Purchased machinery installed.....do....	298		77	37	166		38
Capital expenditures, total.....do....	415	55	136	45	224	150	71
Development and exploration of mineral property.....do....	32	...	27	11	5	2	2
Preparation plant construction.....do....	75	...	41	4	34	3	31
Other construction.....do....	23	...	2	2	21	20	1
New machinery and equipment.....do....	99	...	36	25	63	39	22
Used plant and equipment.....do....	186	55	30	3	101	66	15
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	25,717	1,088	10,651	5,000	13,978	3,979	9,324
Per production worker.....	115	47	125	94	122	221	98
Prime movers.....	22,189	644	8,874	4,014	12,671	3,791	8,205
Electric motors driven by purchased energy.....	3,528	444	1,777	986	1,307	188	1,119
Horsepower rating of electric motors driven by energy generated and used at same establishment.....	210	...	...	...	210	210	...
Energy used.....million kwh equivalent..	56	9	24	19	23	6	16
Coal.....1,000 short tons..	...	...	...	...	...	...	...
Fuel oils.....1,000 barrels..	8	...	3	2	5	...	5
Gas (natural and manufactured).....million cu. ft..	72	20	37	37	15	15	...
Electric energy purchased.....million kwh..	2	1	...	...	1	...	1
Electric energy generated and used.....do....	...	...	...	...	...	...	...
Water intake, including mine water.....million gallons..	27	...	...	...	27	...	27
Per production worker.....do....	0.12	...	...	...	0.23	...	0.28

See footnotes at end of table.

Table 3.—DETAILED STATISTICS FOR THE MISCELLANEOUS NONMETALLIC MINERALS (EXCEPT FUELS) INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Con.

(For explanation of line captions, see INTRODUCTION)

Item	Talc, soapstone, and pyrophyllite industry						
	United States, total	North-east ¹³	South			West	
			Total ¹⁴	North Carolina	Maryland and Virginia	Total ¹⁵	California
Number of operating companies.....	50	6	15	6	4	31	20
Number of establishments.....	68	7	17	8	4	44	27
Number of mines.....	75	7	18	8	4	50	33
Number of preparation plants.....	39	6	16	7	4	17	8
Production of primary products ²⁶.....1,000 short tons..	610	228	227	108	44	155	135
Value of shipments, total.....\$1,000..	11,819	4,760	5,177	1,960	2,321	1,882	1,402
Primary products ²⁶.....do....	11,819	4,760	5,177	1,960	2,321	1,882	1,402
All other products and services.....do....	...	...	...	...	...	...	...
Value added in mining.....do....	9,486	3,959	4,056	1,425	1,990	1,471	1,133
Number of persons engaged, total.....	1,501	428	878	231	516	195	144
Production and development workers.....	1,297	367	787	204	474	143	106
All other employees.....	174	61	86	23	42	27	26
Proprietors and firm members.....	30	...	5	4	...	25	12
Performing manual labor.....	14	...	...	...	...	14	5
Men-hours worked by production and development workers, total.....1,000..	2,778	824	1,662	448	973	292	218
At mines, total.....do....	1,134	377	506	220	206	251	197
Open-pit or quarry.....do....	540	209	293	85	193	38	10
Underground.....do....	506	143	176	119	...	187	170
Surface (including mine shops and yards).....do....	88	25	37	16	13	26	17
At preparation plants.....do....	1,644	447	1,156	228	767	41	21
Man-hours spent on development and exploration work (included above).....do....	138	35	68	6	62	35	26
Tons of primary products per man-hour ²⁶	0.22	0.28	0.14	0.24	0.05	0.53	0.62
Principal expenses designated below, total.....\$1,000..	7,984	3,172	3,592	1,184	1,832	1,220	916
Wages of production and development workers.....do....	4,141	1,661	1,906	507	1,149	574	455
Salaries of all other employees.....do....	799	219	386	132	170	194	188
Minerals received for preparation.....do....	256	...	...	...	...	...	...
Supplies ²⁹.....do....	1,671	30856 }	951	393	30401 }	317	161
Fuel.....do....	238	113 }	229	32	45 }	40	29
Purchased electric energy.....do....	467	323 }	...	37	67 }	...	...
Contract work.....do....	412	(30)	120	83	(30)	95	83
Purchased machinery installed.....do....	486	226	177	80	65	83	57
Capital expenditures, total.....do....	1,197	717	356	90	247	124	61
Development and exploration of mineral property.....do....	300	100	163	6	157	37	11
Preparation plant construction.....do....	391	343	34	4	28	14	...
Other construction.....do....	62	50	10	...	10	2	2
New machinery and equipment.....do....	407	224	131	75	41	52	37
Used plant and equipment.....do....	37	...	18	5	11	19	11
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	36,349	10,921	17,292	4,942	8,205	8,136	6,075
Per production worker.....	28	30	22	24	17	57	57
Prime movers.....	20,362	3,111	9,381	2,185	5,218	7,870	6,075
Electric motors driven by purchased energy.....	15,987	7,810	7,911	2,757	2,987	266	...
Horsepower rating of electric motors driven by energy generated and used at same establishment.....	1,421	...	1,421	...	1,421	...	...
Energy used.....million kwh equivalent..	133	71	53	13	31	9	7
Coal.....1,000 short tons..	2	...	2	...	2	...	...
Fuel oils.....1,000 barrels..	36	23	12	3	8	1	1
Gas (natural and manufactured).....million cu. ft..	(D)	...	1	...	...	...	...
Electric energy purchased.....million kwh..	40	31	9	3	4	...	...
Electric energy generated and used.....do....	1	...	1	...	1	...	...
Water intake, including mine waters.....million gallons..	324	117	(D)	(D)	(D)	(D)	(D)
Per production worker.....do....	0.25	0.32	(D)	(D)	(D)	(D)	(D)

See footnotes at end of table.

Table 3.—DETAILED STATISTICS FOR THE MISCELLANEOUS NONMETALLIC MINERALS (EXCEPT FUELS) INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Con.

(For explanation of line captions, see INTRODUCTION)

Item	Peat industry											
	United States, total	New England		Middle Atlantic		North Central		South		West		
		Total ¹⁶	Maine	Total ¹⁷	Penn-syl- vania	Total ¹⁸	Ohio	Total ¹⁹	Flor- ida	Total ²⁰	Wash- ington	
Number of operating companies.....	86	10	4	11	5	27	12	13	8	25	19	
Number of establishments.....	88	10	4	11	5	29	12	13	8	25	19	
Number of mines.....	87	10	4	11	5	28	12	13	8	25	19	
Number of preparation plants.....	68	7	4	10	5	28	12	13	8	10	5	
Production of primary products ²⁶.....1,000 short tons..	249	9	2	38	16	96	32	45	37	61	43	
Value of shipments, total.....\$1,000..	2,326	136	100	377	142	1,217	391	251	168	345	154	
Primary products ²⁶.....do....	2,307	136	{ ...	377	142	1,217	{ 391	251	168	345	154	
All other products and services.....do....	19			...	...			...	...
Value added in mining.....do....	1,800	105	77	306	117	888	294	202	136	299	140	
Number of persons engaged, total.....	422	44	33	69	24	178	61	76	51	55	34	
Production and development workers.....	321	35	32	54	22	142	43	62	43	28	12	
All other employees.....	32	3	1	9	...	11	7	8	4	1	1	
Proprietors and firm members.....	69	6	...	6	2	25	11	6	4	26	21	
Performing manual labor.....	42	3	...	6	2	14	10	2	1	17	17	
Man-hours worked by production and development workers, total.....1,000..	637	54	46	110	45	314	86	107	78	52	22	
At mines, total.....do....	431	29	22	83	32	214	46	74	53	31	16	
Open-pit or quarry.....do....	407	15	12	76	32	214	46	74	53	28	16	
Underground.....do....	...	...	...	...	...	...	...	...	...	...	...
Surface (including mine shops and yards).....do....	24	14	10	7	...	...	...	...	...	3	...
At preparation plants.....do....	206	25	24	27	13	100	40	33	25	21	6	
Man-hours spent on development and exploration work (included above).....do....	11	...	...	11	...	...	...	...	...	...	...
Tons of primary products per man-hour ²⁶	0.39	0.16	0.05	0.35	0.35	0.31	0.37	0.42	0.48	(²⁸)	(²⁸)	
Principal expenses designated below, total.....\$1,000..	1,512	104	84	265	78	786	237	195	124	162	79	
Wages of production and development workers.....do....	829	55	49	155	64	418	110	114	81	87	35	
Salaries of all other employees.....do....	111	7	1	39	...	39	30	23	10	3	3	
Minerals received for preparation.....do....	...	...	...	...	...	...	...	...	...	...	...
Supplies ²⁹.....do....	321	36	32	38	1	202	31	25	9	20	4	
Fuel.....do....	174	6	2	25	13	{ 99	53	27	20	21	17	
Purchased electric energy.....do....	31				26	11		1
Contract work.....do....	46				8	...		2	5	4	31	20
Purchased machinery installed.....do....	159	16	9	29	18	31	17	22	9	61	33	
Capital expenditures, total.....do....	205	27	20	29	7	31	17	31	10	87	60	
Development and exploration of mineral property.....do....	34	...	...	12	...	...	...	9	...	13	3
Preparation plant construction.....do....	15	11	11	1	...	...	...	...	...	3	...
Other construction.....do....	28	...	...	1	...	...	...	3	3	24	24
New machinery and equipment.....do....	104	16	9	12	7	30	16	19	7	27	22	
Used plant and equipment.....do....	24	...	...	3	...	1	1	...	...	20	11
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	23,599	1,100	770	4,055	2,306	5,954	1,734	4,893	3,518	7,597	5,817	
Per production worker.....	74	31	24	75	105	42	40	79	82	(²⁸)	(²⁸)	
Prime movers.....	22,099	811	481	3,752	2,218	5,333	1,401	4,740	3,430	7,463	5,723	
Electric motors driven by purchased energy.....	1,500	289	289	303	88	621	333	153	88	134	94	
Horsepower rating of electric motors driven by energy generated and used at same establishment.....	...	...	...	...	...	...	...	...	...	...	...
Energy used.....million kwh equivalent..	87	1	...	7	5	67	42	7	5	5	4	
Coal.....1,000 short tons..	6	...	...	...	...	6	4	...	...	...	...
Fuel oils.....1,000 barrels..	6	...	...	1	1	5	5	...	...	...	...
Gas (natural and manufactured).....million cu. ft..	(D)	...	...	(D)	(D)	...	...	...	...	...	...
Electric energy purchased.....million kwh..	2	...	...	...	...	2	1	...	...	...	...
Electric energy generated and used.....do....	...	...	...	...	...	...	...	...	...	...	...
Water intake, including mine water.....million gallons..	...	...	...	...	...	...	...	...	...	...	...
Per production worker.....do....	...	...	...	...	...	...	...	...	...	...	...

See footnotes at end of table.

Table 3.—DETAILED STATISTICS FOR THE MISCELLANEOUS NONMETALLIC MINERALS

(For explanation of line

Item	Vermiculite and Nonmetallic minerals, n.e.c., industries			
	United States, total	By geographic divisions		
		East and South	Mountain	Pacific
1 Number of operating companies.....	63	16	32	17
2 Number of establishments.....	70	16	35	19
3 Number of mines.....	75	21	35	19
4 Number of preparation plants.....	57	12	28	17
5 Production of primary products ²⁶	xxx	xxx	xxx	xxx
<div style="display: flex; align-items: center;"> <div style="flex: 1;"> <div style="font-size: 2em; margin-right: 10px;">}</div> <div> short tons for asbestos..... 1,000 short tons for diatomite and perlite..... </div> </div> </div>				
6 Value of shipments, total.....\$1,000..	24,860	5,157	6,342	13,361
7 Primary products ²⁶.....do....	24,698	5,157	6,342	13,361
8 All other products and services.....do....	162			
9 Value added in mining.....do....	17,437	4,077	4,899	8,461
10 Number of persons engaged, total.....	1,801	506	487	808
11 Production and development workers.....	1,374	385	412	577
12 All other employees.....	394	118	53	223
13 Proprietors and firm members.....	33	3	22	8
14 Performing manual labor.....	14	2	8	4
15 Man-hours worked by production and development workers, total.....1,000..	2,703	754	868	1,081
16 At mines, total.....do....	849	313	360	176
17 Open-pit or quarry.....do....	576	259	146	171
18 Underground.....do....	176	5	171	...
19 Surface (including mine shops and yards).....do....	97	49	43	5
20 At preparation plants.....do....	1,854	441	508	905
21 Man-hours spent on development and exploration work (included above).....do....	58	25	33	...
22 Tons of primary products per man-hour ²⁶	xxx	xxx	xxx	xxx
23 Principal expenses designated below, total.....\$1,000..	15,259	2,993	3,798	8,468
24 Wages of production and development workers.....do....	5,258	1,260	1,588	2,410
25 Salaries of all other employees.....do....	2,062	631	309	1,122
26 Minerals received for preparation.....do....	265	626	1,093	3,195
27 Supplies ²⁹.....do....	4,649			
28 Fuel.....do....	967	151	310	506
29 Purchased electric energy.....do....	722	177	140	405
30 Contract work.....do....	1,336	148	358	830
31 Purchased machinery installed.....do....	1,441	201	323	917
32 Capital expenditures, total.....do....	1,957	223	781	953
33 Development and exploration of mineral property.....do....	109	6	95	8
34 Preparation plant construction.....do....	808	61	446	301
35 Other construction.....do....	12	...	12	...
36 New machinery and equipment.....do....	1,001	152	211	638
37 Used plant and equipment.....do....	27	4	17	6
38 Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	76,035	20,339	22,009	33,687
39 Per production worker.....	55	53	53	58
40 Prime movers.....	37,586	10,008	14,976	12,602
41 Electric motors driven by purchased energy.....	38,449	10,331	7,033	21,085
42 Horsepower rating of electric motors driven by energy generated and used at same establishment.....	472	...	312	160
43 Energy used.....million kwh equivalent..	620	121	98	401
44 Coal.....1,000 short tons..	...	...	...	...
45 Fuel oils.....1,000 barrels..	142	55	45	42
46 Gas (natural and manufactured).....million cu. ft..	898	...	...	898
47 Electric energy purchased.....million kwh..	73	16	11	46
48 Electric energy generated and used.....do....	1	...	1	...
49 Water intake, including mine water.....million gallons..	520	205	182	133
50 Per production worker.....do....	0.38	0.53	0.44	0.23

xxx Not applicable. (D) Withheld to avoid approximately disclosing figures of individual companies. ¹New York, 2 establishments; Michigan, 1 establishment; Virginia, 1 establishment; Arkansas, 1 establishment; Louisiana, 1 establishment; Oklahoma, 2 establishments; and Texas, 2 establishments. ²In addition to Colorado, Montana, 1 establishment; Idaho, 1 establishment; Wyoming, 3 establishments; New Mexico, 1 establishment; Arizona, 3 establishments; and Nevada, 2 establishments. ³Washington, 2 establishments; and California, 11 establishments. ⁴In addition, 1 nonproducing establishment in Alaska was reported. ⁵In addition to New Hampshire, Maine, 8 establishments; Connecticut, 3 establishments; Pennsylvania, 1 establishment; and South Dakota, 21 establishments. ⁶In addition to North Carolina and Georgia, Maryland, 1 establishment; Virginia, 3 establishments; South Carolina, 4 establishments; and Alabama, 16 establishments. ⁷Montana, 1 establishment; Idaho, 2 establishments; Colorado, 2 establishments; New Mexico, 6 establishments; Arizona, 2 establishments; and California, 1 establishment. ⁸Missouri, 1 establishment; Kentucky, 1 establishment; Alabama, 1 establishment; Oklahoma, 1 establishment; Texas, 2 establishments; and Utah, 6 establishments. ⁹In addition, 1 producing establishment in Hawaii was reported. ¹⁰Nebraska, 1 establishment; Kansas, 3 establishments; Oklahoma, 1 establishment; and Texas, 3 establishments. ¹¹In addition to New Mexico, Montana, 1 establishment; Idaho, 3 establishments; Wyoming, 2 establishments; Colorado, 2 establishments; Arizona, 4 establishments; Utah, 1 establishment; and Nevada, 3 establishments. ¹²In addition to Oregon and California, Washington, 4 establishments. ¹³Vermont, 4 establishments; and New York, 3 establishments. ¹⁴In addition to North Carolina, Maryland, 2 establishments; Virginia, 2 establishments; Georgia, 3 establishments; Arkansas, 1 establishment; and Texas, 1 establishment. ¹⁵In addition to California, Montana, 4 establishments; Nevada, 9 establishments; and Washington, 4 establishments.

(EXCEPT FUELS) INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Con.

captions, see INTRODUCTION)

Vermiculite and Nonmetallic minerals, n.e.c., industries--Continued						
Asbestos subindustry (United States) ²¹	Diatomite subindustry			Perlite subindustry (United States) ²⁴	Vermiculite industry and Greensand and other minerals subindustry (United States) ²⁵	
	United States, total	Mountain ²²	Pacific ²³			
17	11	4	8	18	20	1
17	14	4	10	19	20	2
22	14	4	10	18	21	3
12	14	4	10	18	13	4
49,310	27,437	2792	345	277	xxx	5
4,877	14,784	1,723	13,061	2,259	2,940	6
4,874	14,784	1,723	13,061	2,259	2,940	7
3		...				8
3,899	9,233	1,039	8,194	1,621	2,684	9
443	869	98	771	134	355	10
394	635	82	553	101	244	11
41	229	14	215	22	102	12
8	5	2	3	11	9	13
2	...	...	...	6	6	14
754	1,206	181	1,025	241	502	15
396	205	32	173	64	184	16
188	198	30	168	61	129	17
169	...	...	...	...	7	18
39	7	2	5	3	48	19
358	1,001	149	852	177	318	20
57	...	...	...	...	1	21
0.07	0.36	0.51	0.34	1.15	xxx	22
2,495	9,470	1,169	8,301	1,151	2,143	23
1,164	2,718	389	2,329	369	1,007	24
238	1,162	86	1,076	117	545	25
606	3,690	...	3,184	...	30405	26
153	590	506	...	30517	...	27
160	452	102	488	106	118	28
174	858	47	405	42	68	29
248	1,036	39	819	(30)	(30)	30
363	1,075	134	902	69	88	31
89	1	144	931	96	423	32
66	347	...	1	9	10	33
8	3	48	299	19	376	34
189	721	3	...	1	...	35
11	3	93	628	58	33	36
		...	3	9	4	37
16,845	37,907	5,353	32,554	7,632	13,651	38
43	60	65	59	76	56	39
7,957	15,164	3,610	11,554	4,653	9,812	40
8,888	22,743	1,743	21,000	2,979	3,839	41
212	...	...	...	160	100	42
(31)	(31)	(31)	(31)	(31)	(31)	43
						44
						45
						46
						47
						48
1	143	10	133	47	329	49
0.002	0.23	0.12	0.24	0.47	1.35	50

¹⁶In addition to Maine, New Hampshire, 1 establishment; Massachusetts, 2 establishments; and Connecticut, 3 establishments. ¹⁷In addition to Pennsylvania, New York, 3 establishments; and New Jersey, 3 establishments. ¹⁸In addition to Ohio, Indiana, 6 establishments; Illinois, 1 establishment; Michigan, 6 establishments; Minnesota, 1 establishment; and Iowa, 3 establishments. ¹⁹In addition to Florida, Georgia, 4 establishments; and Texas, 1 establishment. ²⁰In addition to Washington, California, 4 establishments. ²¹Vermont, 1 establishment; Virginia, 1 establishment; North Carolina, 2 establishments; Arizona, 11 establishments; and California, 2 establishments. ²²Arizona, 1 establishment; and Nevada, 3 establishments. ²³Washington, 2 establishments; Oregon, 1 establishment; and California, 7 establishments. ²⁴Texas, 1 establishment; Colorado, 1 establishment; New Mexico, 5 establishments; Arizona, 2 establishments; Nevada, 6 establishments; and California, 4 establishments. ²⁵Rhode Island, 1 establishment; New Jersey, 3 establishments; Maryland, 1 establishment; North Carolina, 1 establishment; South Carolina, 4 establishments; Texas, 1 establishment; Montana, 1 establishment; New Mexico, 1 establishment; Utah, 1 establishment; Nevada, 3 establishments; Washington, 1 establishment; Oregon, 1 establishment; and California, 1 establishment. ²⁶See table 1, footnote 7. ²⁷Represents crude and prepared diatomite and includes a small amount of crude diatomite, amounting to less than one percent of this total, produced by establishments in other industries. ²⁸See table 1, footnote 15. ²⁹Includes products purchased for resale without further processing. ³⁰See table 1, footnote 19. ³¹Not tabulated by subindustry. ³²Unit of quantity, short tons.

Table 4A.—DETAILED STATISTICS FOR MISCELLANEOUS NONMETALLIC MINERALS (EXCEPT FUELS) INDUSTRIES IN THE UNITED STATES, BY TYPE OF OPERATION: 1954

(For explanation of line captions, see INTRODUCTION)

Item	Gypsum industry			
	All types of establishments	Mines only ¹	Mines with preparation plants	
			Open-pit ²	Other ³
Number of operating companies.....	34	15	16	5
Number of establishments.....	37	16	16	5
Number of mines.....	34	15	16	3
Number of preparation plants.....	22	...	17	5
Production of primary products ¹⁰.....1,000 short tons..	2,487	615	1,703	169
Value of shipments.....\$1,000..	6,631	1,324	3,972	1,335
Value added in mining.....do....	5,352	1,139	3,192	1,021
Number of persons engaged, total.....	470	95	287	88
Production and development workers.....	399	71	251	77
All other employees.....	50	15	25	10
Proprietors and firm members.....	21	9	11	1
Performing manual labor.....	7	5	2	...
Man-hours worked by production and development workers, total.....1,000..	926	149	596	181
At mines, total.....do....	588	149	369	70
Open-pit or quarry.....do....	467	69	360	38
Underground.....do....	95	63	...	32
Surface (including mine shops and yards).....do....	26	17	9	...
At preparation plants.....do....	338	...	227	111
Man-hours spent on development and exploration work (included above).....do....	8	2	6	...
Tons of primary products per man-hour ¹⁰	2.69	4.13	2.86	0.93
Principal expenses designated below, total.....\$1,000..	3,159	568	1,969	622
Wages of production and development workers.....do....	1,567	287	1,013	267
Salaries of all other employees.....do....	285	94	150	41
Minerals received for preparation.....do....	924	...	...	197
Supplies ¹².....do....	171	108	619	...
Fuel.....do....	140	37	84	50
Purchased electric energy.....do....	72	9	87	44
Contract work.....do....	...	33	16	23
Purchased machinery installed.....do....	2,395	(D)	(D)	(D)
Capital expenditures, total.....do....	2,423	77	(D)	(D)
Development and exploration of mineral property.....do....	13	1	12	...
Preparation plant construction.....do....	46	...	(D)	(D)
Other construction.....do....	2	1	1	...
New machinery and equipment.....do....	402	64	(D)	(D)
Used plant and equipment.....do....	1,960	11	(D)	(D)
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	28,193	5,125	17,230	5,838
Per production worker.....	71	71	69	76
Prime movers.....	15,646	3,873	10,638	1,135
Electric motors driven by purchased energy.....	12,547	1,252	6,592	4,703
Horsepower rating of electric motors driven by energy generated and used at same establishment.....	55	...	55	...
Energy used.....million kwh equivalent..	85	12	38	35
Water intake, including mine water used.....million gallons..	131	...	130	1
Per production worker.....do....	0.33	...	0.52	0.01

See footnotes at end of table.

Table 4A.—DETAILED STATISTICS FOR MISCELLANEOUS NONMETALLIC MINERALS (EXCEPT FUELS) INDUSTRIES IN THE UNITED STATES, BY TYPE OF OPERATION:
1954—Continued
(For explanation of line captions, see INTRODUCTION)

Item	Mica industry ¹⁴							
	All types of establishments	Producing establishments						Nonproducing establishments
		Mines only		Mines with preparation plants				
		Open-pit	Other ⁴	By mining method		By extent of preparation		
				Open-pit	Other ⁵	Trimming only	Other	
Number of operating companies.....	446	32	15	272	137	364	27	8
Number of establishments.....	498	32	15	284	159	413	30	8
Number of mines.....	510	32	15	293	162	430	25	8
Number of preparation plants.....	444	...	...	284	158	412	30	2
Production of primary products ¹⁰.....short tons..	59,068	1,036	5,153	50,884	1,995	7,147	45,732	...
Value of shipments.....\$1,000..	4,126	98	115	2,212	1,701	2,242	1,671	...
Value added in mining.....do....	3,284	85	96	1,538	1,477	1,987	1,028	88
Number of persons engaged, total.....	1,259	42	30	616	554	891	279	17
Production and development workers.....	668	11	12	303	333	404	232	9
All other employees.....	42	...	1	24	14	18	20	3
Proprietors and firm members.....	549	31	17	289	207	469	27	5
Performing manual labor.....	432	23	16	252	141	376	17	...
Man-hours worked by production and development workers, total.....1,000..	1,196	16	29	621	517	623	515	13
At mines, total.....do....	594	16	29	239	298	378	159	12
Open-pit or quarry.....do....	276	16	5	233	16	95	154	6
Underground.....do....	297	...	23	...	268	268	...	6
Surface (including mine shops and yards).....do....	21	...	1	6	14	15	5	...
At preparation plants.....do....	602	...	...	382	219	245	356	1
Man-hours spent on development and exploration work (included above).....do....	40	3	...	7	25	31	1	5
Tons of primary products per man-hour ¹⁰	(11)	(11)	(11)	(11)	(11)	(11)	0.09	xxx
Principal expenses designated below, total.....\$1,000..	2,570	58	55	1,438	838	996	1,280	181
Wages of production and development workers.....do....	1,255	20	31	660	529	636	553	15
Salaries of all other employees.....do....	87	...	3	63	13	18	58	8
Minerals received for preparation.....do....	34	...	...	...	...	...	34	...
Supplies ¹².....do....	564	137	13	387	182	188	347	1
Fuel.....do....	151	1	7	111	31	40	102	1
Purchased electric energy.....do....	132	...	1	125	6	5	126	...
Contract work.....do....	347	(13)	(13)	92	77	109	60	156
Purchased machinery installed.....do....	474	(D)	(D)	197	60	80	177	202
Capital expenditures, total.....do....	860	(D)	(D)	238	132	167	203	448
Development and exploration of mineral property.....do....	255	(D)	(D)	24	82	98	8	122
Preparation plant construction.....do....	176	...	...	48	6	7	47	122
Other construction.....do....	12	...	...	3	2	3	2	7
New machinery and equipment.....do....	321	1	...	108	28	38	98	184
Used plant and equipment.....do....	96	14	...	55	14	21	48	13
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	17,092	405	420	10,648	5,404	7,148	8,904	215
Per production worker.....	(11)	(11)	(11)	(11)	(11)	(11)	38	24
Prime movers.....	12,709	405	410	6,631	5,048	6,883	4,796	215
Electric motors driven by purchased energy.....	4,383	...	10	4,017	356	265	4,108	...
Horsepower rating of electric motors driven by energy generated and used at same establishment.....	13	...	...	...	13	13	...	...
Energy used.....million kwh equivalent..	58	...	2	47	9	11	45	...
Water intake, including mine water used.....million gallons..	1,022	...	...	1,021	1	3	1,019	...
Per production worker.....do....	(11)	...	...	(11)	(11)	(11)	4.39	...

See footnotes at end of table.

Table 4A.—DETAILED STATISTICS FOR MISCELLANEOUS NONMETALLIC MINERALS (EXCEPT FUELS) INDUSTRIES IN THE UNITED STATES, BY TYPE OF OPERATION:
1954—Continued
(For explanation of line captions, see INTRODUCTION)

Item	Pumice and pumicite industry		
	All types of establishments	Open-pit mines only ⁶	Open-pit mines with preparation plants
Number of operating companies.....	73	26	47
Number of establishments.....	75	28	47
Number of mines.....	75	28	47
Number of preparation plants.....	47	...	47
Production of primary products ¹⁰.....1,000 short tons..	1,818	653	1,165
Value of shipments.....\$1,000..	3,393	424	2,969
Value added in mining.....do..	2,741	382	2,359
Number of persons engaged, total.....	326	52	274
Production and development workers.....	223	26	197
All other employees.....	44	1	43
Proprietors and firm members.....	59	25	34
Performing manual labor.....	35	21	14
Man-hours worked by production and development workers, total.....1,000..	440	44	396
At mines, total.....do..	169	44	125
Open-pit or quarry.....do..	165	43	122
Underground.....do..	...	...	...
Surface (including mine shops and yards).....do..	4	1	3
At preparation plants.....do..	271	...	271
Man-hours spent on development and exploration work (included above).....do..	8	...	8
Tons of primary products per man-hour ¹⁰	4.13	(11)	2.94
Principal expenses designated below, total.....\$1,000..	1,731	134	1,597
Wages of production and development workers.....do..	748	76	672
Salaries of all other employees.....do..	214	3	211
Minerals received for preparation.....do..	334	1346	13564
Supplies ¹².....do..	119	9	110
Fuel.....do..	40	...	40
Purchased electric energy.....do..	276	(13)	(13)
Contract work.....do..	...	...	...
Purchased machinery installed.....do..	298	18	280
Capital expenditures, total.....do..	415	31	384
Development and exploration of mineral property.....do..	32	12	20
Preparation plant construction.....do..	75	...	75
Other construction.....do..	23	...	23
New machinery and equipment.....do..	99	19	266
Used plant and equipment.....do..	186	...	...
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	25,717	3,807	21,910
Per production worker.....	115	(11)	111
Prime movers.....	22,189	3,795	18,394
Electric motors driven by purchased energy.....	3,528	12	3,516
Horsepower rating of electric motors driven by energy generated and used at same establishment.....	210	...	210
Energy used.....million kwh equivalent..	56	2	54
Water intake, including mine water used.....million gallons..	27	1	26
Per production worker.....do..	0.12	(11)	0.13

See footnotes at end of table.

Table 4A.—DETAILED STATISTICS FOR MISCELLANEOUS NONMETALLIC MINERALS (EXCEPT FUELS) INDUSTRIES IN THE UNITED STATES, BY TYPE OF OPERATION:
1954—Continued

(For explanation of line captions, see INTRODUCTION)

Item	Talc, soapstone, and pyrophyllite industry								
	All types of establishments	Producing establishments							Non-producing establishments
		Open-pit mines		Underground mines by principal mining methods					
				Total		Open stoping	Square setting	Other ⁷	
		Without preparation plant	With preparation plant	Without preparation plant	With preparation plant				
Number of operating companies.....	54	9	19	10	16	13	3	10	4
Number of establishments.....	68	10	21	16	17	15	8	10	4
Number of mines.....	75	10	22	22	17	20	9	10	4
Number of preparation plants.....	39	...	21	...	17	10	1	6	1
Production of primary products ¹⁰.....1,000 short tons..	610	25	234	92	259	236	33	82	...
Value of shipments.....\$1,000..	11,819	134	5,662	962	5,061	4,063	344	1,616	...
Value added in mining.....do....	9,486	114	4,748	757	3,846	3,217	195	1,191	21
Number of persons engaged, total.....	1,501	15	898	84	493	354	26	197	11
Production and development workers.....	1,297	8	773	75	435	309	26	175	6
All other employees.....	174	...	116	5	53	38	...	20	...
Proprietors and firm members.....	30	7	9	4	5	7	...	2	5
Performing manual labor.....	14	5	4	...	3	1	...	2	2
Man-hours worked by production and development workers, total.....1,000..	2,778	12	1,606	158	990	695	55	398	12
At mines, total.....do....	1,134	12	498	158	454	347	55	210	12
Open-pit or quarry.....do....	540	12	466	...	50	...	...	50	12
Underground.....do....	506	...	9	140	357	304	55	138	...
Surface (including mine shops and yards).....do....	88	...	23	18	47	43	...	22	...
At preparation plants.....do....	1,644	...	1,108	...	536	348	...	188	...
Man-hours spent on development and exploration work (included above).....do....	138	3	69	15	39	35	12	7	12
Tons of primary products per man-hour.....	0.22	(¹¹)	0.15	0.58	0.26	0.34	0.60	0.21	xxx
Principal expenses designated below, total.....\$1,000..	7,984	39	4,035	589	3,297	2,589	265	1,032	24
Wages of production and development workers.....do....	4,141	19	2,340	346	1,416	1,182	115	465	20
Salaries of all other employees.....do....	799	...	495	27	277	181	...	123	...
Minerals received for preparation.....do....	256	...	...	...	...	...	...	...	...
Supplies ¹².....do....	1,671	(¹³)	795	{ 13197 }	988	{ 665 }	86	13388	{ 134 }
Fuel.....do....	238	6	87	19	126	109	2	34	...
Purchased electric energy.....do....	467	...	207	...	260	238	...	22	...
Contract work.....do....	412	1314	111	(¹³)	230	214	62	(¹³)	(¹³)
Purchased machinery installed.....do....	486	...	159	46	281	239	20	68	...
Capital expenditures, total.....do....	1,197	...	445	57	670	619	21	87	25
Development and exploration of mineral property.....do....	300	...	199	18	58	58	...	18	25
Preparation plant construction.....do....	391	...	44	...	347	343	...	4	...
Other construction.....do....	62	...	60	2	...	...	...	2	...
New machinery and equipment.....do....	407	...	128	19	260	218	...	50	...
Used plant and equipment.....do....	37	...	14	18	5	...	...	13	...
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	36,349	1,030	15,831	3,897	15,280	14,816	517	4,344	311
Per production worker.....	28	(¹¹)	20	52	35	46	20	25	52
Prime movers.....	20,362	1,030	9,428	3,897	5,696	6,691	517	2,385	311
Electric motors driven by purchased energy.....	15,987	...	6,403	...	9,584	7,625	...	1,959	...
Horsepower rating of electric motors driven by energy generated and used at same establishment.....	1,421	...	1,421	...	...	...	...	...	...
Energy used.....million kwh equivalent..	133	1	59	5	68	61	1	11	...
Water intake, including mine water used.....million gallons..	324	...	(D)	(D)	117	117	...	...	(D)
Per production worker.....do....	0.25	...	(D)	(D)	0.27	0.38	...	...	(D)

See footnotes at end of table.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 4A.—DETAILED STATISTICS FOR MISCELLANEOUS NONMETALLIC MINERALS (EXCEPT FUELS) INDUSTRIES IN THE UNITED STATES, BY TYPE OF OPERATION:
1954—Continued

(For explanation of line captions, see INTRODUCTION)

Item	Peat industry			
	All types of establishments	Producing establishments		Nonproducing establishments
		Open-pit mines only	Open-pit mines with preparation plants	
Number of operating companies.....	86	19	63	4
Number of establishments.....	88	19	65	4
Number of mines.....	87	19	65	3
Number of preparation plants.....	68	...	65	3
Production of primary products ¹⁰.....1,000 short tons..	249	36	213	...
Value of shipments.....\$1,000..	2,326	120	2,206	...
Value added in mining.....do....	1,800	105	1,686	9
Number of persons engaged, total.....	422	36	375	11
Production and development workers.....	321	12	299	10
All other employees.....	32	3	28	1
Proprietors and firm members.....	69	21	48	...
Performing manual labor.....	42	15	27	...
Man-hours worked by production and development workers, total.....1,000..	637	27	595	15
At mines, total.....do....	431	27	393	11
Open-pit or quarry.....do....	407	23	374	10
Underground.....do....	...	...	...	...
Surface (including mine shops and yards).....do....	24	4	19	1
At preparation plants.....do....	206	...	202	4
Man-hours spent on development and exploration work (included above).....do....	11	...	5	6
Tons of primary products per man-hour ¹⁰	0.39	(¹¹)	0.36	xxx
Principal expenses designated below, total.....\$1,000..	1,512	57	1,423	32
Wages of production and development workers.....do....	829	32	776	21
Salaries of all other employees.....do....	111	9	101	1
Minerals received for preparation.....do....	...	...	...	...
Supplies ¹².....do....	321	133	13357	7
Fuel.....do....	174	12	159	3
Purchased electric energy.....do....	31	1	30	...
Contract work.....do....	46	(¹³)	(¹³)	...
Purchased machinery installed.....do....	159	16	141	2
Capital expenditures, total.....do....	205	17	167	21
Development and exploration of mineral property.....do....	34	...	15	19
Preparation plant construction.....do....	15	...	15	...
Other construction.....do....	28	1	27	...
New machinery and equipment.....do....	104	12	90	2
Used plant and equipment.....do....	24	4	20	...
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	23,599	3,510	19,567	522
Per production worker.....	74	(¹¹)	65	52
Prime movers.....	22,099	3,497	18,080	522
Electric motors driven by purchased energy.....	1,500	13	1,487	...
Horsepower rating of electric motors driven by energy generated and used at same establishment.....	...	...	...	...
Energy used.....million kwh equivalent..	87	3	83	1
Water intake, including mine water used.....million gallons..	...	...	...	...
Per production worker.....do....	...	...	...	...

See footnotes at end of table.

Table 4A.—DETAILED STATISTICS FOR MISCELLANEOUS NONMETALLIC MINERALS (EXCEPT FUELS) INDUSTRIES IN THE UNITED STATES, BY TYPE OF OPERATION:
1954—Continued

(For explanation of line captions, see INTRODUCTION)

Item	Native asphalt and bitumens, Vermiculite, and Nonmetallic minerals, n.e.c., industries				
	All types of estab- lish- ments	Producing establishments			Non- producing establis- ments
		Mines only ⁸	Mines with preparation plants		
			Open-pit	Other ⁹	
Number of operating companies.....	72	10	41	16	7
Number of establishments.....	82	12	47	16	7
Number of mines.....	87	16	48	16	7
Number of preparation plants.....	65	...	47	16	2
Production of primary products ¹⁰.....1,000 short tons..	xxx	xxx	xxx	xxx	...
Value of shipments.....\$1,000..	31,284	676	27,136	3,472	...
Value added in mining.....do....	22,294	608	18,723	2,958	5
Number of persons engaged, total.....	2,364	97	1,980	280	7
Production and development workers.....	1,825	71	1,510	243	1
All other employees.....	494	16	450	28	...
Proprietors and firm members.....	45	10	20	9	6
Performing manual labor.....	17	1	7	4	5
Man-hours worked by production and development workers, total.....1,000..	3,690	138	3,062	489	1
At mines, total.....do....	1,469	138	962	368	1
Open-pit or quarry.....do....	820	28	783	8	1
Underground.....do....	323	61	...	262	...
Surface (including mine shops and yards).....do....	326	49	179	98	...
At preparation plants.....do....	2,221	...	2,100	121	...
Man-hours spent on development and exploration work (included above).....do....	79	22	24	32	1
Tons of primary products per man-hour ¹⁰	xxx	xxx	xxx	xxx	xxx
Principal expenses designated below, total.....\$1,000..	19,049	418	16,816	1,811	4
Wages of production and development workers.....do....	6,701	265	5,597	838	1
Salaries of all other employees.....do....	2,766	23	2,419	324	...
Minerals received for preparation.....do....	265	...	5,690	423	{
Supplies ¹².....do....	5,915	67			
Fuel.....do....	1,104	22	1,040	42	...
Purchased electric energy.....do....	807	2	767	38	...
Contract work.....do....	1,491	39	1,303	146	3
Purchased machinery installed.....do....	1,917	26	1,645	246	...
Capital expenditures, total.....do....	2,509	88	2,032	381	8
Development and exploration of mineral property.....do....	223	74	17	124	8
Preparation plant construction.....do....	831	2	822	7	...
Other construction.....do....	13	2	4	7	...
New machinery and equipment.....do....	1,403	1	1,161	241	...
Used plant and equipment.....do....	39	9	28	2	...
Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	107,375	1,769	95,840	9,566	200
Per production worker.....	59	25	63	39	(11)
Prime movers.....	60,096	1,507	52,490	5,899	200
Electric motors driven by purchased energy.....	47,279	262	43,350	3,667	...
Horsepower rating of electric motors driven by energy generated and used at same establishment.....	2,330	...	2,118	212	...
Energy used.....million kwh equivalent..	686	8	662	16	...
Water intake, including mine water used.....million gallons..	558	...	493	65	...
Per production worker.....do....	0.31	...	0.33	0.27	...

xxx Not applicable. D Withheld to avoid disclosing figures for individual companies. ¹Represents 13 producing open-pit mines, one producing underground mine, and one nonproducing mine. ²Includes data for one nonproducing mine. ³Represents one combination open-pit and underground mine, 2 underground mines, and includes data for 2 preparation plants not operated in conjunction with mines. ⁴Represents one combination open-pit and underground mine, 5 underground mines, and 9 mines not reported by type of mine. The latter mines accounted for about 13 percent of the value of shipments for this group. ⁵Represents 10 combination open-pit and underground mines, 77 underground mines, 75 mines not reported by type of mine and includes data for 5 preparation plants not operated in conjunction with mines. The 75 mines not reported by type accounted for about 15 percent of the value of shipments for this group. ⁶Includes data for 2 nonproducing mines. ⁷Represents 3 combination open-pit and underground mines and 7 underground mines with principal mining method not specified. The latter mines accounted for about 49 percent of the value of shipments for this group. ⁸Represents 9 open-pit mines, 1 combination open-pit and underground mine, and 6 underground mines. ⁹Represents 14 underground mines, 2 mines not reported by type of mine, and includes data for 1 preparation plant not operated in conjunction with a mine. The 2 mines not reported by type accounted for about 2 percent of the value of shipments for this group. ¹⁰See table 1, footnote 7. ¹¹See table 1, footnote 15. ¹²See table 3, footnote 29. ¹³See table 1, footnote 19. ¹⁴Unit of quantity, short tons.

Table 4B.—NUMBER OF ESTABLISHMENTS WITH PREPARATION PLANTS IN THE MISCELLANEOUS NONMETALLIC MINERALS (EXCEPT FUELS) INDUSTRIES REPORTING SPECIFIED MINERAL PREPARATION METHODS, CLASSIFIED BY NUMBER OF EMPLOYEES: 1954

Industry and mineral preparation method	Total number of establishments	Number of establishments with preparation plants with an average of—							
		No employees	1-4 employees	5-9 employees	10-19 employees	20-49 employees	50-99 employees	100-249 employees	250-499 employees
GYPSUM INDUSTRY									
Number of establishments with preparation plants..	22	...	6	9	3	2	1	1	...
Number of establishments reporting specified preparation method: ¹									
Crushing.....	16	...	3	6	3	2	1	1	...
Grinding.....	5	...	2	3	...	...	...	...	...
Screening.....	2	...	1	1	...	...	...	...	...
Drying.....	1	...	...	1	...	...	...	...	...
MICA INDUSTRY									
Number of establishments with preparation plants..	444	321	77	29	11	5	1	...	...
Number of establishments reporting specified preparation method: ¹									
Crushing.....	10	2	2	4	1	1	...	...	...
Dry grinding.....	3	...	...	2	...	1	...	...	...
Wet grinding.....	1	...	...	1	...	...	...	...	...
Screening.....	15	1	3	9	1	1	...	...	...
Washing.....	1	...	1	...	...	...	...	...	...
Drying.....	7	1	...	4	1	1	...	...	...
Trimming.....	419	318	71	20	8	1	1	...	...
NATIVE ASPHALT AND BITUMENS INDUSTRY									
Number of establishments with preparation plants..	8	...	...	1	1	2	2	2	...
Number of establishments reporting specified preparation method: ¹									
Crushing.....	7	...	...	1	...	2	2	2	...
Pulverizing.....	3	...	...	1	1	...	...	1	...
Screening.....	1	...	...	...	...	...	1	...	...
Washing.....	1	...	...	...	...	...	...	1	...
PUMICE AND PUMICITE INDUSTRY									
Number of establishments with preparation plants..	247	10	19	12	5	1	...	...	...
Number of establishments reporting specified preparation method: ¹									
Crushing.....	27	4	11	10	2	...	...	...	...
Grinding.....	7	2	1	2	2	...	...	...	...
Screening.....	13	4	4	4	1	...	...	...	...
Washing.....	2	...	1	1	...	...	...	...	...
Drying.....	7	...	3	2	2	...	...	...	...
Air separation.....	7	...	3	2	2	...	...	...	...
Calcining.....	2	...	...	...	2	...	...	...	...
Sawing.....	2	...	...	1	...	1	...	...	...
TALC, SOAPSTONE, AND PYROPHYLLITE INDUSTRY									
Number of establishments with preparation plants..	339	7	8	5	6	8	3	1	1
Number of establishments reporting specified preparation method: ¹									
Crushing.....	21	2	3	3	4	6	2	1	...
Grinding.....	25	2	2	4	5	7	3	1	1
Micronizing.....	2	...	...	...	...	1	1	...	...
Screening.....	9	...	1	2	2	4	...	...	...
Gravity concentration.....	1	...	...	...	...	1	...	...	...
Flotation.....	1	...	...	...	...	1	...	...	...
Drying.....	9	...	2	1	1	4	1	...	...
Air separation.....	13	1	2	1	3	5	1	...	...
Sawing.....	6	...	...	...	1	3	1	...	1
Sorting.....	14	2	5	2	1	3	1	...	...
PEAT INDUSTRY									
Number of establishments with preparation plants..	468	13	31	13	8	3	...	...	...
Number of establishments reporting specified preparation method: ¹									
Crushing.....	1	...	...	1	...	...	...	...	...
Grinding.....	8	...	4	2	2	...	...	...	...
Pulverizing.....	31	10	10	6	4	1	...	...	...
Shredding.....	26	5	10	5	4	2	...	...	...
Screening.....	4	2	1	...	1	...	...	...	...
Drying.....	13	2	4	2	3	2	...	...	...

See footnotes at end of table.

Table 4B.—NUMBER OF ESTABLISHMENTS WITH PREPARATION PLANTS IN THE MISCELLANEOUS NONMETALLIC MINERALS (EXCEPT FUELS) INDUSTRIES REPORTING SPECIFIED MINERAL PREPARATION METHODS, CLASSIFIED BY NUMBER OF EMPLOYEES: 1954—Continued

Industry and mineral preparation method	Total number of establishments	Number of establishments with preparation plants with an average of—							
		No employees	1-4 employees	5-9 employees	10-19 employees	20-49 employees	50-99 employees	100-249 employees	250-499 employees
VERMICULITE AND NONMETALLIC MINERALS, N.E.C., INDUSTRIES							1		
Number of establishments with preparation plants..	257	6	15	11	11	7	2	3	2
Number of establishments reporting specified preparation method: ¹									
Crushing.....	37	3	6	8	10	6	...	2	2
Grinding.....	17	1	6	4	3	2	...	1	...
Pulverizing.....	1	...	...	...	1	...	...	...	...
Screening.....	9	...	2	2	1	3	...	1	...
Washing.....	4	...	1	1	1	...	...	1	...
Gravity.....	1	...	...	...	...	...	...	1	...
Drying.....	21	1	3	3	5	2	2	3	2
Air separation.....	14	...	...	1	4	3	2	2	2
Calcining.....	8	...	1	1	1	1	2	1	1
Dimension stone preparation.....	2	...	...	...	1	...	...	...	1

¹Some establishments reported more than one mineral preparation method used and are included in the line for each method reported.²Six of these establishments did not specify the preparation method used.³One of these establishments did not specify the preparation method used.⁴Seven of these establishments did not specify the preparation method used.

Table 5A.—VALUE OF SHIPMENTS OF PRIMARY PRODUCTS OF THE MISCELLANEOUS NONMETALLIC MINERALS (EXCEPT FUELS) INDUSTRIES PRODUCED IN ALL INDUSTRIES AND VALUE OF SECONDARY PRODUCTS AND SERVICES IN THESE INDUSTRIES: 1954

(For explanation of column captions, see INTRODUCTION)

Industry group and industry	Total primary and secondary products in specified industry	Value of shipments and interplant transfers (\$1,000)			
		Primary products			Secondary products and services
		Total	Produced in specified industry	Produced in other mineral industries and in manufacturing industries	
Miscellaneous nonmetallic minerals (except fuels) industries:					
Gypsum.....	6,631	10,301	6,613	¹ 3,688	² 18
Mica.....	4,126	7,938	4,083	³ 3,855	⁴ 43
Native asphalt and bitumens.....	6,424	6,408	6,408	...	⁵ 16
Pumice and pumicite.....	3,393	3,489	3,324	165	⁶ 69
Talc, soapstone, and pyrophyllite.....	11,819	14,595	11,819	⁷ 2,776	...
Peat.....	2,326	2,307	2,307	...	⁸ 19
Vermiculite and nonmetallic minerals, n.e.c.....	24,860	24,731	24,698	33	⁹ 162

¹Represents primarily crude gypsum produced by mines included in establishments classified in the manufacturing industry, "Gypsum products." Excludes gypsum valued at about \$15,000,000 which was mined and used in the same establishment in this manufacturing industry.²Represents sales of products purchased and resold without further processing, and sales of electric energy.³Represents primarily ground mica produced by establishments classified in the manufacturing industry, "Minerals and earths: ground or otherwise treated."⁴Represents crude feldspar, beryllium concentrates, gem material, and crude amblygonite.⁵Represents receipts for contract services.⁶Represents prepared diatomite, crushed trap rock, sales of products purchased and resold without further processing, and sand and gravel.⁷Represents ground talc, soapstone, and pyrophyllite produced at establishments classified in the manufacturing industry, "Minerals and earths: ground or otherwise treated."⁸Represents dirt, gravel, and receipts for contract services.⁹Represents expanded perlite, dimension slate, receipts for contract services, sales of products purchased and resold without further processing, and pumice and pumicite.

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 5B.—PRIMARY PRODUCTS OF THE MISCELLANEOUS NONMETALLIC MINERALS (EXCEPT FUELS) INDUSTRIES, IN THE UNITED STATES: 1954 AND 1939

(For explanation of column captions, see INTRODUCTION)

Product	Unit of measure for quantity	1954			1939 production	
		Production	Shipments and interplant transfers		Quantity	Value f.o.b. mine or plant
			Quantity	Value f.o.b. mine or plant		
		(quantity)		(\$1,000)		(\$1,000)
GYPSUM¹						
Gypsum (crude), including gypsite and anhydrite, total.....	1,000 short tons	9,057	3,439	10,301	3,314	4,580
Produced by mines and plants classified in the gypsum industry.....	....do....	2,487	2,479	6,613	(NA)	(NA)
Produced by mines included in establishments classified in other mineral industries and by manufacturing industries.....	....do....	6,570	960	3,688	(NA)	(NA)
MICA¹						
Hand-cobbed mica.....	Pounds.....	927,263	927,283	244	323,230	3347
Full-trim sheet mica equivalent.....	....do....	42,000	...	...
Sheet mica, total.....	....do....	462,269	457,696	2,254		
Punch, circle, and washer.....	....do....	290,919	286,375	41		
Full-trim, half-trim, and other sheet mica.....	....do....	2171,350	2171,321	2,213		
Scrap (or flake) mica.....	Short tons.	455,362	455,238	4746		
Ground mica, total.....	....do....	581,112	581,412	54,694	630,924	61,156
Mined and processed at establishments classified in the mineral industries.....	....do....	45,021	45,303	1,539	(NA)	(NA)
Processed at establishments classified in the manufacturing industries.....	....do....	36,091	36,109	3,155	(NA)	(NA)
GILSONITE, BITUMINOUS LIMESTONE, AND BITUMINOUS SANDSTONE.....	1,000 short tons	1,417	1,408	6,408	495	2,818
PUMICE AND PUMICITE¹						
Pumice and pumicite.....	....do....	71,938	71,937	73,489	86,577	387
PEAT¹						
Peat, total.....	Short tons.	248,664	248,039	2,307	855,556	8378
Moss peat.....	....do....	34,184	34,182	382	(NA)	(NA)
Reed and sedge peat.....	....do....	64,459	64,332	861	(NA)	(NA)
Peat humus.....	....do....	145,060	144,544	1,050	(NA)	(NA)
Other peat.....	....do....	4,961	4,981	14	(NA)	(NA)
NONMETALLIC MINERALS, N.E.C.¹						
Asbestos, total.....	....do....	49,310	50,033	4,874	915,423	9492
Chrysotile.....	....do....	44,278	45,001	4,792	(NA)	(NA)
Amphibole.....	....do....	5,032	5,032	82	(NA)	(NA)
Diatomite:						
Crude.....	....do....	437,134	10364,371	1014,562	1198,461	112,018
Prepared.....	....do....	361,474				
Greensand marl.....	....do....	2,900	2,837	196	4,054	285
Perlite (crude).....	....do....	277,407	277,067	2,136	(NA)	(NA)
Nonmetallic minerals, n.e.c. ¹².....	....do....	...	...	2,742	...	311

Item	Total		Talc		Soapstone		Pyrophyllite	
	Quantity	Value f.o.b. mine or plant	Quantity	Value f.o.b. mine or plant	Quantity	Value f.o.b. mine or plant	Quantity	Value f.o.b. mine or plant
	(short tons)	(\$1,000)	(short tons)	(\$1,000)	(short tons)	(\$1,000)	(short tons)	(\$1,000)
Ore mined and ore processed at establishments classified in the mineral industries: ¹³								
Production:								
Crude.....	610,019	...	383,568	...	106,877	...	119,574	...
Crushed.....	189,796	...	112,823	...	(D)	...	(D)	...
Sawed.....	7,010	...	(D)	...	(D)	...	...	...
Ground.....	462,282	...	272,920	...	83,535	...	105,827	...
Shipments and interplant transfers:								
Crude.....	(D)	(D)	(D)	(D)	18,515	88	(D)	(D)
Crushed.....	3,055	25	(D)	(D)	(D)	(D)	(D)	(D)
Sawed.....	7,049	2,217	(D)	(D)	(D)	(D)	...	...
Ground.....	(D)	(D)	(D)	(D)	84,062	829	103,130	1,486

See footnotes at end of table.

Table 5B.—PRIMARY PRODUCTS OF THE MISCELLANEOUS NONMETALLIC MINERALS (EXCEPT FUELS) INDUSTRIES IN THE UNITED STATES: 1954 AND 1939—Continued

(For explanation of column captions, see INTRODUCTION)

Item	Total		Talc		Soapstone		Pyrophyllite	
	Quantity (short tons)	Value f.o.b. mine or plant (\$1,000)	Quantity (short tons)	Value f.o.b. mine or plant (\$1,000)	Quantity (short tons)	Value f.o.b. mine or plant (\$1,000)	Quantity (short tons)	Value f.o.b. mine or plant (\$1,000)
Ore mined and ore processed at establishments classified in the mineral industries ¹³ —Con. Crude ore prepared which was produced at the same establishment ¹⁴ .	485,093	...	289,782	...	87,366	...	107,945	...
Crude and ground ore received from other establishments for preparation.....	17,005	256	(D)	(D)	(D)	(D)	(D)	(D)
Net shipments, total ¹⁵	605,901	11,574	387,758	7,148	(D)	(D)	(D)	(D)
Crude.....	140,414	1,271	116,779	1,131	(D)	(D)	(D)	(D)
Crushed.....	3,055	25	(D)	(D)	(D)	(D)	(D)	(D)
Sawed.....	7,049	2,217	(D)	(D)	(D)	(D)	...	...
Ground.....	455,383	8,061	268,191	5,746	84,062	829	103,130	1,486
Ore processed at establishments classified in the manufacturing industries: Shipments and interplant transfers (ground).....	123,326	2,776	99,957	2,321	(D)	(D)	(D)	(D)
	1939							
Production, total ¹⁶	254,048	3,093	183,000	2,100	33,000	700	38,000	300
Crude ¹⁷	14,521	81	(NA)	(NA)	(NA)	(NA)	...	...
Sawed and manufactured.....	8,747	658	(NA)	(NA)	(NA)	(NA)	...	...
Ground.....	230,724	2,349	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Other (not classified by method of preparation) ¹⁸	56	5	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)

NA Not available.

D Withheld to avoid approximately disclosing figures of individual companies.

¹Figures on production and shipments of products by geographic divisions and States are shown in tables 2A, 2B, and 3.²Of this total, establishments in North Carolina produced and shipped 136,000 pounds valued at \$1,800,000.³Quantity figure represents short tons. Represents 229,862 pounds of sheet mica valued at \$63,000 and 20,616 tons of scrap mica valued at \$253,000 produced in the mica industry and 2,499 tons of mica valued at \$32,000 produced as a secondary product in other industries. Excludes production by establishments too small to come within the scope of the 1939 minerals census (see INTRODUCTION, "Coverage of the Census"). Such establishments produced about 4,000 tons of mica valued at \$88,000.⁴Of this total, establishments in North Carolina produced and shipped 34,000 tons valued at \$610,000.⁵Of this total, establishments in North Carolina produced and shipped 44,000 tons valued at \$2,358,000.⁶Sold or used by producers as reported by the Bureau of Mines, U. S. Department of the Interior.⁷Of this total, establishments in New Mexico produced and shipped 477,000 tons valued at \$1,012,000, and establishments in California produced 783,000 tons and shipped 782,000 tons valued at \$1,189,000.⁸Excludes production by establishments too small to come within the scope of the 1939 minerals census (see INTRODUCTION, "Coverage of the Census"). Such establishments produced about 4,000 tons of peat valued at \$17,000.⁹Excludes production by establishments too small to come within the scope of the 1939 minerals census (see INTRODUCTION, "Coverage of the Census"). Such establishments produced about 500 tons of asbestos valued at \$6,000.¹⁰Represents net shipments which are equal to total shipments and interplant transfers less crude minerals received from other establishments for preparation. Crude diatomite accounts for less than one percent of the total quantity and value of net shipments of crude and prepared diatomite.¹¹Excludes production by establishments too small to come within the scope of the 1939 minerals census (see INTRODUCTION, "Coverage of the Census"). Such establishments produced about 900 tons of diatomite valued at \$6,000.¹²For 1954, represents vermiculite, graphite, gem materials, and calcite (Iceland spar). For 1939, represents vermiculite, graphite, calcite, pinite, and also lithium minerals which are classified in the "Chemical and fertilizer mineral mining, n.e.c." industry, and for which separate statistics are not available.¹³Only crude ore was shipped by establishments outside of the "Talc, soapstone, and pyrophyllite" industry.¹⁴Includes 22,968 tons of talc and soapstone which was only sorted and screened. Shipments of this material are shown as crude ore.¹⁵Represents "Shipments and interplant transfers" less "Crude and ground ore received from other establishments for preparation."¹⁶The distribution by type of material is only approximate. However, it is based on a percentage distribution representing over 99 percent of the total tonnage.¹⁷Represents only crude material not prepared at the establishment where produced.¹⁸Excludes about 2,500 tons, valued at \$10,000 from establishments too small to come within the scope of the 1939 minerals census, (see INTRODUCTION, "Coverage of the Census").

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 6.—GENERAL STATISTICS FOR MISCELLANEOUS NONMETALLIC MINERALS (EXCEPT FUELS) ESTABLISHMENTS, CLASSIFIED BY NUMBER OF EMPLOYEES AND BY GEOGRAPHIC DIVISIONS AND STATES: 1954

(For explanation of column captions, see INTRODUCTION)

Industry, geographic division, State, and number of employees in establishment	Number of estab- lishments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and develop- ment workers (1,000)	Wages and salaries		New capital expendi- tures (\$1,000)
				Production and develop- ment workers	All other employees		Production and develop- ment workers (\$1,000)	All other employees (\$1,000)	
GYPSUM INDUSTRY									
United States, total.....	37	6,631	5,352	399	50	926	1,567	285	463
0.....	3	15	13	...	...	...	...	...	...
1-4.....	14	478	368	22	4	46	71	21	3
5-9.....	10	552	386	50	8	92	147	26	36
10-19.....	5	1,098	929	54	11	135	207	77	37
20-49.....	3	4,488	3,656	273	27	653	1,142	161	352
50-99.....	1								
100-249.....	1								
East and South, total.....	10	3,957	3,164	278	25	663	1,082	138	144
1-4.....	1	553	406	39	2	96	114	11	(D)
5-9.....	3								
10-19.....	2								
20-49.....	2	3,404	2,758	239	23	567	968	127	(D)
50-99.....	1								
100-249.....	1								
Mountain, total.....	14	1,664	1,372	82	10	174	339	62	230
0.....	1	95	66	11	...	18	30	1	...
1-4.....	7								
5-9.....	4								
10-19.....	1	1,569	1,306	71	10	156	309	61	(D)
20-49.....	1								
Colorado, total.....	3	179	157	10	2	16	21	4	(D)
1-4.....	1	179	157	10	2	16	21	4	(D)
5-9.....	2								
Pacific, total.....	13	1,010	816	39	15	89	146	85	89
0.....	2	382	304	10	4	26	39	20	(D)
1-4.....	6								
5-9.....	3	628	512	29	11	63	107	65	(D)
10-19.....	2								
MICA INDUSTRY									
United States, total.....	498	4,126	3,284	668	42	1,196	1,255	87	764
0.....	351	731	651	158	7	237	236	16	503
1-4.....	98	518	557						
5-9.....	32	913	729	163	16	303	314	25	(D)
10-19.....	11	876	546	148	14	281	296	27	62
20-49.....	5	1,088	801	199	5	375	409	19	(D)
50-99.....	1								
Northeast and North Central, total.....	50	430	359	76	3	132	161	14	16
0.....	23	56	48	...	...	...	...	...	(D)
1-4.....	21	163	140	41	2	67	78	4	(D)
5-9.....	5	211	171	35	1	65	83	10	...
10-19.....	1								
New Hampshire, total.....	17	218	175	48	1	86	93	1	(D)
0.....	3	9	7	...	...	...	...	...	...
1-4.....	11	72	62	23	1	37	38	1	(D)
5-9.....	2	137	106	25	...	49	55	...	...
10-19.....	1								
South, total.....	434	3,530	2,731	569	36	1,020	1,023	65	332
0.....	321	629	573	...	...	...	...	...	68
1-4.....	73	354	336	111	2	160	147	4	73
5-9.....	24	688	555	130	16	238	210	16	(D)
10-19.....	10	771	466	129	13	247	257	26	62
20-49.....	5	1,088	801	199	5	375	409	19	(D)
50-99.....	1								
North Carolina, total.....	379	3,093	2,548	521	35	905	904	58	273
0.....	282	576	527	...	...	...	...	...	30
1-4.....	59	272	257	86	2	118	110	2	59
5-9.....	23	628	506	122	16	216	187	16	(D)
10-19.....	9	529	457	114	12	196	198	21	55
20-49.....	5	1,088	801	199	5	375	409	19	(D)
50-99.....	1								
Georgia, total.....	31	397	146	38	1	101	107	7	49
0.....	22	32	32	...	...	...	...	...	38
1-4.....	7	365	114	38	1	101	107	7	11
5-9.....	1								
10-19.....	1								

See footnotes at end of table.

Table 6.—GENERAL STATISTICS FOR MISCELLANEOUS NONMETALLIC MINERALS (EXCEPT FUELS) ESTABLISHMENTS, CLASSIFIED BY NUMBER OF EMPLOYEES AND BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

Industry, geographic division, State, and number of employees in establishment	Number of estab- lishments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and develop- ment workers (1,000)	Wages and salaries		New capital expendi- tures (\$1,000)
				Production and develop- ment workers	All other employees		Production and develop- ment workers (\$1,000)	All other employees (\$1,000)	
MICA INDUSTRY—Continued									
Geographic divisions—Con.									
West, total.....	14	166	194	23	3	44	71	8	416
0.....	7	46	30	...	...	...	...	...	...
1-4.....	4	120	164	23	3	44	71	8	416
5-9.....	3								
NATIVE ASPHALT AND BITUMENS INDUSTRY									
United States, total.....	12	6,424	4,857	451	100	987	1,443	704	540
0.....	1	533	342	35	4	69	128	19	22
5-9.....	2								
10-19.....	2	1,026	814	84	17	181	260	80	12
20-49.....	3								
50-99.....	2	4,865	3,701	332	79	737	1,055	605	506
100-249.....	2								
PUMICE AND PUMICITE INDUSTRY									
United States, total.....	75	3,393	2,741	223	44	440	748	214	229
0.....	26	239	169	...	...	...	...	...	8
1-4.....	30	1,029	866	59	9	102	180	16	56
5-9.....	12	952	827	69	11	136	246	34	98
10-19.....	6	1,173	879	95	24	202	322	164	67
20-49.....	1								
West North Central and West South Central, total.....	8	213	118	23	5	55	53	26	...
0.....	4	41	23	...	...	...	...	...	...
1-4.....	3	172	95	23	5	55	53	26	...
10-19.....	1								
Mountain, total.....	30	1,685	1,414	85	13	168	281	47	106
0.....	9	137	90	...	...	...	...	...	(D)
1-4.....	13	705	590	27	3	48	76	8	(D)
5-9.....	6	843	734	58	10	120	205	39	88
10-19.....	2								
New Mexico, total.....	14	1,043	850	53	11	106	169	38	42
0.....	2	380	303	13	2	24	38	5	9
1-4.....	6								
5-9.....	5	663	547	40	9	82	131	33	33
10-19.....	1								
Pacific, total.....	37	1,495	1,209	115	26	217	414	141	123
0.....	13	61	56	...	...	...	...	...	46
1-4.....	14	292	252	26	4	47	94	3	
5-9.....	6	414	332	35	4	70	127	10	71
10-19.....	3	728	569	54	18	100	193	128	6
20-49.....	1								
California, total.....	27	1,200	957	95	23	182	340	137	56
0.....	10	50	45	...	...	...	...	...	14
1-4.....	9	174	146	17	4	35	67	3	
5-9.....	4	248	197	24	1	47	80	6	36
10-19.....	3	728	569	54	18	100	193	128	6
20-49.....	1								
Oregon, total.....	6	277	236	18	3	33	71	4	64
0.....	1	277	236	18	3	33	71	4	64
1-4.....	3								
5-9.....	2								
TALC, SOAPSTONE, AND PYROPHYLITE INDUSTRY									
United States, total.....	68	11,819	9,486	1,297	174	2,778	4,141	799	1,160
0.....	14	209	117	...	...	...	...	...	14
1-4.....	22	383	362	42	1	80	152	4	62
5-9.....	11	1,028	759	71	9	143	265	38	69
10-19.....	8	955	759	98	15	221	348	57	12
20-49.....	8	1,967	1,511	228	36	491	582	160	83
50-99.....	3	7,277	5,978	858	113	1,843	2,794	540	920
100-249.....	1								
250-499.....	1								
	1								

See footnotes at end of table.

Table 6.—GENERAL STATISTICS FOR MISCELLANEOUS NONMETALLIC MINERALS (EXCEPT FUELS) ESTABLISHMENTS, CLASSIFIED BY NUMBER OF EMPLOYEES AND BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

Industry, geographic division, State, and number of employees in establishment	Number of establishments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
TALC, SOAPSTONE, AND PYROPHYLLITE INDUSTRY—Continued									
Geographic Divisions—Con.									
Northeast, total.....	7	4,760	3,959	367	61	824	1,661	219	717
1-4.....	1	4,760	3,957	367	61	824	1,661	219	717
10-19.....	2								
20-49.....	2								
50-99.....	1								
100-249.....	1								
South, total.....	17	5,177	4,056	787	104	1,662	1,906	532	338
0.....	2	125	100	5	1	9	12	4	16
1-4.....	2								
5-9.....	2	388	260	36	11	84	101	30	18
10-19.....	2								
20-49.....	6	4,664	3,696	746	92	1,569	1,793	498	304
50-99.....	2								
250-499.....	1								
North Carolina, total.....	8	1,960	1,425	204	23	448	507	132	85
0.....	2	1,960	1,425	204	23	448	507	132	85
1-4.....	1								
5-9.....	1								
20-49.....	2								
50-99.....	2								
West, total.....	44	1,882	1,471	143	9	292	574	48	105
0.....	12	138	68	...	...	...	...	...	(D)
1-4.....	19	329	295	33	...	63	124	...	39
5-9.....	9	867	647	59	5	120	239	28	58
10-19.....	4	548	461	51	4	109	211	20	(D)
California, total.....	27	1,402	1,133	106	8	218	455	42	50
0.....	6	113	53	...	...	...	...	...	(D)
1-4.....	11	225	197	18	...	33	72	...	(D)
5-9.....	6	516	422	37	4	76	172	22	15
10-19.....	4	548	461	51	4	109	211	20	(D)
PEAT INDUSTRY									
United States, total.....	88	2,326	1,800	321	32	637	829	111	181
0.....	24	71	85	...	...	...	...	...	40
1-4.....	40	597	455	77	4	145	195	10	87
5-9.....	13	421	345	80	9	152	167	22	32
10-19.....	8	53	411	89	7	163	213	26	(D)
20-49.....	3	707	504	75	12	177	254	53	(D)
New England, total.....	10	136	105	35	3	54	55	7	27
0.....	3	36	28	5	2	11	8	6	7
1-4.....	4								
5-9.....	1	100	77	30	1	43	47	1	20
10-19.....	2								
Maine, total.....	4	100	77	32	1	46	49	1	20
1-4.....	1	100	77	32	1	46	49	1	20
5-9.....	1								
10-19.....	2								
Middle Atlantic, total.....	11	377	306	54	9	110	155	39	26
0.....	1	131	108	15	...	30	39	...	19
1-4.....	7								
5-9.....	1	246	198	39	9	80	116	39	7
10-19.....	1								
20-49.....	1								
Pennsylvania, total.....	5	142	117	22	...	45	64	...	7
1-4.....	3	142	117	22	...	45	64	...	7
5-9.....	1								
10-19.....	1								
North Central, total.....	29	1,217	888	142	11	314	418	39	30
0.....	8	29	25	...	...	...	...	...	5
1-4.....	12	139	98	22	1	43	52	1	9
5-9.....	3	156	107	24	3	47	54	7	7
10-19.....	4	893	658	96	7	224	312	31	9
20-49.....	2								
Ohio, total.....	12	391	294	43	7	86	110	30	16
0.....	6	19	17	...	...	...	...	...	5
1-4.....	3	48	26	6	...	8	9	...	5
5-9.....	1	324	251	37	7	78	101	30	6
10-19.....	1								
20-49.....	1								

See footnotes at end of table.

Table 6.—GENERAL STATISTICS FOR MISCELLANEOUS NONMETALLIC MINERALS (EXCEPT FUELS) ESTABLISHMENTS, CLASSIFIED BY NUMBER OF EMPLOYEES AND BY GEOGRAPHIC DIVISIONS AND STATES: 1954—Continued

Industry, geographic division, State, and number of employees in establishment	Number of estab- lishments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and develop- ment workers (1,000)	Wages and salaries		New capital expendi- tures (\$1,000)
				Production and develop- ment workers	All other employees		Production and develop- ment workers (\$1,000)	All other employees (\$1,000)	
PEAT INDUSTRY—Continued									
Geographic divisions—Con.									
South, total.....	13	251	202	62	8	107	114	23	31
0.....	1	67	57	14	...	24	29	...	20
1-4.....	4								
5-9.....	7								
10-19.....	1	184	145	48	8	83	85	23	11
Florida, total.....	8	168	136	43	4	78	81	10	10
1-4.....	2	168	136	43	4	78	81	10	10
5-9.....	5								
10-19.....	1								
West, total.....	25	345	299	28	1	52	87	3	67
0.....	11	30	50	...	...	...	...	...	(D)
1-4.....	13	315	249	28	1	52	87	3	(D)
5-9.....	1								
Washington, total.....	19	154	140	12	1	22	35	3	49
0.....	10	27	47	...	...	...	...	...	(D)
1-4.....	9	127	93	12	1	22	35	3	(D)
VERMICULITE AND NONMETALLIC MINERALS, N.E.C., INDUSTRIES									
United States, total.....	70	24,860	17,437	1,374	394	2,703	5,258	2,062	1,930
0.....	10	375	243	32	3	50	85	4	68
1-4.....	22								
5-9.....	11	522	407	57	10	118	180	54	35
10-19.....	13	2,245	1,509	140	34	289	473	154	145
20-49.....	7	2,822	2,028	184	20	391	665	130	198
50-99.....	2	18,896	13,250	961	327	1,855	3,855	1,720	1,484
100-249.....	3								
250-499.....	2								

D Withheld to avoid approximately disclosing figures of individual companies.

Table 7.—MONTHLY EMPLOYMENT IN THE MISCELLANEOUS NONMETALLIC MINERALS (EXCEPT FUELS) INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES, AND BY TYPE OF OPERATION: 1954

Industry, geographic division, State, and type of operation	Average employ- ment for the year ¹	Number of employees by month											
		Janu- ary	Feb- ruary	March	April	May	June	July	August	Sep- tember	Oc- tober	No- vember	De- cember
GYPSUM INDUSTRY													
United States, total.....	449	397	406	423	428	409	425	414	477	493	503	504	503
Geographic Division and State													
East and South.....	303	266	267	266	268	253	267	263	339	355	363	364	367
Mountain.....	92	80	83	103	101	98	105	103	87	85	88	85	84
Colorado.....	12	10	10	10	10	11	19	18	11	12	11	12	12
Pacific.....	54	51	56	54	59	58	53	48	51	53	52	55	52
Type of Operation													
Open-pit mines.....	362	338	345	362	379	375	377	370	361	361	362	360	354
Combination underground and open-pit mines, underground mines, and separately-operated preparation plants.....	87	59	61	61	49	34	48	44	116	132	141	144	149
MICA INDUSTRY													
United States, total.....	710	588	618	656	659	680	673	775	774	795	814	791	697
Geographic Division and State													
Northeast and North Central.....	79	90	83	87	79	97	91	98	83	82	57	54	46
New Hampshire.....	49	59	57	59	52	49	57	74	56	49	27	29	24
South.....	605	469	505	539	548	551	565	660	674	693	729	706	624
North Carolina.....	556	429	463	488	501	511	522	603	613	636	683	651	574
Georgia.....	39	33	34	40	38	36	39	41	44	41	35	44	40
West.....	26	29	30	30	32	32	17	17	17	20	28	31	27
Type of Operation													
Producing establishments, total.....	698	578	608	646	650	674	665	763	761	783	794	771	681
Open-pit mines.....	338	326	341	334	327	334	315	369	355	353	354	348	299
Combination open-pit and underground mines, underground mines, and separately- operated preparation plants.....	360	252	267	312	323	340	350	394	406	430	440	423	382
Nonproducing establishments.....	12	10	10	10	9	6	8	12	13	12	20	20	16
NATIVE ASPHALT AND BITUMENS INDUSTRY													
United States ²	551	421	417	450	520	562	644	653	673	660	603	583	429
PUMICE AND PUMICITE INDUSTRY													
United States, total.....	267	250	250	264	288	285	277	290	273	271	249	259	247
West North Central and West South Central.....	28	26	22	30	29	25	30	33	29	26	25	27	29
Mountain.....	98	102	98	97	99	99	90	92	88	89	102	113	108
New Mexico.....	64	80	67	66	65	65	55	51	49	51	64	79	76
Pacific.....	141	122	130	137	160	161	157	165	156	156	122	119	110
Oregon.....	21	16	19	21	24	24	25	24	20	23	21	18	17
California.....	118	106	111	116	134	135	129	138	133	129	97	99	92
TALC, SOAPSTONE, AND PYROPHYLLITE INDUSTRY													
United States, total.....	1,471	1,459	1,449	1,453	1,442	1,474	1,473	1,477	1,478	1,487	1,498	1,494	1,475
Geographic Division and State													
Northeast.....	428	418	417	421	418	422	421	425	431	428	440	448	446
South.....	873	879	878	875	872	878	882	884	866	874	877	862	854
North Carolina.....	227	257	256	251	228	227	223	210	206	214	220	220	215
Maryland and Virginia.....	516	487	494	504	517	526	524	528	524	526	526	521	515
West.....	170	162	154	157	152	174	170	168	181	185	181	184	175
California.....	132	142	136	131	127	132	124	121	128	126	134	138	144
Type of Operation													
Producing establishments, total.....	1,447	1,434	1,424	1,428	1,416	1,448	1,447	1,453	1,454	1,463	1,474	1,470	1,453
Open-pit mines ³	379	832	834	858	862	892	886	905	900	907	907	888	878
Underground mines and combination open- pit and underground mines.....	568	602	590	570	554	556	561	548	554	556	567	582	575
Nonproducing establishments.....	6	6	6	6	8	8	8	6	6	6	6	6	4

See footnotes at end of table.

Table 7.—MONTHLY EMPLOYMENT IN THE MISCELLANEOUS NONMETALLIC MINERALS (EXCEPT FUELS) INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND STATES, AND BY TYPE OF OPERATION: 1954—Continued

Industry, geographic division, State, and type of operation	Average employ- ment for the year ¹	Number of employees by month											
		Janu- ary	Feb- ruary	March	April	May	June	July	August	Sep- tember	Oc- tober	No- vember	De- cember
PEAT INDUSTRY													
United States, total.....	353	287	287	336	372	389	400	403	384	387	379	327	289
Geographic Division and State													
New England.....	38	10	6	27	38	41	71	70	49	55	47	30	10
Maine.....	33	7	4	23	33	36	65	64	43	48	41	26	7
Middle Atlantic.....	63	50	49	54	62	65	65	72	75	73	73	64	58
Pennsylvania.....	22	15	15	19	21	22	23	29	30	28	27	20	18
North Central.....	153	132	140	155	161	170	160	165	166	165	161	134	128
Ohio.....	50	49	49	50	55	63	52	52	51	49	46	45	41
South.....	70	71	70	73	77	79	72	63	61	59	70	74	71
Florida.....	47	48	45	47	51	54	50	42	42	42	46	49	51
West.....	29	24	22	27	34	34	32	33	33	35	28	25	22
Washington.....	13	9	9	12	19	18	16	16	16	16	13	10	7
Type of Operation													
Producing establishments ⁴	342	279	279	327	363	381	391	387	371	374	366	315	277
Nonproducing establishments.....	11	8	8	9	9	8	9	16	13	13	13	12	12
VERMICULITE AND NONMETALLIC MINERALS, N.E.C., INDUSTRIES													
United States, total.....	1,768	1,786	1,805	1,767	1,759	1,772	1,756	1,776	1,762	1,776	1,726	1,767	1,762
East and South.....	503	526	532	519	508	502	492	498	493	486	478	492	503
Mountain.....	465	448	448	447	460	468	462	469	467	493	470	469	445
Pacific.....	800	812	825	801	791	802	802	809	802	797	778	806	814

¹Represents the sum of the average employment figures for the year as shown in the separate establishment reports. These are the averages shown in other tables of this report. Because of roundings, the sum of such average figures may differ slightly from the average of the January to December totals shown above.

²Represents data for 6 open-pit mines and 6 underground mines.

³Includes data for one separately operated preparation plant.

⁴Represents open-pit mines only.

Table 8.—GENERAL STATISTICS FOR SELECTED MISCELLANEOUS NONMETALLIC MINERALS (EXCEPT FUELS) INDUSTRIES IN THE UNITED STATES, CLASSIFIED BY OUTPUT PER MAN-HOUR AND BY TYPE OF OPERATION: 1954

(For explanation of column captions, see INTRODUCTION)

Output per man-hour and type of operation (short tons) ¹	Number of establishments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees (\$1,000)		Production and development workers (\$1,000)	All other employees (\$1,000)	
GYPSUM INDUSTRY ²									
United States, total.....	37	6,631	5,352	399	50	926	1,567	285	463
Less than 0.80.....	3	1,533	1,239	99	14	201	387	58	45
0.80-0.99.....	1								
1.00-1.24.....	2								
1.25-1.49.....	3	566	515	34	9	72	120	59	48
1.50-1.99.....	2								
2.00-2.99.....	2								
3.00-3.99.....	2	3,289	2,630	191	18	481	802	118	307
4.00-4.99.....	1								
5.00-6.99.....	3								
7.00-8.99.....	1	648	548	29	5	64	122	31	2
Unclassified ³	17								
Open-pit mines, total ²	32	5,296	4,331	322	40	745	1,300	244	418
Less than 0.80.....	2	4,135	4,153	4102	417	4200	4376	495	4109
0.80-0.99.....	...								
1.00-1.24.....	1								
1.25-1.49.....	3	3,289	2,630	191	18	481	802	118	307
1.50-1.99.....	1								
2.00-2.99.....	2								
3.00-3.99.....	2	648	548	29	5	64	122	31	2
4.00-4.99.....	1								
5.00-6.99.....	3								
7.00-8.99.....	1
9.00 and over.....	...								
Unclassified ³	16	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)
Combination open-pit and underground mines, underground mines, and separately operated preparation plants, total.....	5	1,335	1,021	77	10	181	267	41	45
Less than 0.80.....	1	1,335	1,021	77	10	181	267	41	45
0.80-0.99.....	1								
1.00-1.24.....	1								
1.25-1.49.....	1
1.50-1.99.....	1								
2.00 and over.....	...								
Unclassified ³	1
0.100-0.149.....	3								
0.150-0.199.....	1								
0.200-0.249.....	...	2,704	2,330	147	44	318	551	333	257
0.250-0.299.....	3								
0.300-0.599.....	...								
0.600-0.799.....	2	2,591	1,598	154	34	346	425	269	179
0.800 and over.....	...								
Unclassified ³	3								
NATIVE ASPHALT AND BITUMENS INDUSTRY ²									
United States, total.....	12	6,424	4,857	451	100	987	1,443	704	540
Less than 0.100.....
0.100-0.149.....	3	1,129	929	150	22	323	467	102	104
0.150-0.199.....	1								
0.200-0.249.....	...								
0.250-0.299.....	3	2,704	2,330	147	44	318	551	333	257
0.300-0.599.....	...								
0.600-0.799.....	2								
0.800 and over.....	...	2,591	1,598	154	34	346	425	269	179
Unclassified ³	3								
PUMICE AND PUMICITE INDUSTRY ²									
United States, total.....	75	3,393	2,741	223	44	440	748	214	229
Less than 0.050.....	2	203	124	30	...	71	81
0.050-0.099.....	...								
0.100-0.149.....	3								
0.150-0.199.....	1	249	226	21	8	41	65	37	18
0.200-0.299.....	1								
0.300-0.399.....	1								
0.400-0.499.....	...	1,402	1,246	97	20	175	335	108	48
0.500-0.599.....	1								
0.600-0.799.....	1								
0.800-0.999.....	1	1,539	1,145	75	16	153	267	69	163
1.000 and over.....	19								
Unclassified ³	45								
TALC, SOAPSTONE, AND PYROPHYLLITE INDUSTRY ²									
United States, total.....	64	11,819	9,465	1,291	174	2,766	4,121	799	1,135
Less than 0.050.....	3	258	233	30	8	76	83	31	3
0.050-0.074.....	3								
0.075-0.099.....	1								
0.100-0.124.....	1	2,654	2,239	519	66	1,072	1,233	358	224
0.125-0.149.....	1								
0.150-0.174.....	1								
0.175-0.199.....	...	2,919	2,377	303	54	668	1,200	191	152
0.200-0.299.....	5								
0.300-0.399.....	7								
0.400-0.499.....	5	251	177	25	5	55	79	21	18
0.500 and over.....	13								
Unclassified ³	24								

See footnotes at end of table.

Table 8.—GENERAL STATISTICS FOR SELECTED MISCELLANEOUS NONMETALLIC MINERALS (EXCEPT FUELS) INDUSTRIES IN THE UNITED STATES, CLASSIFIED BY OUTPUT PER MAN-HOUR AND BY TYPE OF OPERATION: 1954—Continued

(For explanation of column captions, see INTRODUCTION)

Output per man-hour and type of operation (short tons) ¹	Number of establishments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
TALC, SOAPSTONE, AND PYROPHYLLITE INDUSTRY—Continued									
Open-pit mines, total.....	31	5,796	4,862	781	116	1,618	2,359	495	431
Less than 0.050.....	2	4,103	3,584	651	100	1,367	2,001	437	328
0.050-0.074.....	1								
0.075-0.099.....	1								
0.100-0.199.....	...								
0.200-0.299.....	3								
0.300-0.399.....	3	541	410	54	9	107	146	30	16
0.400-0.499.....	3								
0.500 and over.....	4								
Unclassified ³	14	770	632	64	6	115	167	22	75
Combination open-pit and underground mines, and underground mines, total.....									
Less than 0.050.....	33	6,023	4,603	510	76	1,148	1,762	450	704
0.050-0.074.....	2	1,728	1,265	201	28	449	515	143	51
0.075-0.099.....	...								
0.100-0.124.....	1								
0.125-0.149.....	1								
0.150-0.174.....	1								
0.175-0.199.....	...	1,073	823	120	14	260	370	71	60
0.200-0.299.....	2								
0.300-0.399.....	4								
0.400-0.499.....	2								
0.500 and over.....	9								
Unclassified ³	10	646	517	50	5	98	217	25	18
		2,576	1,998	139	29	341	660	211	575
PEAT INDUSTRY ²									
United States, total.....	84	2,326	1,791	311	31	622	808	110	160
Less than 0.050.....	1	223	169	47	2	87	102	5	20
0.050-0.099.....	3								
0.100-0.149.....	...								
0.150-0.199.....	3	72	42	16	1	40	43	3	(D)
0.200-0.249.....	5	161	124	34	5	63	72	16	12
0.250-0.299.....	5	435	301	51	2	113	171	6	...
0.300-0.399.....	7	370	301	54	11	106	143	43	20
0.400-0.499.....	5	271	203	37	4	74	97	15	(D)
0.500-0.599.....	3	123	110	14	...	29	34	...	...
0.600-0.799.....	1								
0.800 and over.....	5								
Unclassified ³	46	103	75	10	2	22	23	6	14
		568	466	48	4	88	123	16	83

(D) Withheld to avoid disclosing figures for individual companies.

¹Represents short tons of the product indicated by the name of the industry.²Figures for the Gypsum industry and Pumice and Pomicite industry include producing and nonproducing establishments. Figures for all other industries represent producing establishments only.³Principally, in terms of value of shipments and employment, represents reports indicating that a substantial proportion of production was performed by contractors, for whom employee man-hour are not included in this table, and other reports specifying that a significant portion of reported man-hours were expended on exploration and development work. Also included are reports for a large number of small establishments which indicated that proprietors or partners regularly worked at the establishment; man-hours for these proprietors are not included. Figures for the Gypsum industry and Pumice and Pomicite industry also include nonproducing establishments. Significant ratios of output per man-hour could not be computed for these groups.⁴Figures for "Unclassified" are included with those for "Less than 2.00."

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 9.—SELECTED STATISTICS FOR MISCELLANEOUS NONMETALLIC MINERALS (EXCEPT FUELS) ESTABLISHMENTS, CLASSIFIED BY THE RATIO OF WAGES AND SALARIES TO VALUE ADDED IN MINING, BY INDUSTRY: 1954

(For explanation of column captions, see INTRODUCTION)

Industry, and ratio of wages and salaries to value added in mining	Number of establishments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
GYPSUM INDUSTRY									
United States, total.....	37	6,631	5,352	399	50	926	1,567	285	463
Less than 0.30.....	15	3,258	2,803	123	23	273	478	137	341
0.30-0.39.....	2	2,544	1,977	177	16	438	719	99	95
0.40-0.49.....	3								
0.50-0.59.....	4	285	188	31	2	79	94	9	(D)
0.60-0.69.....	3	45	36	6	1	12	20	2	(D)
0.70-0.79.....	2	402	286	49	7	99	207	34	...
0.80-0.89.....	2								
1.00 and over.....	3	97	62	13	1	25	49	4	...
Unclassified ¹	3								
MICA INDUSTRY									
United States, total.....	498	4,126	3,284	668	42	1,196	1,255	87	764
Less than 0.30.....	21	574	579	73	2	117	100	6	400
0.30-0.39.....	14	287	270	56	2	94	84	2	28
0.40-0.49.....	18	906	704	167	12	297	304	14	71
0.50-0.59.....	27	717	584	138	3	281	302	10	83
0.60-0.69.....	11	200	157	45	7	82	96	5	8
0.70-0.79.....	8	149	118	43	8	75	76	12	18
0.80-0.89.....	4	98	90	32	2	54	63	16	13
0.90-0.99.....	1								
1.00 and over.....	37	479	141	114	6	196	230	22	71
Unclassified ¹	357	716	641	...	...	...	...	...	72
NATIVE ASPHALT AND BITUMENS INDUSTRY									
United States, total.....	12	6,424	4,857	451	100	987	1,443	704	540
Less than 0.30.....	2	4,517	3,453	253	64	562	846	632	424
0.30-0.39.....	1								
0.40-0.49.....	1	979	663	79	16	170	274	83	24
0.50-0.59.....	5								
0.60-0.69.....	2	928	741	119	20	255	323	89	92
0.70-0.79.....	...								
1.00 and over.....	...	1							
Unclassified ¹	1								
PUMICE AND PUMICITE INDUSTRY									
United States, total.....	75	3,393	2,741	223	44	440	748	214	229
Less than 0.30.....	14	1,202	1,055	42	7	87	158	23	79
0.30-0.39.....	6	268	270	22	4	44	86	9	75
0.40-0.49.....	8	892	707	68	20	114	202	122	37
0.50-0.59.....	7	161	138	19	3	37	66	5	(D)
0.60-0.69.....	6	313	224	47	...	103	136	6	(D)
0.70-0.79.....	1	271	148	25	10	55	100	49	25
0.80-0.89.....	...								
0.90-0.99.....	1	286	199	...	...	...	...	...	8
1.00 and over.....	3								
Unclassified ¹	29								
TALC, SOAPSTONE, AND PYROPHYLLITE INDUSTRY									
United States, total.....	68	11,819	9,486	1,297	174	2,778	4,141	799	1,160
Less than 0.30.....	7	724	511	29	3	57	95	12	(D)
0.30-0.39.....	8	3,297	2,680	198	20	435	821	88	617
0.40-0.49.....	5	1,081	787	116	8	249	320	51	44
0.50-0.59.....	12	1,104	872	124	23	296	357	108	33
0.60-0.69.....	11	4,968	4,180	763	108	1,602	2,332	507	383
0.70-0.79.....	4	362	259	54	11	113	170	29	(D)
0.80-0.89.....	1								
0.90-0.99.....	1	74	80	13	1	26	46	4	36
1.00 and over.....	5								
Unclassified ¹	14	209	117	...	...	...	...	...	14

See footnotes at end of table.

Table 9.—SELECTED STATISTICS FOR MISCELLANEOUS NONMETALLIC MINERALS (EXCEPT FUELS) ESTABLISHMENTS, CLASSIFIED BY THE RATIO OF WAGES AND SALARIES TO VALUE ADDED IN MINING, BY INDUSTRY: 1954—Continued

(For explanation of column captions, see INTRODUCTION)

Industry, and ratio of wages and salaries to value added in mining	Number of establishments	Value of shipments (\$1,000)	Value added in mining (\$1,000)	Number of employees		Man-hours worked by production and development workers (1,000)	Wages and salaries		New capital expenditures (\$1,000)
				Production and development workers	All other employees		Production and development workers (\$1,000)	All other employees (\$1,000)	
PEAT INDUSTRY									
United States, total.....	88	2,326	1,800	321	32	637	829	111	181
Less than 0.30.....	9	288	227	25	...	41	54	...	31
0.30-0.39.....	5	144	148	18	4	27	33	14	24
0.40-0.49.....	16	438	332	54	2	105	139	4	25
0.50-0.59.....	8	614	427	60	5	148	209	20	11
0.60-0.69.....	8	330	257	60	2	131	156	7	8
0.70-0.79.....	1	302	239	52	13	105	140	52	16
0.80-0.89.....	4								
0.90-0.99.....	1								
1.00 and over.....	11	139	85	52	6	80	98	14	26
Unclassified ¹	25	71	85	...	...	...	...	...	40
VERMICULITE AND NONMETALLIC MINERALS, N.E.C., INDUSTRIES									
United States, total.....	70	24,860	17,437	1,374	394	2,703	5,258	2,062	1,930
Less than 0.30.....	14	1,296	1,037	64	7	144	218	36	81
0.30-0.39.....	9	14,451	10,283	699	204	1,344	2,614	1,199	1,066
0.40-0.49.....	8	4,339	3,154	233	68	501	1,031	391	480
0.50-0.59.....	12	2,926	2,025	240	80	436	852	273	222
0.60-0.69.....	2	1,306	640	79	22	167	352	107	5
0.70-0.79.....	2								
0.80-0.89.....	3								
0.90-0.99.....	2	437	263	59	13	111	191	56	65
1.00 and over.....	7								
Unclassified ¹	11	105	35	...	...	...	...	...	11

(D) Withheld to avoid approximately disclosing figures of individual companies.

¹Represents establishments reporting less than \$500 for wages and salaries.

Table 10.—HORSEPOWER OF POWER EQUIPMENT USED IN THE MISCELLANEOUS NONMETALLIC MINERALS (EXCEPT FUELS)

(For explanation of column captions,

	Industry, geographic division, and type of operation	Aggregate horsepower per production worker	Aggregate horsepower (prime movers and electric motors driven by purchased energy)				
			Total	Loading equipment	Transportation equipment		All other equipment
					Highway type	Other	
GYPSUM INDUSTRY							
1	United States, total.....	71	28,193	5,165	6,005	2,065	14,955
	Geographic Division						
2	East and South.....	50	13,814	1,788	1,415	395	10,216
3	Mountain.....	125	10,237	2,150	3,230	1,670	3,187
4	Pacific.....	106	4,142	1,227	1,360	...	1,555
	Type of Operation						
5	Open-pit mines.....	69	22,355	4,390	5,015	1,995	10,955
6	Combination open-pit and underground mines, under- ground mines, and separately-operated preparation plants.....	76	5,838	775	990	70	4,003
MICA INDUSTRY							
7	United States, total.....	(¹)	17,092	3,795	3,854	579	8,864
	Geographic Division						
8	Northeast and North Central.....	(¹)	2,272	280	617	60	1,315
9	South.....	(¹)	13,940	3,430	2,727	519	7,264
10	West.....	(¹)	880	85	510	...	285
	Type of Operation						
11	Producing establishments, total.....	(¹)	16,877	3,715	3,854	579	8,729
12	Open-pit mines.....	(¹)	11,053	2,639	2,549	539	5,326
13	Combination open-pit and underground mines, under- ground mines, and separately-operated preparation plants.....	(¹)	5,824	1,076	1,305	40	3,403
14	Nonproducing establishments.....	24	215	80	...	...	135
NATIVE ASPHALT AND BITUMENS INDUSTRY							
15	United States ²	69	31,340	4,213	11,221	1,188	14,718
PUMICE AND PUMICITE INDUSTRY							
16	United States, total.....	115	25,717	7,390	9,617	2,628	6,082
	Geographic Division						
17	West North Central and West South Central.....	47	1,088	196	348	100	444
18	Mountain.....	125	10,651	3,728	3,773	500	2,650
19	Pacific.....	122	13,978	3,466	5,496	2,028	2,988
TALC, SOAPSTONE, AND PYROPHYLLITE INDUSTRY							
20	United States, total.....	28	36,349	5,670	9,224	2,316	19,139
	Geographic Division						
21	Northeast.....	30	10,921	2,237	2,306	33	6,345
22	South.....	22	17,292	1,899	4,035	1,918	9,440
23	West.....	57	8,136	1,534	2,883	365	3,354
	Type of Operation						
24	Producing establishments, total.....	28	36,038	5,632	9,046	2,241	19,119
25	Open-pit mines ³	22	16,861	2,971	3,690	1,948	8,252
26	Underground mines and combination open-pit and underground mines.....	38	19,177	2,661	5,356	293	10,867
27	Nonproducing establishments.....	52	311	38	178	75	20
PEAT INDUSTRY							
28	United States, total.....	74	23,599	8,278	10,276	1,786	3,259
	Geographic Division						
29	New England.....	31	1,100	321	311	195	273
30	Middle Atlantic.....	75	4,055	1,482	1,863	150	560
31	North Central.....	42	5,954	2,830	1,697	564	863
32	South.....	79	4,893	1,160	2,794	270	669
33	West.....	(¹)	7,597	2,485	3,611	607	894
	Type of Operation						
34	Producing establishments ⁴	74	23,077	7,898	10,209	1,786	3,184
35	Nonproducing establishments.....	52	522	380	67	...	75
VERMICULITE AND NONMETALLIC MINERALS N.E.C. INDUSTRY							
36	United States, total.....	55	76,035	6,475	13,306	8,180	48,074
	Geographic Division						
37	East and South.....	53	20,339	2,737	5,063	1,758	10,781
38	Mountain.....	53	22,009	1,837	6,035	2,150	11,987
39	Pacific.....	58	33,687	1,901	2,208	4,272	25,306

¹See table 1, footnote 15.²See table 7, footnote 2.³See table 7, footnote 3.⁴See table 7, footnote 4.

INDUSTRIES, BY GEOGRAPHIC DIVISIONS AND TYPE OF OPERATION: 1954

see INTRODUCTION)

Prime movers (horsepower)							Electric motors (horsepower)						
Total	By type of equipment				By use		Total	By type of equipment			By source of energy		
	Loading equipment	Transportation equipment		All other equipment	Driving generators	Not driving generators		Loading equipment	Transportation equipment	All other equipment	Driven by purchased energy	Driven by energy generated and used at same establishment	
		Highway type	Other										
15,646	4,355	6,005	1,713	3,573	260	15,386	12,602	810	352	11,440	12,547	55	1
3,177	1,178	1,415	213	371	...	3,177	10,637	610	182	9,845	10,637	...	2
8,982	1,950	3,230	1,500	2,302	260	8,722	1,310	200	170	940	1,255	55	3
3,487	1,227	1,360	...	900	...	3,487	655	...	...	655	655	...	4
14,511	4,240	5,015	1,713	3,543	260	14,251	7,899	150	282	7,467	7,844	55	5
1,135	115	990	...	30	...	1,135	4,703	660	70	3,973	4,703	...	6
12,709	3,625	3,854	579	4,651	115	12,594	4,396	170	...	4,226	4,383	13	7
2,023	280	617	60	1,066	...	2,023	249	...	...	249	249	...	8
10,047	3,260	2,727	519	3,541	115	9,932	3,906	170	...	3,736	3,893	13	9
639	85	510	...	44	...	639	241	...	...	241	241	...	10
12,494	3,545	3,854	579	4,516	115	12,379	4,396	170	...	4,226	4,383	13	11
7,036	2,469	2,549	539	1,479	10	7,026	4,017	170	...	3,847	4,017	...	12
5,458	1,076	1,305	40	3,037	105	5,353	379	...	...	379	366	13	13
215	80	...	...	135	...	215	...	...	...	...	...	...	14
22,510	4,051	11,221	966	6,272	3,700	18,810	10,688	580	510	9,598	8,830	1,858	15
22,189	7,154	9,617	2,616	2,802	450	21,739	3,738	236	12	3,490	3,528	210	16
644	196	348	100	...	...	644	444	...	...	444	444	...	17
8,874	3,492	3,773	500	1,109	120	8,754	1,777	236	...	1,541	1,777	...	18
12,671	3,466	5,496	2,016	1,693	330	12,341	1,517	...	12	1,505	1,307	210	19
20,362	3,991	9,224	2,066	5,081	2,035	18,327	17,408	1,679	250	15,479	15,987	1,421	20
3,111	657	2,306	13	135	60	3,051	7,810	1,580	20	6,210	7,810	...	21
9,381	1,800	4,035	1,688	1,858	1,865	7,516	9,332	99	230	9,003	7,911	1,421	22
7,870	1,534	2,883	365	3,088	110	7,760	266	...	...	266	266	...	23
20,051	3,953	9,046	1,991	5,061	2,035	18,016	17,408	1,679	250	15,479	15,987	1,421	24
10,458	2,471	3,690	1,718	2,579	1,865	8,593	7,824	500	230	7,094	6,403	1,421	25
9,593	1,482	5,356	273	2,482	170	9,423	9,584	1,179	20	8,385	9,584	...	26
311	38	178	75	20	...	311	...	...	...	...	...	...	27
22,099	7,953	10,276	1,786	2,084	...	22,099	1,500	325	...	1,175	1,500	...	28
811	170	311	195	135	...	811	289	151	...	138	289	...	29
3,752	1,482	1,863	150	257	...	3,752	303	...	...	303	303	...	30
5,333	2,659	1,697	564	413	...	5,333	621	171	...	450	621	...	31
4,740	1,160	2,794	270	516	...	4,740	153	...	...	153	153	...	32
7,463	2,482	3,611	607	763	...	7,463	134	3	...	131	134	...	33
21,577	7,573	10,209	1,786	2,009	...	21,577	1,500	325	...	1,175	1,500	...	34
522	380	67	...	75	...	522	...	...	...	...	...	...	35
37,586	5,210	13,306	8,180	10,890	1,867	35,719	38,921	1,340	...	37,581	38,449	472	36
10,008	1,802	5,063	1,758	1,385	150	9,858	10,331	935	...	9,396	10,331	...	37
14,976	1,707	6,035	2,150	5,084	1,415	13,561	7,345	205	...	7,140	7,033	312	38
12,602	1,701	2,208	4,272	4,421	302	12,300	21,245	200	...	21,045	21,085	160	39

MINERAL INDUSTRIES—INDUSTRY STATISTICS

Table 11.—NUMBER OF POWER LOADING MACHINES IN THE MISCELLANEOUS NONMETALLIC MINERALS (EXCEPT

Type of loading equipment	Gypsum industry					Mica industry				
	United States		East and South	Mountain	Pacific	United States		East	South	West
	1954	1939				1954	1939			
1 Surface loading equipment, total.....	65	47	16	20	29	59	1	9	49	1
By kind of power used:										
2 Steam.....	...	1	...	...	...	2	...	...	2	...
3 Electric and Diesel-electric.....	...	20	...	...	...	3	...	...	3	...
4 Diesel.....	45	26	12	15	18	25	1	1	23	1
5 Gasoline and other.....	20	4	4	5	11	29	8	8	21	...
6 Power shovels, total.....	17	24	8	8	1	5	1	...	4	1
By kind of power used:										
7 Steam.....	...	1	...	...	...	...	...	...	...	...
8 Electric and Diesel-electric.....	...	13	...	...	...	...	...	...	...	...
9 Diesel.....	15	10	7	7	1	5	1	...	4	1
10 Gasoline and other.....	2	1	1	1	...	...	...	...	...	...
By dipper or bucket capacity (cubic yards)										
11 Less than 3.....	14	22	5	8	1	4	1	...	3	1
12 3-5 inclusive.....	3	2	3	...	...	1	...	...	1	...
13 6-12 inclusive.....	...	...	...	...	...	...	...	...	...	...
14 Dragline excavators, total.....	1	11	...	1	...	4	...	...	4	...
By kind of power used:										
15 Electric and Diesel-electric.....	...	4	...	...	...	...	...	...	...	...
16 Diesel.....	...	7	...	...	...	1	...	...	1	...
17 Gasoline and other.....	1	...	...	1	...	3	...	...	3	...
By dipper or bucket capacity (cubic yards)										
18 Less than 3.....	1	8	...	1	...	4	...	...	4	...
19 3-5 inclusive.....	...	2	...	...	...	...	...	...	...	...
20 6-12 inclusive.....	...	1	...	...	...	...	...	...	...	...
21 More than 12.....	...	...	...	...	...	...	...	...	...	...
22 Scraper loaders, total.....	21	1	...	2	19	7	...	1	6	...
By kind of power used:										
23 Electric and Diesel-electric.....	...	...	...	...	...	1	...	...	1	...
24 Diesel.....	16	1	...	2	14	6	...	1	5	...
25 Gasoline and other.....	5	...	...	...	5	...	...	...	...	...
By rated horsepower										
26 Less than 10.....	...	...	...	...	...	...	...	...	...	...
27 10-25 inclusive.....	2	1	...	...	2	1	...	...	1	...
28 26-100 inclusive.....	16	...	...	2	14	5	...	...	5	...
29 More than 100.....	3	...	...	...	3	1	...	1	...	...
30 Clamshell and orange peel loaders, total.....	...	4	...	...	...	...	...	...	...	...
By kind of power used:										
31 Steam.....	...	...	...	...	...	...	...	...	...	...
32 Electric and Diesel-electric.....	...	2	...	...	...	...	...	...	...	...
33 Diesel.....	...	2	...	...	...	...	...	...	...	...
34 Gasoline and other.....	...	...	...	...	...	...	...	...	...	...
35 Cranes and hoists, total.....	...	...	...	...	...	3	...	2	1	...
By kind of power used:										
36 Steam.....	...	...	...	...	...	...	1	...	...	...
37 Electric and Diesel-electric.....	...	...	...	...	...	...	...	...	...	...
38 Diesel.....	...	...	...	...	...	...	...	...	...	...
39 Gasoline and other.....	...	...	...	...	...	3	...	2	1	...
40 All other types of equipment.....	26	7	8	9	9	40	...	6	34	...
By kind of power used:										
41 Steam.....	...	...	...	...	...	2	...	...	2	...
42 Electric and Diesel-electric.....	...	1	...	...	...	2	...	...	2	...
43 Diesel.....	14	6	5	6	3	13	...	...	13	...
44 Gasoline and other.....	12	3	3	3	6	23	...	6	17	...
45 Underground loading equipment, total.....	7	11	2	5	...	6	...	1	5	...
By kind of power used:										
46 Electric and Diesel-electric.....	7	8	2	5	...	...	...	...	...	...
47 Compressed air.....	...	3	...	...	...	3	...	1	2	...
48 Diesel.....	...	...	...	...	...	...	...	...	...	...
49 Gasoline and other.....	...	...	...	...	...	3	...	...	3	...
50 Shovel loaders requiring a minimum working height of 8 feet or less (compressed air)...	...	1	...	...	...	...	...	...	...	...
51 Shovel loaders requiring a minimum working height of more than 8 feet, total.....	...	1	...	...	...	...	...	...	...	...
By kind of power used:										
52 Electric and Diesel-electric.....	...	1	...	...	...	...	...	...	...	...
53 Compressed air.....	...	...	...	...	...	...	...	...	...	...
54 Scraper loaders (including slushers), total..	4	8	...	...	4	...	...	...	...	...
By kind of power used:										
55 Electric and Diesel-electric.....	4	6	...	...	4	...	...	...	...	...
56 Compressed air.....	...	2	...	...	...	...	...	...	...	...
By rated horsepower:										
57 Less than 10.....	...	3	...	...	...	...	...	...	...	...
58 10-25 inclusive.....	4	3	...	...	4	...	...	...	...	...
59 26-100 inclusive.....	...	2	...	...	...	...	...	...	...	...
60 Other types of equipment, total.....	3	1	2	...	1	6	...	1	5	...
By kind of power used:										
61 Electric and Diesel-electric.....	3	1	2	...	1	...	...	...	...	...
62 Compressed air.....	...	...	...	...	...	3	...	1	2	...
63 Diesel.....	...	...	...	...	...	...	...	...	...	...
64 Gasoline and other.....	...	...	...	...	...	3	...	...	3	...

See footnotes at end of table.

FUELS) INDUSTRIES IN THE UNITED STATES, 1954 AND 1939, AND BY GEOGRAPHIC DIVISIONS, 1954

Native asphalt and bitumens industry		Pumice and pumicite industry					Talc, soapstone, and pyrophyllite industry					
United States		United States		West North Central and West South Central	Mountain	Pacific	United States		Northeast	South	West	
1954	1939	1954	1939				1954	1939				
37	43	87	8	5	41	41	62	12	13	30	19	1
12	20	...	...	...	...	...	...	3	...	...	...	2
3	4	5	2	...	4	1	17	3	6	11	...	3
15	19	39	6	...	21	18	26	6	6	9	11	4
7		43		5	16	22	19		10	8	5	
28	28	15	4	1	8	6	15	3	...	13	2	6
12	14	...	...	...	...	...	...	...	...	...	...	7
2	3	1	2	...	...	1	...	...	...	...	...	8
11	11	5	2	...	1	3	10	3	...	8	2	9
3		9		2		5	...		5	...	10	
28	26	15	3	1	8	6	15	3	...	13	2	11
...	2	...	...	...	...	...	...	...	...	...	...	12
...	...	...	1	...	...	...	...	...	...	...	...	13
2	3	3	1	...	...	3	2	...	...	1	1	14
1	1	...	...	...	...	...	1	...	...	1	...	15
1	2	1	1	...	...	1	1	...	...	...	1	16
		2				...	...	...	...	17		
2	3	3	1	...	...	3	2	...	...	1	1	18
...	...	...	...	...	...	...	...	...	...	...	...	19
...	...	...	...	...	...	...	...	...	...	...	...	20
...	...	...	...	...	...	...	...	...	...	...	...	21
1	...	19	1	...	7	12	7	1	...	3	4	22
...	...	...	...	...	...	...	...	1	...	...	...	23
...	...	13	1	...	5	8	4	...	...	...	4	24
1	...	6			2	4	3	...	...	3	...	25
1	...	2	...	...	1	1	1	...	...	...	1	26
...	...	1	...	...	...	1	...	1	...	...	...	27
...	...	14	1	...	6	8	6	...	...	3	3	28
...	...	2	...	...	...	2	...	...	...	...	...	29
2	5	...	...	...	...	...	...	1	...	...	...	30
...	5	...	...	...	...	...	...	1	...	...	...	31
...	...	...	...	...	...	...	...	...	...	...	...	32
2	...	...	...	...	...	...	...	...	...	...	...	33
...	...	...	...	...	...	...	...	...	...	...	...	34
2	5	...	...	...	...	...	16	7	5	8	3	35
...	1	...	...	...	...	...	...	2	...	...	...	36
...	...	...	...	...	...	...	12	2	5	7	...	37
2	4	...	...	...	...	...	...	3	...	...	...	38
...		4			...	1	3	39
2	2	50	2	4	26	20	22	...	8	5	9	40
...	...	...	...	...	...	...	...	...	...	...	...	41
...	...	4	...	...	4	...	4	...	1	3	...	42
...	2	20	2	...	14	6	11	...	6	1	4	43
2		26		4	8	14	7	...	1	1	5	44
7	2	...	1	...	...	...	58	5	21	5	32	45
5	...	...	1	...	...	...	4	2	4	...	...	46
...	2	...	...	...	...	...	53	2	17	5	31	47
...	...	...	...	...	...	...	...	1	...	...	...	48
2	1			1	49
...	...	...	...	...	...	...	10	1	6	...	4	50
...	2	...	...	...	...	...	2	1	...	1	1	51
...	...	...	...	...	...	...	...	...	...	...	...	52
...	2	...	...	...	...	...	2	1	...	...	...	53
5	...	...	1	...	...	...	43	2	15	4	24	54
5	...	...	1	...	...	...	4	2	4	...	...	55
...	...	...	...	...	...	...	39	...	11	4	24	56
5	...	...	...	...	...	...	10	...	...	...	10	57
...	...	...	1	...	...	...	16	2	3	...	13	58
...	...	...	...	...	...	...	17	...	12	4	1	59
2	...	...	...	...	...	...	3	1	...	...	3	60
...	...	...	...	...	...	...	...	...	...	...	...	61
...	...	...	...	...	...	...	2	...	...	...	...	62
...	...	...	...	...	...	...	...	...	...	...	...	63
2	...	...	...	...	...	...	1	1	...	...	...	64

Table 11.—NUMBER OF POWER LOADING MACHINES IN THE MISCELLANEOUS NONMETALLIC MINERALS (EXCEPT FUELS) INDUSTRIES IN THE UNITED STATES, 1954 AND 1939, AND BY GEOGRAPHIC DIVISIONS, 1954—Continued

Type of loading equipment	Peat industry							Vermiculite and Nonmetallic minerals, n.e.c., industries				
	United States		New England	Middle Atlantic	North Central	South	West	United States		East and South	Mountain	Pacific
	1954	1939 ¹						1954	1939			
Surface loading equipment, total	162	30	15	34	53	20	40	72	32	21	27	24
By kind of power used:												
Steam.....	...	4	...	...	...	...	...	...	3	...	...	...
Electric and Diesel-electric.....	14	...	10	1	2	...	1	7	11	4	2	1
Diesel.....	16	...	...	7	1	6	2	41	...	8	13	20
Gasoline and other.....	132	26	5	26	50	14	37	24	18	9	12	3
Power shovels, total.....	17	6	...	6	3	3	5	24	16	10	9	5
By kind of power used:												
Steam.....	...	2	...	...	...	...	...	...	3	...	...	...
Electric and Diesel-electric.....	...	...	...	...	...	...	...	5	4	4	...	1
Diesel.....	1	...	...	1	...	...	...	13	...	4	7	2
Gasoline and other.....	16	4	...	5	3	3	5	6	9	2	2	2
By dipper or bucket capacity (cubic yards)												
Less than 3.....	17	6	...	6	3	3	5	21	15	8	9	4
3-5 inclusive.....	...	...	...	...	...	...	...	2	1	1	...	1
6-12 inclusive.....	...	...	...	...	...	...	...	1	...	1	...	...
Dragline excavators, total.....	31	4	1	3	10	8	9	1	7	...	...	1
By kind of power used:												
Electric and Diesel-electric.....	...	1	...	...	...	...	...	...	4	...	...	...
Diesel.....	4	...	...	1	...	3	...	1	...	...	...	1
Gasoline and other.....	27	3	1	2	10	5	9	...	3	...	...	...
By dipper or bucket capacity (cubic yards)												
Less than 3.....	31	4	1	3	10	8	9	1	6	...	...	1
3-5 inclusive.....	...	...	...	...	...	...	...	...	1	...	...	...
6-12 inclusive.....	...	...	...	...	...	...	...	...	...	...	...	...
More than 12.....	...	...	...	...	...	...	...	...	...	...	...	...
Scraper loaders, total.....	26	1	...	10	12	2	2	18	...	1	4	13
By kind of power used:												
Electric and Diesel-electric.....	...	...	...	...	...	...	...	...	...	...	...	...
Diesel.....	8	...	...	5	1	1	1	15	...	1	1	13
Gasoline and other.....	18	1	...	5	11	1	1	3	...	...	3	...
By rated horsepower:												
Less than 10.....	3	1	...	...	2	...	1	...	...	...	...	...
10-25 inclusive.....	9	...	...	1	7	1	...	...	...	...	...	...
26-100 inclusive.....	14	...	...	9	3	1	1	16	...	...	4	12
More than 100.....	...	...	...	...	...	...	...	2	...	1	...	1
Clamshell and orange peel loaders, total.....	7	3	...	1	...	3	3	4	3	2	...	2
By kind of power used:												
Steam.....	...	1	...	...	...	...	...	...	...	...	...	...
Electric and Diesel-electric.....	...	...	...	...	...	...	...	...	1	...	...	...
Diesel.....	2	...	...	...	...	2	...	2	...	...	...	2
Gasoline and other.....	5	2	...	1	...	1	3	2	2	2	...	...
Cranes and hoists, total.....	3	...	...	...	...	...	3	...	...	...	...	...
By kind of power used:												
Steam.....	...	...	...	...	...	...	...	...	...	...	...	...
Electric and Diesel-electric.....	...	...	...	...	...	...	...	...	...	...	...	...
Diesel.....	...	...	...	...	...	...	...	...	...	...	...	...
Gasoline and other.....	3	...	...	...	...	...	3	...	...	...	...	...
All other types of equipment, total.....	78	16	14	14	28	4	18	25	26	8	14	3
By kind of power used:												
Steam.....	...	...	...	...	...	...	...	...	...	...	...	...
Electric and Diesel-electric.....	14	...	10	1	2	...	1	2	2	...	2	...
Diesel.....	1	...	...	...	...	...	1	10	...	3	5	2
Gasoline and other.....	63	16	4	13	26	4	16	13	4	5	7	1
Underground loading equipment, total ².....	...	...	...	...	...	...	...	18	...	1	15	2
By kind of power used:												
Electric and Diesel-electric.....	...	...	...	...	...	...	...	1	...	1	...	...
Compressed air.....	...	...	...	...	...	...	...	10	...	...	9	1
Diesel.....	...	...	...	...	...	...	...	1	...	...	1	...
Gasoline and other.....	...	...	...	...	...	...	...	6	...	...	5	1
Shovel loaders requiring a minimum working height of 8 feet or less (compressed air).....	...	...	...	...	...	...	...	3	...	...	3	...
Scraper loaders (including slushers) compressed air by rated horsepower less than 10.....	...	...	...	...	...	...	...	6	...	...	6	...
Other types of equipment, total.....	...	...	...	...	...	...	...	9	...	1	6	2
By kind of power used:												
Electric and Diesel-electric.....	...	...	...	...	...	...	...	1	...	1	...	...
Compressed air.....	...	...	...	...	...	...	...	1	...	...	...	1
Diesel.....	...	...	...	...	...	...	...	1	...	...	1	...
Gasoline and other.....	...	...	...	...	...	...	...	6	...	...	5	1

¹See table 1, footnote 5.²Includes two pumps.

Table 12.—MATERIALS, SUPPLIES, FUELS, AND ELECTRIC ENERGY USED IN THE MISCELLANEOUS NONMETALLIC MINERALS (EXCEPT FUELS) INDUSTRIES: 1954

(For explanation of line captions, see INTRODUCTION)

Item	Unit of measure for quantity	Gypsum industry		Mica industry		Native asphalt and bitumens industry				
		Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)			
Minerals prepared, total.....	1,000 short tons..	1,877	xxx	1,647	xxx	1,400	xxx			
Crude ore mined and prepared at the same establishment.....	....do.....	1,877	xxx	1,646	xxx	1,400	xxx		
Minerals received from other establishments.....	....do.....		924	1	34	...	...	
Supplies used.....	.....			xxx	xxx	564	xxx	1,251	
Fuels used, total.....	Million kwh equivalent.	73	171	49	151	61	137			
Bituminous coal.....	1,000 short tons..	(D)	(D)	(D)	(D)	2	12			
Distillate fuel oil.....	1,000 barrels....	19	82	17	82	17	64			
Residual fuel oil.....	....do.....		(D)	(D)	(D)	(D)	(1)		
Gas (natural and manufactured).....	Million cu. ft....			xxx	61	xxx	60	...	61	
Other fuels.....	.....								
Electric energy purchased.....	Million kwh.....	12	140	9	132	5	85			
Electric energy generated and used.....	....do.....	...	xxx	...	xxx	(D)	xxx		
		Pumice and pumicite industry		Talc, soapstone, and pyrophyllite industry		Peat industry		Vermiculite and Nonmetallic minerals, n.e.c., industries		
		Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	Quantity	Cost (\$1,000)	
Minerals prepared, total.....	1,111	xxx	502	xxx	205	xxx	1,480	xxx		
Crude ore mined and prepared at the same establishment.....	1,111	xxx	485	xxx	205	xxx	1,453	xxx		
Minerals received from other establishments.....		334	17	256	...	...	27	265	
Supplies used.....			xxx	xxx	1,671	xxx	321	xxx	4,649	
Fuels used, total.....	54	119	93	238	85	174	547	967		
Bituminous coal.....	...	...	2	20	6	39	...	...
Distillate fuel oil.....	6	27	36	153	6	28	58	231		
Residual fuel oil.....	2	6		(D)	(1)	(D)	(1)	84	332	
Gas (natural and manufactured).....	72	15			xxx	65	xxx	107	xxx	293
Other fuels.....	xxx	71	xxx					111		
Electric energy purchased.....	2	40	40	467	2	31	73	722		
Electric energy generated and used.....	...	xxx	(D)	xxx	...	xxx	1	xxx		

xxx Not applicable.

D Withheld to avoid approximately disclosing figures for individual companies.

¹Less than \$500.

Table 13.—WATER USE IN THE MISCELLANEOUS NONMETALLIC MINERALS (EXCEPT FUELS) INDUSTRIES IN THE UNITED STATES, BY GEOGRAPHIC DIVISIONS AND STATES: 1954

(For explanation of column captions, see INTRODUCTION)

Industry, geographic division, and State	Number of production and development workers	Value added in mining (\$1,000)	Water intake (except mine water)			Water discharged (except mine water) (Million gallons)	Mine water (million gallons)	
			Million gallons	Million gallons per production worker ¹	Gallons per dollar value added		Used	Drained and dis- charged
GYPSUM INDUSTRY								
United States.....	399	5,352	131	0.33	24	130	...	(D)
MICA INDUSTRY								
United States, total.....	668	3,284	937	(2)	285	897	85	345
Northeast and North Central.....	76	359	2	(2)	6	2	...	...
New Hampshire.....	48	175	2	0.04	11	2	...	...
South.....	569	2,731	934	(2)	342	894	85	345
North Carolina.....	521	2,548	(D)	(D)	(D)	(D)	85	238
Georgia.....	38	146	(D)	(D)	(D)	(D)	...	107
West.....	23	194	1	(2)	5	1	...	...
NATIVE ASPHALT AND BITUMENS INDUSTRY								
United States.....	451	4,857	34	0.08	7	34	4	24
PUMICE AND PUMICITE INDUSTRY								
United States.....	223	2,741	(D)	(D)	(D)	7	(D)	...
TALC, SOAPSTONE, AND PYROPHYLLITE INDUSTRY								
United States, total.....	1,297	9,486	320	0.25	34	289	4	132
Northeast.....	367	3,959	113	0.31	29	(D)	4	58
South.....	787	4,056	(D)	(D)	(D)	(D)	...	74
North Carolina.....	204	1,425	(D)	(D)	(D)	...	...	74
Maryland and Virginia.....	474	1,990	(D)	(D)	(D)	(D)	...	...
West.....	143	1,471	(D)	(D)	(D)	(D)	...	...
California.....	106	1,133	(D)	(D)	(D)	(D)	...	...
PEAT INDUSTRY								
United States.....	321	1,800	...	...	...	...	...	177
VERMICULITE AND NONMETALLIC MINERALS, N.E.C., INDUSTRIES								
United States, total.....	1,374	17,437	(D)	(D)	(D)	396	(D)	(D)
East and South.....	385	4,077	205	0.53	50	204	...	...
Mountain.....	412	4,899	(D)	(D)	(D)	82	(D)	(D)
Pacific.....	577	8,461	133	0.23	16	110	...	...
Industry, geographic division, and State	Gross water use, including recircu- lation (Million gallons)	Percent of total water intake (except mine water) by principal source					Not specified	
		Public water systems	Company surface water systems	Company ground water systems	Combined company surface and ground water systems			
GYPSUM INDUSTRY								
United States.....	131	4	8	88	...	...
MICA INDUSTRY								
United States, total.....	1,840	...	63	16	18	3		
Northeast and North Central.....	2	...	...	...	...	100		
New Hampshire.....	2	...	...	...	...	100		
South.....	1,837	...	64	16	18	2		
North Carolina.....	1,495	...	55	20	22	3		
Georgia.....	342	...	100	...	...	...
West.....	1	100	...	...	...	...
NATIVE ASPHALT AND BITUMENS INDUSTRY								
United States.....	154	...	35	...	9	56		
PUMICE AND PUMICITE INDUSTRY								
United States.....	27	...	86	14	...	...
TALC, SOAPSTONE, AND PYROPHYLLITE INDUSTRY								
United States, total.....	403	...	88	12	...	...
Northeast.....	141	...	66	34	...	...
South.....	261	...	100	...	...	...
North Carolina.....	(D)	...	100	...	...	...
Maryland and Virginia.....	(D)	...	100	...	...	...
West.....	(D)	...	...	100	...	...
California.....	(D)	...	...	100	...	...
PEAT INDUSTRY								
United States.....	...	...	...	...	...	...
VERMICULITE AND NONMETALLIC MINERALS, N.E.C., INDUSTRIES								
United States, total.....	1,176	7	67	23	3	...		
East and South.....	210	...	93	...	7	...		
Mountain.....	827	1	3	6	...	...
Pacific.....	139	23	...	77	...	...

¹For computations of water intake per production worker, including mine water used, see tables 3 and 4.²See table 1, footnote 15.

Appendix A

Alphabetic Index of Products of Mineral Establishments

This index provides an alphabetic list of the products of mineral establishments and the contract services performed by them. It includes all products for which separate statistics are shown, and also lists mineral products included in grouped items or referred to only in footnotes or in the industry descriptions. Selected secondary products of mineral establishments are also listed if separate statistics are shown for them. This list, however, does not contain entries for such details as grade of ore or extent of mineral preparation which are frequently shown in Table 5 of the industry reports. In general, all references to a particular mineral product in Table 5 of the industry reports are included, whether they represent data for it as a primary or secondary product of the specified industry. Additional data for the commodity may be included in Tables 1, 2, 3, and 4 of the same reports for which Table 5 references are given. References are included to product data shown in the industry summary reports, but no references are made to the values of mineral products appearing in Table 6 on pages A-26 and A-27 of the General Summary report.

Product	Page	Product	Page
A		Casinghead gas (natural gas from oil wells).....	
Abrasive stones, natural.....	14G-4, 5		13B-41-69; 13A-8; 13C-18-21; 13D-35-47
Abrasives, natural, except sand.....	14G-4, 5; 14A-9; 14C-21 (ftn. 4 and 10); 14H-23 (ftn. 8)	Celestite. See Chemical and fertilizer mineral mining, n.e.c.....	14H-2
Acidizing and other chemical treatment of wells.....	13D-35-47	Cement rock. See Limestone.....	14D-2
Aluminum ores. See Bauxite.....	10H-1	Cementing wells.....	13D-35-47
Amblygonite.....	14H-25 (ftn. 20); 14J-29 (ftn. 4)	Cerium. See Metallic ores, n.e.c.....	10K-1
Amphibole.....	14J-30	Chasers.....	14C-5
Andalusite. See Clay, ceramic, and refractory minerals, n.e.c.....	14F-2	Chemical and fertilizer minerals, n.e.c.	14H-23-25; 14A-10
Anhydrite.....	14J-30	Chemical raw material, liquefied petroleum gases.....	13C-9-13
Anthracite contract services, except stripping.....	11B-28; 11A-8	Chemical treatment of wells.....	13D-35-47
Anthracite, Pennsylvania. See Coal.		Chemicals, miscellaneous inorganic.....	14H-23 (ftn. 4)
Anthracite stripping contract services..	11B-30; 11A-8	China clay. See Kaolin and ball clay...	14F-2
Antimony ores. See Metallic ores, n.e.c.	10K-1	Chromium ores and concentrates.....	10I-18
Apatite. See Phosphate rock.....	14H-2	Chrysotile.....	14J-30
Aplite.....	14F-30, 31	Cinnabar. See Mercury ores.....	10K-1
Argillite. See Stone, n.e.c.....	14C-2	Clay, ceramic, and refractory minerals..	14F-30, 31; 14A-8, 9; 12A-51 (ftn. 5)
Arsenic minerals. See Chemical and fertilizer mineral mining, n.e.c.....	14H 2	Cleaning out, bailing out, or swabbing wells.....	13D-35-47
Asbestos.....	14J-30	Coal:	
Asphalt, native. See also Gilsonite.....	14J-29; 14A-10	Anthracite (Pennsylvania):	
Asphalt paving mixtures.....	14D-30; 14E-22	Mining.....	11B-30; 11A-8
B		Contract services, except stripping.....	11B-28; 11A-8
Ball clay.....	14F-30, 31; 14A-9	Stripping contract services.....	11B-30; 11A-8
Barite.....	14H-23-25; 10E-20, 22; 14A-9	Bituminous coal and lignite:	
Basalt. See Trap rock.....	14C-2; 14D-2	Mining.....	12A-50, 51, 53-56; 11A-8 14F-30 (ftn. 3, 7)
Bauxite.....	10H-4; 10A-7	Contract services.....	12A-52; 11A-8; 13D-47 (ftn. 7)
Bentonite.....	14F-30, 31; 14A-8	Semianthracite.....	12A-1
Beryllium:		Subbituminous.....	12A-1
Ores. See Metallic ores, n.e.c.....	10K-1	Cobalt ores.....	10I-1; 10I-4 (ftn. 3)
Concentrates.....	10K-10 (ftn. 1); 14F-30 (ftn. 6); 14H-23 (ftn. 8); 14J-29 (ftn. 4)	Colemanite.....	14H-25 (ftn. 14)
Bismuthnite.....	14H-25 (ftn. 20)	Columbium ores.....	10I-4 (ftn. 3)
Bitumens. See also Bituminous limestone and Bituminous sandstone.....	14J-29; 14A-10	Common clay and shale.....	14F-30, 31; 14G-4 (ftn. 2)
Bituminous coal. See Coal.....		Concrete products, precast.....	14D-30 (ftn. 4); 14E-22
Bituminous coal and lignite mining contract services.....	12A-52; 11A-8; 13D-47 (ftn. 7)	Concrete, ready-mixed.....	14D-30; 14E-22
Bituminous limestone.....	14J-30; 14D-2	Condensate, field.....	13B-41-69; 13A-8; 13D-35-47
Bituminous sandstone.....	14J-30; 14D-2	Condensate, raw cycle.....	13C-9-13; 13A-9
Bluestone. See Sandstone.....	14C-2	Contract services. See: Anthracite contract services, except stripping; Anthracite stripping contract services; Bituminous coal and lignite mining contract services; Metal mining contract services; Nonmetallic minerals (except fuels) contract services; Oil and gas field contract services.	
Borate minerals.....	14H-24; 14A-9	Copper:	
Borax.....	14H-25 (ftn. 14)	Ores.....	10D-10-12; 10A-6; 10C-18
Boric acid, natural.....	14H-25 (ftn. 14)	Concentrates.....	10D-10-12; 10A-6; 10B-14 (ftn. 6); 10C-18; 10E-20-23; 10I-18 (ftn. 7); 14H-23 (ftn. 8)
Boron minerals.....	14H-24, 25	Precipitates.....	10D-10-12; 10C-18; 10E-20-25; 14H-23 (ftn. 8)
Boulders, mixed, crushed and broken. See Stone, n.e.c.....	14D-2	Corundum.....	14G-1
Brucite.....	14F-30, 31; 14A-9	Crude petroleum.....	13B-41-69; 13A-8; 13D-35-47
Building, repairing, and dismantling rigs and derricks.....	13D-35-47; 13A-9	Cycle condensate, raw.....	13C-9-13; 13A-9
Burrstones, natural.....	14G-1	D	
C		Diabase, See Trap rock.....	14C-2; 14D-2
Calcareous marl.....	14D-30	Diamonds, industrial.....	14G-1
Calcareous tufa. See Limestone.....	14C-2; 14D-2		
Calcite.....	14J-31 (ftn. 12)		

Product	Page	Product	Page
Diaspore. See Fire clay.....	14F-2	Granite, crushed and broken.....	14D-30; 10B-14 (ftn. 6); 14A-7; 14B-11; 14F-30 (ftn. 7)
Diatomite.....	14J-29 (ftn. 6); 14J-30	Granite, dimension.....	14C-21, 22; 14A-6; 14B-11
Diorite. See Granite.....	14C-2; 14D-2	Granules, slate.....	14D-2
Dolomite. See Limestone.....	14C-2; 14D-2	Graphite.....	14J-31 (ftn. 12)
Dolomitic marble.....	14C-2; 14D-2	Gravel.....	14E-22; 14A-8; 14D-30; 14F-30 (ftn. 3, 5, 7); 14H-23 (ftn. 1)
Dragstones.....	14G-5	Greensand marl.....	14J-30
Drilling:		Greenstone. See Stone, n.e.c.....	14C-2
For anthracite mining.....	11B-28	Grinding pebbles.....	14G-5
For bituminous coal and lignite mining.....	12A-52; 13D-47 (ftn. 7)	Grindstones, natural.....	14G-5
Dry holes.....	13D-35-47; 13A-9; 13B-41-69	Guano.....	14H-25 (ftn. 20)
For metal mining.....	10J-6; 13D-47 (ftn. 7)	Gypsite.....	14J-30
For nonmetallic minerals (except fuels) mining.....	14I-6; 13D-47 (ftn. 7)	Gypsum.....	14J-30; 14A-10
Oil and gas wells.....	13D-35-47; 13A-9; 13B-41-69		
Service wells.....	13D-35-47; 13A-9; 13B-41-69	H	
Water wells.....	13D-35-47; 13A-9; 13B-41-69; 14I-6 (ftn. 2)	Hauling minerals and mine equipment beyond mine property.....	10J-6; 14I-6
Drilling in, spudding in, tailing in, and reworking wells.....	13D-35-47; 13B-41-69	Hauling oil- and gas-field supplies and equipment.....	13D-35-47; 13C-13 (ftn. 6)
Drips.....	13B-41-69; 13A-8; 13D-35-47	Hematite. See Iron ore.....	10B-1
Dry gas (natural gas from gas wells)....	13B-41-69; 13A-8; 13C-18-21; 13D-35-47	Hones.....	14G-5
Dumortierite. See Clay, ceramic, and refractory minerals, n.e.c.....	14F-2	Hubnerite. See Tungsten ores.....	10I-1
E		Hydrogen sulfide.....	13C-9-13
Emery.....	14G-5	I	
Ethane content of chemical raw materials	13C-9-13	Iceland spar.....	14J-31 (ftn. 12)
Erecting, cleaning, repairing, or dismantling lease tanks.....	13D-35-47	Ilmenite concentrates.....	10K-10
Excavating slush pits or cellars.....	13D-35-47	Installing production equipment, such as wellhead fittings, pumps, and engines..	13D-35-47
Exploration work.....	10J-6; 12A-52 (ftn. 3); 13D-35-47	Iron ores.....	10B-12-14; 10A-6; 10H-4
F		Iron oxide pigments, natural.....	14H-25 (ftn. 20)
Feldspar.....	14F-30, 31; 14A-9; 14E-22; 14G-4 (ftn. 2); 14J-29 (ftn. 4)	K	
Ferberite. See Tungsten ores.....	10I-1	Kaolin.....	14F-30, 31; 10H-4; 14A-9
Ferro-alloy ores, except vanadium.....	10I-13-18; 10A-7	Kernite.....	14H-25 (ftn. 14)
Fertilizer minerals, natural, n.e.c.....	14H-24, 25	Kerosine.....	13C-9-13
Field condensate.....	13B-41-69; 13A-8; 13D-35-47	Kyanite concentrates.....	14F-30, 31
Finished gasoline.....	13C-9-13	L	
Fire clay.....	14F-30, 31; 12A-51 (ftn. 5); 14A-8; 14E-22	Lead:	
Fluorspar.....	14H-23-25; 14A-9	Ores.....	10E-20-27; 10A-6; 10C-18
Foundry sand.....	14E-22; 14A-8	Concentrates.....	10E-20-27; 10C-18; 10G-7; 14H-23 (ftn. 1, 3)
Fuller's earth.....	14F-30, 31; 14A-9	Lepidolite. See Chemical and fertilizer mineral mining, n.e.c.....	14H-2
G		Lignaceous shale.....	14H-25 (ftn. 20)
Gabbro:		Lignite. See Coal.	
See Granite.....	14C-2	Lime, hydrated.....	14H-23 (ftn. 4)
See Trap rock.....	14D-2	Limestone, bituminous.....	14J-30; 14D-2
Ganister. See Sandstone.....	14D-3	Limestone, crushed and broken.....	14D-30; 14A-7; 14B-11; 10E-20, 22; 12A-51 (ftn. 5); 14C-21 (ftn. 2); 14F-30 (ftn. 3)
Garnet.....	14G-5	Limestone, dimension.....	14C-21; 14A-6; 14B-11
Gas, liquefied petroleum.....	13C-9-13	Limonite (brown ore). See Iron ore.....	10B-1
Gas, natural.....	13B-41-69; 13A-8; 13D-35-47	Liquefied petroleum gas.....	13C-9-13
Gasoline, finished.....	13C-9-13	Lithium minerals. See Chemical and fertilizer mineral mining, n.e.c.....	14H-2
Gasoline, natural.....	13C-9-13; 13A-9	Lode gold. See Gold, lode.	
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T		Whetstones.....	14G-5
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Tube-mill liners.....	14G-5		

Appendix B

Provisions of Law Relating to 1954 Census of Mineral Industries

(From Title 13 United States Code)

SECTION 131. The Secretary shall take, compile, and publish censuses of manufactures, of mineral industries, and of other businesses, including the distributive trades, service establishments, and transportation (exclusive of means of transportation for which statistics are required by law to be filed with, and are compiled and published by, a designated regulatory body), in the year 1954 and every fifth year thereafter, and each such census shall relate to the year immediately preceding the taking thereof: Provided, That the censuses of manufactures, of mineral industries, and of other businesses, including the distributive trades and service establishments, directed to be taken in the year 1954 relating to the year 1953, shall be taken instead in the year 1955 relating to year 1954. The censuses provided for in this section shall include the United States and its Territories and such Possessions as the Secretary may determine.

SECTION 224. Whoever, being the owner, official, agent, person in charge, or assistant to the person in charge, of any company, business, institution, establishment, religious body, or organization of any nature whatsoever, neglects or refuses, when requested by the Secretary or other authorized officer or employee of the Department of Commerce or bureau or agency thereof, whether such request be made by registered mail, by telegraph, by visiting representative, or by one or more of these methods, to answer completely and correctly to the best of his knowledge

all questions relating to his company, business, institution, establishment, religious body, or other organization, or to records or statistics in his official custody, contained on any census or other schedule prepared and submitted to him under the authority of this title, shall be fined not more than \$500 or imprisoned not more than sixty days, or both; and if he willfully gives a false answer to any such question, he shall be fined not more than \$10,000 or imprisoned not more than one year, or both.

SECTION 9. (a) Neither the Secretary, nor any other officer or employee of the Department of Commerce or bureau or agency thereof, may . . .

(1) use the information furnished under the provisions of this title for any purpose other than the statistical purposes for which it is supplied; or

(2) make any publication whereby the data furnished by any particular establishment or individual under this title can be identified, or

(3) permit anyone other than the sworn officers and employees of the Department or bureau or agency thereof to examine the individual reports.

List of Corrections

This volume has been prepared by assembling and binding portions of previously printed Subject and Industry Bulletins. This publication plan was adopted to reduce publication costs and to expedite issue of the

volume. The corrections appearing below represent needed changes which were discovered after printing the individual chapters and which could only have been made in this volume by reprinting the specified portions.

Page no.	Table	Item	Columns	Change	
				From--	To--
A-5	1	Number of preparation plants.....	3	1,503	2,618
A-11	3	Arkansas (line 41).....	16	69	72
		Oklahoma (line 43).....	4	(⁵)	⁴ 17,576
		California (line 57).....	5	⁴ 5126,024	⁴ 108,448
A-12	4	.....	16	103	109
		All mineral operations: Including crude petroleum and natural gas extraction 1919 (line 3).....	3	1,503	2,618
		Metal mining: 1939 (line 8).....	4	517,375	517,377
		1929 (line 9).....	7	9,802	9,813
		1919 (line 10).....	3	634	637
A-13	4	Metal mining: 1939 (line 8).....	10	14,775	14,728
		.....	14	14,647	14,628
		1929 (line 9).....	2	27,647	27,484
		.....	12	1,696	1,736
		1919 (line 10).....	14	24,623	24,727
A-16	4	.....	12	1,330	1,379
		Nonmetallic minerals (except fuels) mining: 1939 (line 7).....	6	81,306	81,287
		1929 (line 8).....	7	11,473	11,462
A-17	4	Nonmetallic minerals (except fuels) mining: 1939 (line 7).....	1	83,374	83,014
		.....	12	2,311	2,330
		.....	14	20,289	20,200
		1929 (line 8).....	1	114,691	116,691
		.....	2	31,678	31,608
A-23	5	Middle Atlantic (line 17).....	13	19,524	19,260
		New York (line 19).....	13	3,432	3,168
		East North Central (line 25).....	4	163,828	161,210
		.....	5	22,129	21,880
		Indiana (line 29).....	13	16,633	16,597
		Illinois (line 31).....	5	2,636	2,387
		Michigan (line 33).....	4	64,137	61,554
		Wisconsin (line 35).....	13	3,705	3,669
		West North Central (line 37).....	4	9,727	9,692
		North Dakota (line 45).....	13	18,697	18,841
		Delaware, Maryland, and the District of Columbia (line 55).....	13	745	890
		.....	13	436	476
		West South Central (line 1).....	4	839,553	828,580
		Arkansas (line 13).....	13	3,859	3,793
		Louisiana (line 15).....	4	215,291	203,038
A-25	5	Oklahoma (line 17).....	13	31,291	31,302
		Texas (line 19).....	4	497,791	499,071
		Mountain (line 21).....	2	303,088	303,275
		Montana (line 23).....	13	2,525	2,504
		Colorado (line 29).....	7	40,815	40,761
		Utah (line 35).....	2	43,260	43,447
		.....	4	33,327	33,425
		California (line 45).....	13	38,349	38,427
		Middle Atlantic, 1954.....	6	32,418	32,311
		Pennsylvania, 1954.....	8	11,252	11,359
		.....	6	25,025	24,918
		East North Central, 1954.....	8	8,961	9,068
		.....	6	31,215	32,103
		Ohio, 1954.....	8	21,153	13,533
		.....	9	24,546	31,278
C-8	2	Illinois, 1954.....	6	12,089	12,977
		.....	8	6,579	5,691
		.....	8	7,683	951
		.....	9	5,736	12,468
		West North Central, 1954.....	6	24,333	24,166
		.....	8	11,074	10,772
		.....	9	18,019	18,488
		Missouri, 1954.....	6	4,648	4,481
		.....	8	1,572	1,270
		.....	9	4,383	4,852
		Pacific, 1954.....	6	9,327	8,713
		.....	8	1,715	2,329
		California, 1954.....	6	7,072	6,458
		.....	8	1,192	1,806
E-8	3	Wisconsin, 1954.....	6	25	(¹)
E-9	3	California, 1954.....	1	103	109

LIST OF CORRECTIONS

Page no.	Table	Item	Columns	Change	
				From--	To--
F-6	2	New York, 1954.....	1	3,256	3,158
		Wisconsin, 1954.....	2	230	215
		West North Central, 1954.....	3	200	195
		Kansas, 1954.....	5	1,395	1,173
		Delaware, Maryland, and District of Columbia, 1954.....	5	526	304
F-7	2	Delaware, Maryland, and District of Columbia, 1954.....	1	485	476
		West South Central, 1954.....	3	2,034	3,068
		Texas, 1954.....	5	1,384	1,606
		Mountain, 1954.....	3	307	1,342
		New Mexico, 1954.....	5	754	976
		Pacific, 1954.....	3	3,042	1,744
		California, 1954.....	3	1,421	123
		California, 1954.....	3	2,453	2,722
F-13	4	California, 1954.....	3	2,289	2,558
		New York (line 10).....	1	230	215
		West North Central (line 19).....	8	1,395	1,173
		Kansas (line 26).....	8	526	304
		West South Central (line 40).....	8	1,384	1,606
F-18	6	Texas (line 44).....	8	754	976
		East South Central.....	8	35,427	36,596
		Alabama.....	8	12,827	13,996
		West South Central.....	8	2,764	1,532
10A-5	1	Mountain.....	8	39,187	39,250
		Boxhead.....	5	1909	91909
		Number of operating companies.....	6	27,494	27,460
		Number of establishments.....	10	7,459	7,462
		Number of mines and quarries.....	6	7,730	7,695
		Value of gross shipments.....	8	3,285	4,048
		Value of net shipments.....	5	368,238	369,238
		Value added in mining.....	10	54,554	54,595
		Number of persons engaged, total.....	2	517,375	517,377
		Production and development workers.....	5	349,242	350,242
		All other employees.....	7	156,521	157,740
		Production and development workers and All other employees.....	5	231,043	231,953
		Principal expenses designated below, total.....	6	130,126	131,055
		Wages of production and development workers.....	10	36,739	36,776
		Salaries of all other employees.....	3	125,890	125,901
		Wages of production and development workers and Salaries of all other employees.....	7	107,829	109,136
		Salaries of all other employees.....	10	53,521	53,576
		Supplies, Purchased fuel, and Purchased electric energy.....	7	107,829	103,032
		Supplies and Purchased fuel.....	7	53,521	6,104
		Contract work.....	10	343,452	343,289
		Development and exploration of mineral property.....	5	287,166	287,256
		New machinery and equipment.....	7	89,930	91,060
		Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	10	44,473	44,500
		Per production worker.....	7	63,535	58,368
		Horsepower rating of electric motors driven by energy generated at establishment.....	7	26,658	26,681
		Energy used.....	3	27,647	27,484
		Coal.....	7	723,025	723,310
		Add footnote 9 as follows:	10	17,815	17,819
		Except for number of operating companies and number of establishments, excludes data for 19 establishments for which separate figures are not available.	5	8,498	8,588
			7	73,370	73,375
			3	12,924	59,682
			2	14,775	14,728
			7	171	174
			7	1	2
			3	371	375
			2	14,676	14,628
			3	624,721	624,727
			4	3,765	3,768
10C-4-11	1	Title of table.....		1870, 1860, and 1850	1870, and 1860
10C-5	1	Heading.....	3-9	1939	1939
10C-14	3	Unit of measure correction (line 31).....	Stub	\$1,000	\$1
10D-3	1	Value added in mining.....	6	39,770	39,750
10D-5	2	Principal expenses designated below, total.....	6	1734,577	1734,597
		Crude ore and old tailings received for milling.....	6	(NA)	20
10E-14	3	Nevada, 1939.....	2	11,323	15,066
10G-4	3	Footnote 5.....		Arizona, 40 establishments	Arizona, 41 establishments
10K-2	1	Net value of shipments per man-hour (unit of measure correction).....	Stub	\$1,000	\$1
10K-8	4	Principal expenses designated below, total (unit of measure correction).....	Stub	do.	\$1,000
11A-4	1	Mercury metal produced per man-hour (line 23).....	} Stub	Mercury produced per man-hour	Mercury produced per 1,000 man-hours
		Mercury metal produced per man-hour (line 19).....			
		Number of mines, culm banks, and dredges (line 3).....	1 and 2	8,081	8,107

LIST OF CORRECTIONS

Corr. 3

Page no.	Table	Item	Columns	Change	
				From--	To--
11A-8	2	Number of mines, culm banks, and dredges.....	1 2 and 3	8,081 1,237	8,107 1,263
12A-70	9	United States, total.....	3	1,396,744	1,396,774
13C-3	1	Man-hours worked by production and related workers ⁴ (unit of measure correction)....	Stub	...	1,000
13D-9	3A	Water intake per production worker.....	3	0.57	0.07
13D-68	13	Spanner: From: Percent of total water intake by principal source To: Percent of total fresh water intake by principal source Boxhead: From: Combined public water and company surface water systems To: Combined public water and company surface and ground water systems	4-11 10		
14A-4	1	Number of operating companies.....	9	68,736	66,666
		Number of mines and quarries.....	9	22,609	6,640
			11	1,613	1,684
		Number of preparation plants.....	7	(NA)	592
		Value of shipments.....	8	123,608	106,504
			10	59,228	59,466
			11	20,310	20,661
		Value added in mining.....	8	103,615	86,511
			10	50,596	50,821
		Number of persons engaged, total.....	2	92,583	92,564
			3	107,844	107,833
			5	61,800	61,781
			6	75,515	75,504
			8	108,923	111,770
			10	90,171	90,489
			11	43,356	43,853
		Production and development workers.....	2	81,306	81,287
			5	54,614	54,595
			8	97,797	100,644
			10	85,256	85,551
		Production and development workers and All other employees.....	11	43,356	43,853
		All other employees.....	3	11,473	11,462
			6	7,506	7,495
			10	4,915	4,938
		Principal expenses designated below, total.....	2	172,356	171,996
			3	235,093	237,018
			5	111,571	111,211
			6	153,811	155,736
			10	41,344	41,442
			11	785	(NA)
		Wages of production and development workers.....	2	83,374	83,014
			3	114,691	116,691
			5	53,920	53,560
			6	76,677	78,677
		Wages of production and development workers and Salaries of all other employees.....	10	32,712	32,797
			11	785	(NA)
		Salaries of all other employees.....	3	31,678	31,608
			6	20,048	19,978
		Minerals received for preparation, Supplies, and Purchased fuel.....	10	8,577	8,588
		Contract work.....	10	55	57
		Development and exploration of mineral property.....	1	109,529	109,510
			3	5	5,135
			6	5	5,073
		Other construction.....	1	1011,370	1011,389
		Horsepower rating of power equipment (prime movers and electric motors driven by purchased energy), total.....	2	2,311	2,330
			5	1,550	1,569
			8	416	420
			10	76	79
		Per production worker.....	2 and 5	28	29
		Prime movers.....	2	1,198	1,217
			5	770	789
		Electric motors driven by purchased energy.....	8	31	35
		Energy used.....	2	20,289	20,200
			5	14,403	15,576
			6	21,685	21,735
		Coal.....	5	639	691
			6	1,485	1,494
			7	1,531	1,534
		Fuel oils.....	5	1,911	2,023
		Gas.....	5	15,987	17,509
		Electric energy purchased.....	5	571	606
		Electric energy generated and used.....	5	261	269
		Footnote 4 should read: "Except for number of operating companies and number of establishments, includes data for 19 metal mining establishments.			
14D-5	1	Lines 45 through 50.....	3	91	(NA)
14D-8	1	Stone received for preparation.....	1	6,636 Delete bracket 49	...
		Supplies ¹¹	1		6,636
		Stone received for preparation and Supplies.....	2		
		Horsepower rating of power equipment per production worker.....	5		79

Page no.	Table	Item	Columns	Change		
				From--	To--	
14D-25	3B	Stone received for preparation (line 26).....	1	{	...	
		Supplies (line 27).....	1		6,636	6,636
		Stone received for preparation and Supplies (lines 26 and 27).....	2	{	Delete bracket	
		Stone received for preparation (line 26).....	6			
		Supplies (line 27).....	6	{	4,701	4,701
		Stone received for preparation and Supplies (lines 26 and 27).....	7		Delete bracket	
		Stone received for preparation (line 26).....	8	{	669	669
		Supplies (line 27).....	8			
		Stone received for preparation and Supplies (lines 26 and 27).....	9	{	Delete bracket	
14D-63	12	Crushed and broken sandstone industry:				
		Minerals received for preparation (line 1).....	1, 11, & 15	{	(D)	...
		Minerals received for preparation (line 1).....	2			6,636	6,636
		Supplies used (line 2).....	2	{	Delete bracket	
		Minerals received for preparation and Supplies (lines 1 and 2).....	3 and 13			
		Minerals received for preparation (line 1).....	12	{	4,701	...
		Supplies used (line 2).....	12			4,701	4,701
		Minerals received for preparation (line 1).....	16	{	669	...
		Supplies used (line 2).....	16			669	669
14E-11	3	Fuel oils (line 45).....	3		6,043	60
14E-13	3	Horsepower rating of electric motors driven by energy generated and used at same establishment (line 42).....	10 and 11		25	(3)
		Electric energy generated and used (line 48).....	10 and 11		12	(3)
14E-15	3	Number of persons engaged, total (line 10).....	14		70	76
14E-18	3	Add footnote 3 as follows: ³ Less than one-half of the unit of measure specified.				
14F-23	3	United States, total.....	Boxhead		Delete ftn. 15	
14F-35	6A	Magnesite and Brucite:				
		United States, total				
		Delete "0" line.....	Stub, Col.1			
		Add the following lines:				
		20-49.....	Stub, Col.1		Blank	1
		50-99.....	Stub, Col.1		Blank	1
14H-9	1	Boxhead.....	9		1,810	1,870
14H-24	5B	Crushed flourspar (line 6).....	3		39,089	39
		Crude, crushed, and ground phosphate rock (ore or matrix) (line 22).....	2		¹⁵ 46,398	46,398
14H-44	13	Chemical and fertilizer mineral mining, n.e.c., industry--Continued				
		United States (lower bank).....	3		28,332	51,370
14J-12	2A	Boxhead:	6			
		From: Man-hours worked by production and development workers				
		To: Wages of production and development workers				
14J-16	3	Spanner:	1-7			
		From: Mica industry ³²				
		To: Mica industry				
14J-21	3	Delete footnote 32.				
14J-30	5B	Pumice and pumicite.....	5		86,577	87
14J-34	6	Peat industry:				
		United States:				
		10-19.....	2		53	530
14J-40	9	Native asphalt and bitumens industry:				
		Less than 0.30, 0.30-0.39, 0.40-0.49.....	8		632	532
14J-44	11	Cranes and hoists:				
		Steam (line 36).....	7		1	...

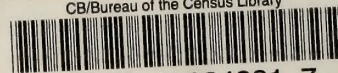
In addition to the corrections listed above, the following pages were reprinted:

MIB-5 through MIB-12

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